designing for the user experience of machine learning systems- Caroline Sinders

There hasn't been a formal conversation around constitutes 'good' design and data visualization for machine learning- yet. User experience design has had IDEO championing human centric design, web design has had a much needed push with accessibility standards, but machine learning hasn't gone through any of these trends. This could be partially because machine learning is still a new field and partially because it is an incredibly technical one. But I think design is inherent in creating more transparency and understanding around machine learning, and the opaqueness within machine learning and artificial intelligence is such a problem that the White House
created a series of initiatives around this. As part of my fellowship at BuzzFeed, I am creating a series of open source machine learning UX templates, with the current name 'temperamental ui' to explore creating coherent and transparent open source UX design patterns. The template is an easy way to help engineers create more human centered design around any kind of product they create using machine learning with a focus on helping illuminate what the algorithms are doing within the product for users. It's an effort to help create more transparency around algorithms. Machine learning systems 'learn' from user input, so the data is constantly changing, and what the algorithm 'decides' is also constantly shifting.

This question has been plaguing me for a year: can I create/test ethical UI interfaces for machine learning applications that are applicable to *all* users, not just technical ones? Can it be informed by nature? Can the UI constantly be shifting like the data? Can it be ethical? Ethical meaning transparent, ethical meaning making users aware of what data is being used, and easy to understand, open source so everyone can use it. Machine learning is a black box of information and technology that is using big data- user data, all sorts of data, and that has ethically ramifications, AND it's going to radically change product design. So, how can I create templates for designers and technologists who don't have a background in machine learning, that is focusing on ethically uses of data and can I share it? The wrong data set with a not great algorithm will create false patterns in data; it will create inaccuracies. If a person doesn't understand machine learning or data science, they may never pick up on those false patterns.