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AI Ignition

Ignite your AI curiosity with

Ashutosh Garg

Beena Ammanath: Hi, my name is Beena Ammanath, and today on AI Ignition we have Ashutosh Garg, CEO and co-founder of Eightfold AI. He holds over 10 years of machine learning and search experience, and previously was CTO and co-founder of Bloomreach. Ashutosh is also a prolific publisher and inventor who has authored more than 30 papers, a book on machine learning, and more than 50 patents. So, I'm really, really excited to speak with you. Welcome to the show.

Ashutosh Garg: Thank you. Super excited to be here.

Beena Ammanath: So, let's start with your background and how you came to be interested in the intersection of machine learning and human resources.

Ashutosh Garg: Absolutely. So, I got in touch with machine learning back in '94, during my undergrad in India. So, I have been doing it in some form or other since then—almost back 30 years now. In the second part of my career, I was at Google Research and then started a company, Bloom, leading the e-commerce space. And in both places I was applying machine learning to better understand what someone is likely to click on. What video someone is likely to watch next, what newspaper they're likely to read next, what book they're likely to shop for next. And there are two things: one is realizing that an employment is for people.

How can employment change, transform people's life on one side? And on the other side, can we use the same tools and technologies and apply them to better understand the learnability of the skills by people? So instead of just thinking about what they're likely to purchase next, what skills they can quickly learn next? And if you can apply it to that, then we can fundamentally change how we think of acquisition talent management. And that is how I came into the intersection of HR and machine learning, as you put it.

Beena Ammanath: I'm smiling because, you know, you move from putting personalized ads to actually personalizing a career development or talent development, right? And having built AI teams, I think there's not as much—there is emphasis on getting talent into those data science teams—but not as much focus on getting everybody else into the journey, right? Or developing the talent that already exists within the company.

So my background is more in legacy companies where I have been the first one bringing in data science into the organization, and it always starts from scratch. And I think there is tremendous value in the domain experts, in the employees that are already within those organizations, and the subject matter expertise that they already have. And if we can layer in the newer skill sets, then that's better than bringing in new talent because it's never—it's hitting a balance of subject matter expertise and the new skill sets that are needed, whether it's data engineering or machine learning. What's the best way to approach a scenario like that, where you're a legacy company and you are just beginning your AI journey?

Ashutosh Garg: That's a good question for companies as they're thinking about starting in AI. Think from the first principle, don't think about "how am I going to put AI on top of what I have?" Instead think about "what is a fundamental problem I'm trying to solve? What data is needed for that? What infrastructure is needed for that?" And build from the ground up. Because with AI, it's not about just simple recommendation or simple prediction—it starts by having the right data, the right algorithms in place, and then workflow solutions on top of it.

Beena Ammanath: Ashutosh, maybe, let's take a step back. What do you define as talent management? Where does it start, and where does it end?

Ashutosh Garg: The way we look at talent is historically, there has been a lot of fragmentation in this space. Companies have thought, "I need to hire people." There are some people who are going to come on board as full-time employees, some people who are going to come board as contractors. Then once they have been there with me for a while, I will have some talent management going on. And then some people will leave my organization, but the world has changed; today average tenure in Bay Asia is two years. What I learned in college is already outdated in four years. So, gone are the days where I study for four years and then I use it for 35 years in my career. In this new world where the people are constantly coming in and going out of enterprises, very few people are staying in the same job for more than three, four years.

They call it tour of duty, right? You go from one organization to another, one role to another, one function to another. Enterprises really need to start thinking about the holistic talent life cycle, which starts by first building a network of all talent that is either in the organization or outside, because what you're doing inside is governed and shaped by what is happening in the outside world. Then start by thinking of current management at the time when you are having a first touch with any individual—someone you are hiring today. But even if you're not hiring, you are learning a lot about them today. Next time when they come and apply to you, or you reach out to them, you already know a lot about them. The first performance management happens at that time of interview, where you're

So, in that sense, talent management should start at the time of interview, or at the time of you engaging with the candidate—not once they have joined—and then that should continue through the entire life cycle. Is everyday this person learning and growing, and not just their learning and growing—is that aligned with where I want to take my organization? What are the future needs of my organization? What assistance will I need in the future? And having that visibility and transparency into the talent so that I understand each and every employee in my company. Because quite a few times, the person sitting next to you might be the best candidate for the role for which you have been trying to have for the last six months and not succeeding. And it should not stop when the person leaves you, because, guess what? It's quite likely that three years from now that is a person you will be seeking out to again.

Beena Ammanath: So true. So true. So, what is AI's role in talent management?

Ashutosh Garg: Actually, what do we need in management? Why do we need talent management in the first place, if you think about that, right? As an individual outside that account, I have a certain purpose and I want to grow in my career—I want to have bigger impact. Almost every candidate you talk to—the first thing they'll say is, "How can I have more impact?" Now the world has become extremely complex. There is no linear path, or single path from job A to job B, or rule one to rule two; hundreds of thousands of paths exist. And what AI can help us do is identify all those parts for each individual, personalize them, and work with individuals so that they stay on track over time. Now, what does that mean? Let's make it very practical, right? There is someone in your team, they are a software engineer, and they want to become a data scientist. How can you help them get there? First understand what is that the need of the organization, and the how is the pipeline for that role? What will be the need in future? And AI can do the market analysis to help us understand how my organization is going to work over time, what my competitors are doing, what are the gaps? This is the right person for me to invest in to help get there, right?

Then, how should I invest in this person? Everyone learns differently; some are visual learners, some are not. Some try to learn by going to online classes, some try to learn on the job, some try to find a mentor, others want to sit by themselves and learn. So how can we think about what is the right path for each person based on what they have done in the past, their experiences? Then, all of us

have a different starting point. So, based on that, what is the ideal starting point for me? What is the right path for me? What learning modalities are best suited for me? The AI can chart out all that personalized stuff lot more efficiently with a lot more skill than humans can ever do.

Beena Ammanath: Yeah. And it obviously leads directly to that question of—something that's on top of mind for a lot of us now is around, you know, privacy, and as you are using AI in talent management, how do you make sure that you are respecting individual privacy, while at the same time providing the best experience for the talent, and for the organization?

Ashutosh Garg: That's a great question. And in fact, quite a few times as an employee, I'm concerned about what all I'm revealing, and—this is again—I think privacy is on the top of the mind, and another thing that might be top of the mind is bias/diversity. And all these things are related to one. So, first, AI can help us understand and hone down on what is really needed versus what is not needed. Second, is make it transparent.

So, the most important thing I can start with is telling you what data about you is relevant, and how I'm going to use it, and why I need it. And then also guide you through the decision-making process: "This is why I'm telling you this is a good thing for you" or "These are the gaps I see in your experience." So, for example, if I'm talking to you, I may come back and say, "You know what, I don't think you have a skill set." You might have that skill, and you may not have shared with me your experience that could tell me that you have business experience. Now, you have [the] opportunity to go share that, and you're a lot more comfortable sharing that. But on the other hand, you're like, "I really don't want to talk about that and stuff, I would rather they assume that I don't have this," and still give the freedom to that individual, right?

Beena Ammanath: Right.

Ashutosh Garg: Right. You should be able to do that. And third is, it also helps us eliminate our own biases in the same journey as human beings, right? Our biggest challenge is that we try to pattern match with limited data and almost something that we have not seen. We assume it does not exist; it can't be done. And we tend to believe we know everything. So that colors our judgment.

The simple example I give to people—for the audience right now, or for you, is can you, at this point, forget my gender? Probably not— you know my gender. There is no need for this in this interview; you don't need to know my gender, but that is how humans are. We're trying to pay attention to all those things; but with machines, with AI, it's much easier to manage that stuff. And that goes both on the privacy side and the bias side.

Beena Ammanath: So true. Also, I remember one of—and this was almost a decade ago—there was a project that my team was requested for from the HR team at this organization. And it was really—and their focus was on employee well-being and retention, and to make sure that they could identify at-risk employees and proactively provide them opportunities, or ways to retain them—especially if they were in the top tier of employees. And it was by using both internal data, where you had permission to use the data, but also, you know, it's very easy to get social media data, right? So, bringing that internal and external data together to actually predict what's the likelihood of this employee quitting. And then proactively addressing it as an organization.

And it hits that point where you're trying to retain your top talent, but it also is a point of creepiness, right? You don't really have permission, even though the employee as an individual might have posted something externally or is behaving in a certain way externally, right? So, you know, it gets into these icky areas where—nuanced areas—where you're not really sure what should be done. What's your advice as we start using more and more AI? You know, these use cases—even though this one is very ancient—you know, these use cases are going to come at us, right? How do you think about use cases like this, where you have to balance between doing the thing that's more positive for the organization, whereas it's borderline creepiness. How do think through it as an organization? What's your advice, and what's your experience in this space?

Ashutosh Garg: Actually, there are three or four multiple aspects in your question. One is, quite a few times we are very, very shortsighted. And if I were to take just this example—and let's peel it out—peel this one.

Let's say we do all this: We look at all the social media, we cross a boundary of being creepy, and we learn about this at-risk employee, and we try to retain them. Guess what? You might retain them for few months, but you might lose another thousand people from your company because they didn't like the creepiness.

So, you are going to hurt yourself big time by doing something like this. Second thing is that why, when enterprises think about this, the default mode is to be very, very reactive?

What's this [when] proactive? Guess what, by the time this person has started talking about his job on social media, this person has started applying to another company; it's too late. By the time this person is less engaged on email or calendar, it is too late—you need to be proactive about that. And that is where I started by saying that the very first performance management happens at the time of interview; talent management, career development, and retention of each and every person happens on day one. Now, historically, the only way you could do this is through humans involved, and the challenge is you can't scale that.

The manager is like, "I don't have time to talk to everyone in my team on a daily basis about their career development," which kind of makes sense. So, think of AI as that ultimate human scaler—but machines can do that. Your app on your phone can remind you both in the morning and early evening how your day is going. Are you growing in your career? What else you can do—what paths may exist for you. So, with AI, you can be a lot more proactive and be engaged daily so that you don't have to resort to those creepy tactics to identify people, right? Because they don't help.

And third is, the bar for AI is so much more than humans. So don't break the trust of people; invest in that. Make sure people understand, stay transparent, and that will go a long way.

Beena Ammanath: So true. And that's a project that I actually refused to do because, you know, you just have to think about all the negative risks—the implications of it. Unless you get explicit permission from every employee, I don't think it helps to retain talent. So, so true. Now, you know, diversity—and you brought this up as well—is a big, big factor and top of mind for most CEOs. Is there any way AI can help on bringing in diverse talent into an organization? What are your thoughts?

Ashutosh Garg: Big time. In fact, AI may be the only way to do that. Now, again, one funded bit: I ask what is the biggest, or one of the main differences between humans and machines? If anyone has seen the movie Men in Black, you remember that flash of light to erase human memory? That's science fiction.

To erase a computer's memory is a common mistake everyone has made.

Beena Ammanath: Yeah. <laugh>

Ashutosh Garg: But on a more serious note, with AI, you can manage your biases a lot more effectively, but for humans it's much, much harder.

So, there are few very practical ways in which AI can help. First, help you better understand your biases and your lack of knowledge. Depending upon which part of the world you are from, you might know about Jinan University, you might know about MIT, you might know about IIT, you might know about tech, you might know about EPFL. If you don't know something, you assume that that's not good—even though that may be the best college in that part of the world. So, AI can help level the playing field in terms of knowledge, first of all. Second, is then AI can help you better understand what is really needed for the job. Like when I was starting Eightfold—and that was my first time being a CEO—the common thing that I heard is that for you to be a good CEO, you need to be an extrovert. But over time, data assured that actually introverts can also make good CEOs. So, AI can really help you understand what is really to come true, what is data saying? Another example in which we use AI is anonymize the profiles. So, anything that is not relevant for the job, why should we even look at that?

Then AI can bring huge transparency into how things are behaving. So, for example, it may sometimes—I mean, I think today with all the education that has happened and the focus, I would say we mainly struggle with subconscious bias than conscious bias. Today, you can bring transparency into how your organization is growing. What are the pockets where there is more bias than others? Are we giving people the right opportunities? It can help us understand what people are likely to do next, their potential. Another very common example that happens is, around women, there is a lot of research that shows that women will not apply for a job unless they believe they have all the skills for the job. And men will apply even when they have very few skills required for the job.

Now, how do we put it in practice? Now, it's very, very hard from humans do that; with machines able to level the playing field by saying that even showing in those moments that you actually have those skills, other people like you who are applying for this job—So why are you not? So, I feel like AI is probably the only answer.

Beena Ammanath: I'm with you. I'm very optimistic about the power of AI, and all the cool things it can do and actually help us, you know, fix some of the way things have been done historically. So, I'm in big agreement. So, Ashutosh, you know, you do a lot of research, you write—I don't know how you get the time to do all this while running your own company—but what drives your research and curiosity in AI and machine learning? What do you like to focus on? And also, what keeps you up at night? What worries you?

Ashutosh Garg: I think the first one is realizing how far are we from where we need to be? Fifty percent of the world's population is women, but less than 10% of Fortune 500 CEOs are women. If you look at any organization, at entry level, you have an almost equal number of women entering the organization, but look at your mid-management and you'll be looking left, right, and center to figure out where women are. Where did they all disappear, right?

So, we still have a huge gap in our society, and this is just one problem: there's so many such problems up there. You need to solve these, and humans cannot do one at a time, right? We have to figure out a scalable solution for each of these, and AI can help a lot. And that is what's driving the curiosity to go after these problems. I mean, it's just fascinating what all we can do today. Who would've imagined, like really five, 10 years back, the new advances in AI?

But what keeps me up at night is that with any power comes great responsibility. And if you don't do it right, can you create more issues? So, do you really understand the algorithms you are using? Do you really understand the data you are using? Do you really understand the implication of what you are doing? In today's time, businesses can no longer be only about shareholder value; they have to think about the bigger impact they're having on the world. And I think that is what keeps me up at night, that are we doing enough? Are we able to protect, to safeguard, and to advance the world?

Beena Ammanath: So, you know, our listeners come from a variety of different industries, right? And I know every organization has a talent HR group, but as there are more and more AI companies that are coming into the world across different industries, what are some of the mistakes that other AI-focused companies are making that you hope to avoid?

Ashutosh Garg: I think this goes back to your very first question—don't treat AI as an item. Don't try to slap it on top of what you already have. First thing is what am I solving ? Like what is the fundamental problem you're trying to solve? So in our case, what is the fundamental problem? Fundamental problem is not—I mean, on the AI front—it's really about understanding people, understanding jobs, and matching the tool. It's not about how do I collect interview feedback? It's not about how do I schedule an interview? It's not about hybrid website. It's not about how I do some visual thing on my career portal in the company? The fundamental problem is about understanding people, and is your AI invested in them?

Second thing is, don't think that I can just download some libraries; I spend two weeks, and I'm an AI expert. Like I have been now doing this for 28 years, and it is complex. You can make mistakes and not realize for a long time. So, it's extremely important to stay focused—understand that these are complex things—so am I investing enough in the right resources? And third is, am I putting enough safeguards in place through analytics and through checks and balances, so that I'm staying on course? Now, I will give a simple example: historically, audits will happen once in a while, right?

Beena Ammanath: Yes.

Ashutosh Garg: Because they were all done manually. Why do you need to do them once every year? With AI, you can have all those checks and balances applied on a daily basis. In fact, every decision that you're making, every action you're taking, AI can help you flag, "Are you making a mistake? Are you going on the right path or not?" So, think about zero-time governance, not once a year governance.

Beena Ammanath: So true. And you know—and such timely advice for the C-suite and board members, you know, any leader within an organization. Ashutosh, there's one question, you know, especially in the space of talent management, which has—whether it's quiet quitting, or wellbeing, and equity, and think factors that were not discussed as actively in talent management space, you know, five, 10 years ago—it's on top of mind coming out of the pandemic. How do you think talent management has evolved, post-pandemic compared to three years ago? What are some of the big shifts that you've seen happening in the space over the last three years?

Ashutosh Garg: The big shift that has happened—I would say because partly pandemic exposed it more—is if you look at yourself— if you look at me, if you look at most people around us—we don't have to work. We are no longer, like, it's not that if we don't work, we won't survive; most of us will survive. And work is not the only thing in my life. The day I'm dying, I don't know how much I will be thinking about work, versus something else. And most people, as the pandemic happened, came very close realizing that, and unfortunately some people even came close to observing that.

And that is a fundamental shift that has happened as an employee, right? I have choices, I have options. If I'm not happy, I'm not going to be here. If I'm not seeing the impact of what I'm doing, I'm not going to be here. I'm not here just for money anymore. It has to be a lot more than that for me, and for the C-suite to realize that it's not only true for you, it's true for each and every employee in your company. As a CEO, I think "Yes, I can quit and I can relax at home. I don't have to work if I'm not happy." And that is true for each and every employee in my team as well.

And that is a shift that we have to bring into talent management: thinking about my people.

Beena Ammanath: Yeah. And you know, the importance of purpose, right? Why do you do what you do? And how is it bringing value to your overall life? So true. Ashutosh, this has been a very fascinating conversation. How can people stay connected with you? Where can they follow you on social media or otherwise, that would love to stay engaged in your thoughts on AI and talent management?

Ashutosh Garg: I'm active on social media. I'm on LinkedIn, sometimes on Twitter. Feel free to reach out to me. My first name @ eightfold is my email address. I would love to hear from everyone, and anyone who wants to help me in this problem, please come reach out to me. And anything I can do better, let me know. It's a big problem because I'm excited about this as well.

Beena Ammanath: Ashutosh, thanks again for being with us on the show. And thanks to our audience for tuning in to AI Ignition. Be sure to stay connected with the Deloitte AI Institute for more AI research and insights. Thank you all, take care.

Ashutosh Garg: Thank you.

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