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Artificial intelligence (AI) is at an inflection point. Businesses such as Amazon, Netflix, and Spotify have gained a formidable competitive advantage by applying AI to deliver experiences to their customers that no human being could have done without AI. But for AI to fulfill its promise of making society better, AI needs to overcome numerous challenges such as:

- Bias being built into Al-based products.
- A lack of inclusiveness.
- Consumer trust issues.

Al in and of itself is not the problem. No, the issue is how organizations develop and apply Al. At Centific, we believe that businesses can make Al more valuable, trustworthy, and inclusive through an approach we call mindful Al.

What Is Mindful AI?

We define Mindful AI as follows: developing AI-based products that put the needs of people first. Mindful AI considers especially the emotional wants and needs of all people for which an AI product is designed – not just a privileged few. When businesses practice mindful AI, they develop AI-based products are more relevant and useful to all the people they serve.

To be mindful, Al must be human-centered, responsible, and trustworthy.

Al Is Human-Centered and Responsible

Al must solve problems that put people at the center of the experience or else people will not adopt Al. Being human-centered and responsible means that a business keeps the needs of people at the forefront of every decision from the inception to the completion of a product that uses Al. To be human-centered, an Al product needs to solve real problems people encounter every day, be user-friendly, and not feel impersonal.

Responsible AI ensures that AI systems are free of biases and that they are grounded in ethics. It is about being mindful of how, why, and where data is created, how it is synthesized by AI systems, and how it is used in making a decision.

It's crucial that the teams preparing the data for an AI app rely on a diverse team of globally-based people to train AI applications to be inclusive and bias-free. For example, at Centific, we first understand the purpose of their AI applications and their intended outcomes and impacts using human-centered design frameworks. We then ensure that the data we generate, curate, and label meet those expectations in a way that is contextual, relevant, and unbiased.

Another way for a business to do so is to work with under-represented communities to be more inclusive and less biased.

Al Is Trustworthy

What exactly does trustworthiness mean? We believe trust stems from a business:

- Being transparent about how it is using Al.
- Developing Al applications that people feel comfortable using.

Trust is not necessarily a question of whether one trusts technology to do good, but whether one trusts technology to do its job reliably. This is why businesses are paying more attention to capabilities such as AI localization, defined as training AI-based products and services to adapt to local cultures and languages. A voice-based product, e-commerce site, or streaming service must understand the differences between Canadian French and French; or that in China, red is considered to be an attractive color because it symbolizes good luck. AI-based products and services don't know these things unless people train them using fair, unbiased, and locally relevant data. And an AI engine requires even more data at a far greater scale. (For example, for one of our clients, Centific delivered 30 million words of translation within eight weeks.) Consequently, more people are needed to train AI to deliver a better result.

How We Practice Mindful AI at Centific

Mindful AI is more than a concept – it's also a reality. At Centific, we operationalize mindful AI through:

- A process. Our process spans all phases of Al-based product development, including discovery, preparation, build, and scale. To ensure that our process is rigorous, we use a repeatable methodology, FUEL. FUEL relies on principles of design thinking and lean innovation to road test and develop Al responsibly. In the early stages of developing an Alfueled product, a development team might apply design thinking techniques such as design sprints for developing prototypes of products quickly and cost-effectively. Design sprints are structured to help product designers stay focused on customers as they go from ideation to development. They could be used for multiple customer personas befitting the diversity of our global population. But design sprints alone do not solve problems; they need to be used as part of a broader methodology to scale a product idea, which is where FUEL comes into play.
- **Tools** such as the Mindful Al Canvas help product design teams conceive of products from the start with people at the center.
- **People** in the loop to train Al-powered applications with data that is unbiased and inclusive. We provide rely on globally crowdsourced resources who possess in-market subject matter expertise, mastery of 200+ languages, and insight into local forms of expressions such as emoji on different social apps.
- **Technology** to scale our solutions. For instance, our crowdsourced team uses our OneForma platform to teach AI models to make accurate decisions. LoopTalk, our voice AI data generation capability, makes it possible for our team to train voice recognition models in order to better understand regional accents/non-typical pronunciations of certain words in a target market. Doing so helps our clients make AI more inclusive.

People Need a Common Platform

Our global team relies on a single data collection and curation platform to train Al-based applications. OneForma mitigates against bias by doing the following:

- Being mindful of how we curate and interpret data sources. If not, biases inherent in data generation and algorithmic development processes will transfer into Al applications.
- Ensuring data sampling criteria and training data preparation reflect existing social and cultural paradigms.
- Ensuring that algorithm tuning includes de-biasing models and potential impact as core requirements. Doing so requires being mindful of the data DNA and being purposeful about the intended outcomes.

Being mindful begins with data generation, curation, and annotation to ensure that potential biases are addressed prior to the data being used in training Al algorithms; and that's exactly what OneForma does.

How Everything Comes Together

As noted above, one common application of mindful AI is AI localization. Our expertise with AI localization makes it possible for our clients to make their AI applications more inclusive and personalized, respecting critical nuances in local language and user experiences that can make or break the credibility of an AI solution from one country to the next. For example, we design our applications for personalized and localized contexts, including languages, dialects, and accents in voice-based applications. That way, an app brings the same level of voice experience sophistication to every language, from English to under-represented languages. The last mile in making AI pervasive and trustworthy is localizing and personalizing content and experiences. OneForma enables that for our clients, thereby transforming the industry while helping AI applications become

more inclusive and equitable.

Learn more about our approach to AI localization in our recently published blog post "AI Localization: What It Is, and How to Do It Right."

Contact Centific

Mindful AI is not a solution. It's an approach. There is no magic bullet or wand that will make AI more responsible and trustworthy. AI will always be evolving by its very nature. But Mindful AI takes the guesswork out of the process. Contact Centific to get started.

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