Transparency

As the digital world evolves and more organizations incorporate artificial intelligence (AI) and machine learning into their products and services, we also need to clearly understand how transparency is translated into this important digital tool.

MHS is a trusted, global research, neuroscience, and bioinformatics company that aims to provide data-driven insights that predict and improve individual and organizational success. By the very nature of what we do, we are stewards of the personal information our customers provide. We use that data to understand individual behavior and develop effective interventions. As such, we believe that it is imperative that we have a well-articulated and easy-to-follow Trust Framework that governs how we interact with the data that we are entrusted with. The MHS Trust Framework has four pillars: Ethics, Stewardship, Transparency, and Accountability. This paper delves deeper into the Transparency pillar to provide more context around our transparency statement.

Transparency is a fundamental component of trust. In the digital world, transparency applies to how organizations operate in a digital environment; gaining consent, being open about data collection and use policies, sharing information freely on topics like security, privacy, and compliance, and responding effectively and appropriately to customer concerns and questions. Transparency at this level can easily be handled through organizational policies, training, and leadership support.

AI and machine learning have become part of most organizations' day-to-day. Therefore, we must pay additional attention to transparency in these systems, whether the AI is used to predict individual behavior, such as who will buy what and when, or whether it is used in more routine ways to manage day-to-day systems and operations.

Three distinct principles define what an AI system that operates transparently must exhibit: Detectability, Explainability, and Freedom from Deception. For this paper, I will use the term "Integrity" instead of "Freedom from Deception." Each of these principles are necessary components of transparency, and they need to be considered and addressed to ensure that an AI system is not a black box full of mystery and magic; but instead, is a business system that provides a logical, visible, and understandable outcome. These principles of transparency in AI systems are encompassing, and they can apply to how an organization collects, manages, and stores data, as well as how it uses data in decision-making systems powered by artificial intelligence techniques such as machine learning.

Detectability

An organization must ensure that clients trust their systems and processes. It is not an overstatement to say that a lack of trust between clients and a business is an existential risk. Clients and system users must understand if and when data collection, storage, and automated decision-making algorithms are in use. In today's world, no consumer expects any interaction with a digital system to be free from AI or decision-making algorithms. However, they should expect to know when one is used. Knowledge of the use of these systems, or lack thereof, has become an increasing concern for end users, regulators, and businesses. For years, big technology companies have been building algorithms that drive what you see, how you purchase, and what advertisements and product recommendations are pushed out to you. Not all have done this without direct consent from the end users, but at the very least, most have done this without explicitly letting us know what happens. The adage, "If you aren't paying for the product, you are the product," came of age in our modern digital and online world.

My husband and I share the same Amazon account, as I am sure many families do. Imagine how upset he was to discover the Amazon searches he was doing for a present for me popped up as ads later in the local newsfeed I read online daily. Although there was no overt indication that Amazon would use his search history this way, we have all experienced some impact on our online advertising when we do something in a browser. Some have even shared unsubstantiated stories of people who swear that their conversations near a digital personal assistant device later influence their advertising offers.

Logically, it makes sense that data gathered in one forum may be used to influence activity in another. Still, the feeling that this was done without your knowing or explicit consent erodes trust and faith in systems and organizations.

Explainability

Computer systems are often viewed as mythical or magical systems that are beyond the average person's grasp. I don't know much about the mechanics of computers. Still, I expect to understand better how algorithms directly affect my life and work or at least have an opportunity to learn more about them. For example, if I apply for a bank loan, I expect to provide input information about my income, such as my debt or whether I have defaulted on a loan. I also understand that this information is fed into an algorithm that determines whether my loan application is approved, for how much, and at what interest rate. There are times when we are asked to provide information that doesn't seem to be relevant to the purpose at hand. It is crucial for organizations to stick to what matters or to explain why they require additional information and how it will be used. The collection and use of information that seems irrelevant, or can't easily be explained, reduces trust in the algorithms, the systems, and the company itself.

Integrity

There have been many articles, both in the mainstream media and on social media, regarding the misuse of data and the misapplication of automated decision-making systems. These stories include instances where considerable effort was required to deliberately deceive customers about using their data or decision-making systems.

A Trust Framework is designed to govern the collection and use of data and processes, requiring the systems and their applications to be free from deceit and pretense. To effectively provide accurate information to clients, we must collect and use a wide range of data and apply automated algorithms. However, there is no need to resort to deceit or pretense to do our job accurately.

Transparency at MHS boils down to our clients and users understanding what information is collected, why it is collected, how it is used, and when automated processing or decision systems are utilized. This does not mean that all data and algorithms must be made available to all people, but quite the opposite; these algorithms are a core part of our intellectual property, and our assessments are regulated tools. There needs to be a balance between intellectual property protection and implementation transparency.

Further, transparency means that when algorithms and data processing systems are made available to appropriately qualified individuals for inspection, they can fully understand how data is gathered. In any digital business, there is a constant tension between protecting intellectual property and business trade secrets and providing enough information to meet transparency needs. The decision criteria to evaluate these priorities and outcomes are constantly evolving. One method we utilize at MHS to help manage this tension is explicit guidelines, policies, and frameworks used to manage our research, processes, and systems.

Our MHS Trust Framework is the base for our employees and customers to manage the collection, storage, and processing of data appropriately, and the framework, just as the ever-changing world we operate in, is under constant revision. Perhaps Peter Drucker summarized our ever-changing world and the need for frameworks and leadership to guide us best when he wrote, "The greatest danger in times of turbulence is not the turbulence – it is to act with yesterday's logic."

Hazel Wheldon
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Have Questions? Get in touch with our team!