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An Interview with Frida Polli (Co-Founder and CEO of pymetrics): Using AI in Recruitment, Pivoting from Research to Business, and Creating a Flexible Work Culture

Dr. Frida Polli is the co-founder and CEO of pymetrics, a platform using behavioral data and ethical AI to help organizations like Unilever, LinkedIn, and Accenture better understand their workforce as well as make fairer and more predictive people decisions. The pymetrics talent matching engine aims to match every candidate to their best-fit job accurately and fairly, offering solutions beyond just recruiting, powering various stages of the talent lifecycle including internal mobility and workforce reskilling.

Dr. Polli is a trained neuroscientist turned startup founder; after spending a decade in academia at Harvard and MIT, she sought to apply the science from the lab to real-world problems, leading her to found pymetrics out of business school at HBS. Dr. Polli has become a global thought leader on both the future of work and ethical AI, including how the latter will play a critical role in shaping this future.

Dr. Polli has presented at many of the largest scientific and world conferences including the World Economic Forum in Davos, TED, and at the President's Circle at the National Academy of Sciences. She has appeared on several of the

featured in major global publications including the Economist, WSJ, NYT, and Financial Times. Today, pymetrics serves around 100 global enterprise clients and, in 2019, ranked #338 on the Inc. 5000 list as well as #30 on the first-ever Forbes AI 50 list of "America's Most Promising AI Companies.

Business Today (**Grace Hong**): Prior to creating pymetrics, you conducted an impressive amount of neuroscience research. A lot of people imagine tech entrepreneurs coming from a computer science or otherwise tech-based background. What brought you from neuroscience into the startup world?

Frida Polli: I spent ten years as an academic neuroscientist, being a grad student and post-doc at Harvard and MIT. While I really liked the research I was doing, I wasn't excited about the lack of application. That's what led me to pursue an MBA. It wasn't something that I had planned, but I knew I wanted to do something more applied with my research, though I just didn't know what that would be. I applied to Harvard Business School thinking, "Hey, I want to be an entrepreneur." While I was there, I was struck by recruiting–it's what students do for two years at business school. The entire process was super inefficient. The types of things that we'd been doing in the lab—evaluating people and predicting outcomes—seemed so relevant to the recruiting problem, and it became a typical entrepreneurial story of having a cross-pollination of fields and seeing a problem that you thought you could fix. That's how my journey occurred.

going from a research background into business school?

FP: I received a lot of negative feedback for going to an MBA program from my science colleagues, who were saying that an MBA nowadays is not a worthy degree, you're not going to learn anything, and you already have a degree. I think that's bad advice. One piece of advice I would give to anyone with a science background is to get some experience in business.

"An MBA is not necessarily an experience in business, but it definitely teaches you—at least in the HBS case method—how to make decisions with incomplete information and a lot of uncertainty, which is the opposite of what you do in science. "

Getting some relevant business experience and seeing whether you like it and whether you're good at it is critical. Otherwise, it may not work out so well. You should also try to surround yourself with people who have done this before. A critical piece to our success has been bringing on business executives, and they have a lot more experience navigating the world of business than I do.

BT: Speaking on team, I noticed that the pymetrics team is composed of PhD's, a diversity analytics officer, and more. How did you go about building your team and figuring out these different roles?

that's hardly the case. A lot of things that happen at a startup are iterative. We started out knowing that we needed to build out an assessment and we needed data science, so we hired engineers and data scientists. The additional pieces we needed became more and more clear as the company progressed, and that continues to be the case. We work in a regulated field, so we hired a general counsel and a head of industrial and organizational psychology. There will continue to be hires that we make because of the evolution of the company. We hired a policy analyst recently because we're getting a lot of policy work, but it's truly about being responsive and following the evolution of the business.

BT: It's amazing to hear how growth has accelerated for pymetrics, and you now have offices in London and Singapore – is there any reason that you chose those cities, and how do they differ from the office in New York?

FP: We started pitching to companies and realized that a lot of companies that were interested in buying us were not necessarily headquartered in the US or solely operating in the US. As a result, we started to think about international expansion. Singapore is an HR hub for a lot of companies, so that's why Singapore became an obvious location. We also have offices in Australia because it has always been forward-thinking in HR. We have an office in London for our European initiatives and because it's an obvious location for any Fortune 500 company to have a major presence. We mainly followed the companies that we were selling to or were interested in.

reason why it may be so?

FP: No, I don't feel like [the US is] not an HR hub. It's because the US has more of a focus on regulation than countries in EMEA or APAC. It's not that they're more or less of an HR hub. The US remains quite innovative in many ways, but I do think there is increased focus on litigation, making certain products in regulated industries face different challenges than they would elsewhere.

BT: Moving on to the product itself, one of the challenges faced by AI is that it itself can be biased due to whatever biases are held by software engineers behind the code. How does pymetrics avoid this trap of potentially using biased AI algorithms?

FP: We have an auditing technique that we've open sourced, and it allows us to check for bias and if we find it, we eliminate it.

"That's an important thing to keep in mind—there are ways to audit out biased algorithms. We've been at the forefront of that. "

It's going to be a critical component of what we continue to do in the future.

BT: I'd like to ask another question related to the students using pymetrics. A lot of the personality traits in the test results might illustrate

span, which may not fit into a role for a certain job, but this doesn't necessarily mean that student cannot change, nor is it a measurement of their passion. How does pymetrics seek to address this issue of personality standardization?

FP: I think about this a lot. On the one hand, nobody wants to be pigeonholed. On the other hand, I think saying that you're going to be awesome at every single thing you try is not productive either because you're just going to learn the hard way what you are and are not suited for.

"How do you balance that desire to have agency and control over our lives and pointing people in the direction of something that may be a better fit for them than others?"

You won't go through pymetrics one time in your entire life. For a lot of people, it's a once-a-year thing, and we'll pick up on that change. We try to message the fact that falling on different ends of the spectrum of the things that we measure still can make you an excellent candidate for many different jobs. It doesn't pigeonhole you into one career. You probably have many different careers that you are well-suited for.

Pymetrics is also being used alongside other factors; it's not the only resource used in decision-making. There are multiple ways in which people can be well-suited for something.

"It's a probabilistic estimate—it's not a yes-no answer to what you're good at, but more similar to saying that you'll probably be good at this more than that."

I don't think any tool used in hiring goes beyond that. Even for a resume review, there could be many people you reject that could be a good fit, but you do have to draw the line somewhere. We try to have people keep that in mind. It's not being used in isolation—there are other data points being used, and we tell companies that it's a probabilistic estimate and therefore it should be used in that way.

BT: I agree, and after taking the test myself, pymetrics does do a good job of illustrating that no matter which side of the spectrum I'm on, it's positive on both ends.

FP: Historically, we've been made to feel that we're not smart or don't test well, and once we fail, we may not be successful in life. What pymetrics tries to do is to emphasize that we're not a test. We're gauging your place on a number of different attributes, where either end of the spectrum could be positive, and it just depends on the role. Let's say we analyze how attentive you are to detail. That could be great for certain jobs, but it's actually a detriment in other jobs. It's telling people not whether they're good or bad categorically, but that your constellation of attributes makes you more likely to be successful in certain types of roles. We're not softening the message—there's a considerable amount of value to that, but it's not as black and white as other types of testing experiences. For example, for college applications, schools have

from these opportunities. That's the worst testing experience because it's assuming that people are either above or below that threshold and don't lie on a spectrum.

The main reason why it's not deterministic is because every algorithm for every job is different. We're not saying to people that they're not good at marketing, but we're saying, "Hey, you might not be the best fit for marketing at this specific company." Each algorithm is as unique as each algorithm by Google connecting you to a restaurant. It's very precise in terms of the level of granularity at which it's making these probabilistic estimates.

"No one should view it as saying you're categorically good or bad at any particular role or industry. It's much more specific to company and job level."

BT: What do you think the ideal job or talent market will look like? Will it be something dominated by algorithms or run by humans moderating the process?

FP: First of all, if we don't already think the recruiting process is being dominated by algorithms, we're kidding ourselves. If you think about LinkedIn and Indeed, these platforms are 100% algorithms-driven. The types of candidates and jobs that are being recommended by these platforms are entirely algorithmically-driven. Even in the job application

process your resume.

"It's a bit of a false argument to say we're entering an age of algorithms. We've already entered that phase. What we can hope for is that these algorithms are better-performing. "

Right now, most of these algorithms are taking the approach that we're all looking for the same type of person, which creates a false great candidate and talent shortage all over again. Ideally, we would move towards a world where algorithms are more specific, in the way I've described pymetrics. I think it's always going to be a blending of people working with algorithms. Recruiters or hiring managers are not going to be made obsolete, but they must become more savvy in understanding what algorithms are doing and how they should be interpreted.

BT: What are your thoughts on the software as a service (SaaS) model that pymetrics uses and businesses' willingness to pay for it?

FP: Pymetrics is a 100% SaaS business model. I personally think that the companies that are more willing to pay for [pymetrics] are the ones that are more interested in getting things right. They're not just using some ATS functionality to look for keywords, which is a lot cheaper but doesn't return the same types of results. The companies that are building in-class recruiting processes use software as a service, and as time goes on, costs of producers will decrease, and SaaS will be more and more widely adopted. Just like any other technology, if people are really desperate in

the software first.

BT: I'd like to talk about your profile as an entrepreneur a bit. Compared to a lot of founders out there, you're quite unique. I remember trying to schedule this call, and you had very rigid times for when you would arrive at work or set time aside to spend with your family. How do your views on work life balance inform the culture at pymetrics?

FP: Before I had kids, I obviously spent a lot of time working. By the time I started pymetrics, however, I had a seven-year-old, and I was a single parent. It definitely put natural constraints on my ability to work in an office for twelve or fifteen hours a day. Not only that, being a parent made me more efficient. Prior to having kids, I was in the office, but I wasn't necessarily being efficient with my time. It's similar to the old adage of "Work smarter, not harder."

"We all work hard, but at the end of the day, it's about optimizing your time, not just spending lots and lots of time working."

As a result, I made it very clear that there's morning time and evening time for my kids and developed a culture from there, but I still get a lot of work done. Sometimes it might be getting on the computer while my kids are asleep or carving out some hours on the weekend.

The way that it's flowed into the company is that everyone is expected to do their work, and there's no excuse for not getting your work done. It

People work, but it's not like the office is packed from 7 am to 10 pm. It provides people with more flexibility to have a life, which then makes people more willing to go to the extra mile to do things. There was actually an article in the *New York Times* on whether millennials are redefining work, and it said that millennials expect less of a separation between work and home. They're more willing to have those boundaries be good, but they also expect more flexibility. I don't think there's anything wrong with that, as long as productivity remains the same. What's really interesting is that another company did a remote worker vs office worker study and found no difference in their productivity. People were shocked because they expected remote workers to have lower productivity. I don't know any research that supports the fact that flexible hours or remote working conditions do indeed decrease productivity or whether all these standards put on the non-working environment are valid. However, I do think it's dated to require everybody to be in the office until a certain time, and that model might have been built by people who didn't have kids or had to go home to take care of their kids.