

UNDERSTANDING YOUR AI

QUICKLIZARD



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Who is in Charge?



For the better part of the last forty years, humans have trusted computers to do what we tell them to do. When we tell the computer to apply bold or italics to a document, change a font, or erase paragraphs of text, we can reasonably assume the computer will do what we want. When we click on a link to an article, our computer brings up the article. It listens to us when we direct it to play a video, send a direct message, or play a game.

The logic behind the trust is fairly simple. We've tried all these things, and for the most part, computers do what we tell them to do. They help us with everything from the art of design to the cold calculations of spreadsheets.

But artificial intelligence turns our relationship with computers upside down. Instead of the machines doing what we tell them to do, they expect us to listen to their advice, and follow their leadership and direction.

For businesses, that can be a very scary proposition.



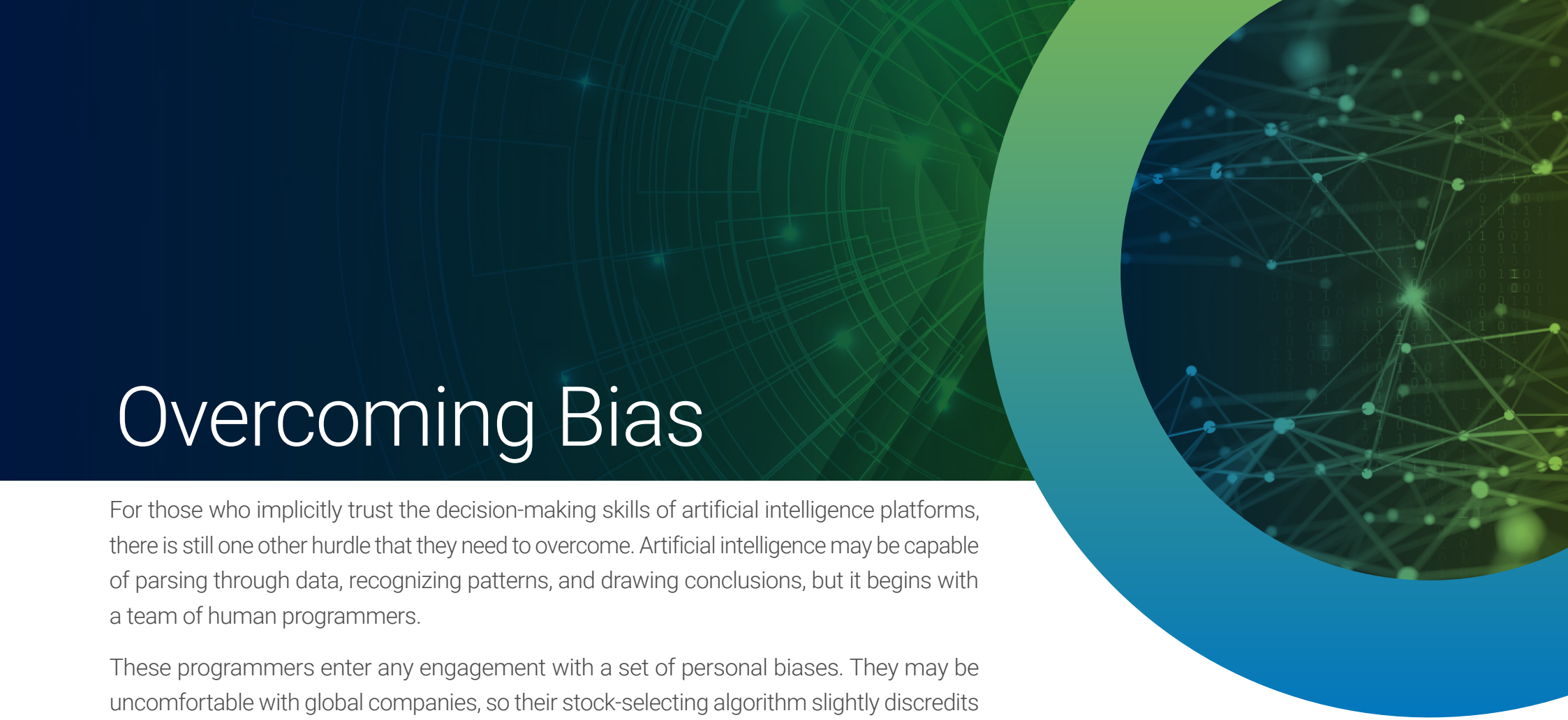
The Black Box

Most people have a very limited understanding of computer programming. We know that there are programs that make the computer work, but we don't really know how it works.

So when a computer advises us on a making an important decision, we don't know what the basis is for that decision. We know words like algorithms, machine learning, and artificial intelligence, but most professionals have a rudimentary understanding of those terms.

Sure, we understand that the computer evaluates a number of data points in making a decision, but for many who haven't used an AI platform before, the process feels very similar to a Magic Eight Ball, with its 20 randomly generated responses to any question.

And so for many, black box AI systems which don't explain or justify decisions are untenable.



Overcoming Bias

For those who implicitly trust the decision-making skills of artificial intelligence platforms, there is still one other hurdle that they need to overcome. Artificial intelligence may be capable of parsing through data, recognizing patterns, and drawing conclusions, but it begins with a team of human programmers.

These programmers enter any engagement with a set of personal biases. They may be uncomfortable with global companies, so their stock-selecting algorithm slightly discredits foreign-based companies, or they may be biased toward some challenges while shying away from others.

For businesses relying on artificial intelligence engines to make decisions, it can be quite misleading if they don't understand the preprogrammed biases that were intentionally or subconsciously included in the algorithm.



Regulatory Challenges

For many businesses that have to answer to regulators, including financial institutions and real estate companies, black box artificial intelligence solutions present a difficult complication.

Gate keepers within the company have to explain to regulators and compliance officers the different ways they ensure that they are compliant. While some artificial intelligence solutions are accepted by regulators, many are not.

For example, financial regulators expect financial institutions to explain how they are protecting their banks from being involved in money laundering. Simply hiding behind a black box artificial intelligence platform and saying the machine is watching the accounts generally won't be enough.

Developing Trust



The key for businesses to truly embrace artificial intelligence engines is to engender trust between the people running the system and the system. Building that trust requires stakeholders to be able to explain and justify the reason for their decision making. No one wants to walk into a meeting with the CEO, and when questioned about results, point and say the AI Engine thought it was a good idea.

For artificial intelligence solutions to be truly valued by businesses, its decision-making processes, as well as the reasons for decisions, need to be transparent. This doesn't mean that every single piece of data needs to be presented to the employees relying on the machine, but they should receive some type of explanation as to the reason for the decision, and be able to access all data that went into a decision should the need arise.

Explainable AI

All this brings us to Explainable AI.

According to Gartner, Explainable AI is a set of capabilities that can describe a model, point out strengths and weaknesses, predict behavior and identify any potential bias. Furthermore, it should be able to articulate the reasons for its recommendation or decision, which enables its human operators to evaluate and assess the decision-making strengths of the AI engine. AI governance relies on this information, so organizations can judge the effectiveness of the platform based not only on results, but on the way it evaluates data.

In the case of Quicklizard, with its AI-based dynamic pricing engine, that means our customers should be able to understand some of the factors involved in pricing recommendations. Justifications for price recommendations can include competitor analysis, sales history, or clickstream data, to mention a few.

When Quicklizard's AI-based pricing engine recommends a price, it may not go into the details of its model-driven recommendation, but it does provide users with the broad-strokes reasoning behind its price.

What Does Explainable AI Enable?



Explainable AI allows employees to put more trust in their artificial intelligence engine. By increasing the transparency of the decision making, system users can justify to their superiors why decisions were made. It also empowers employees to overrule recommendations suggested by the AI, when their own experience and expertise advise against making a move.

Explainable AI also helps protect organizations from bias. When organizations have a better understanding of where recommendations come from, they can counter those biases based on their understanding of a situation.

How can AI Systems Explain their Outputs?

There are any number of techniques AI engines can use to communicate the reasoning behind any recommendations that they have. For simpler systems, AI engines can produce deliverables such as decision trees, which shows the steps taken to arrive at a conclusion.

For more complex systems, the AI engine can simplify the steps taken to reach a conclusion, highlighting the most important factors that were used. These models provide system users with a better understanding of the results, which empowers them to implement the AI engine's recommendation.

In Quicklizard's case, its AI engine advises users of the reasons for its recommendation. When system users see that the price change is due to competitor price changes, inventory overstock, or internal sales goals reasons, it generates trust between the AI engine and the people responsible for living with those results.

Creating a Winning Pricing Formula



Dynamic pricing has arrived in full force. Consumers are no longer surprised when they see price changes on airline prices, toll roads that adjust prices every 15 minutes, or taxis that add a surge charge during peak hours.

For retailers looking to introduce dynamic pricing, an AI-based pricing engine is invaluable. The system analyzes price changes and can be responsive in real-time to marketplace changes. But for an AI engine to be successfully integrated into a workplace culture, you need a system that justifies its pricing recommendations. Once users understand and trust the system, they allow it to do its work and help reach company sales targets.

Want to learn more about explainable AI and dynamic pricing? Contact Quicklizard today to schedule your dynamic pricing demo.

www.quicklizard.com



QUICKLIZARD

Quicklizard is a global solution provider that helps retailers make smart real-time pricing decisions across online and offline channels. Relying on accurate data analysis, QL's dynamic AI platform allows businesses to adjust prices with maximum precision, quickness, ease and efficiency, as a basis for enhanced profit and revenue.