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Unconscious Bias in Technology

My team has been appointed to review the database infrastructure of our retail company, which is currently utilizing Oracle. Our company is considering migrating to Microsoft Azure and would like our team to analyze unconscious biases in this migration decision. For the purposes of this analysis, we have decided to use Elsbach and Stigliani's unconscious bias framework, and we will discuss how these technologies could be mysterious, nonhuman, and complex in the way that they are presented.

Oracle Database was founded in 1977 and was the first commercially available relational database management system (RDBMS) (Oracle). Since then, Oracle database has gone through 45 years of innovation and development that include enhancements such as a portable version, stored program units, internet computing, grid computing, and a lot more (Oracle). On the other hand, Microsoft Azure was founded in 2008, 31 years after Oracle, and was launched as a "cloud computing operating system which was targeted at businesses developers without additional coding" (Microsoft). The platform soon turned into a giant, and with the release of Kubernetes, Microsoft launched Azure Arc, which allows its users to manage virtual machines and physical or on-premises machines from a single control plane (Microsoft). Needless to say, Azure has a competitive advantage as it has managed to combine legacy systems with modern technologies (Microsoft).

Now that we have a basic understanding of the Oracle and Microsoft Azure databases, we will present an argument for why there may be an unconscious bias in the adoption of Microsoft Azure, as well as how the new technology is mysterious or unknown. Lafferty and Goldsmith hypothesized that people were willing to adopt new technologies simply because they believed that new was better than old (Elsbach and Stigliani 189). Furthermore, there is evidence to suggest that business managers who would want to shift from Oracle to Azure might be doing so because they believe that Azure might result in more probable success and consider the technology superior to Oracle simply due to their own bias that new is better than old (Elsbach and Stigliani 189). One of the reasons why executives might associate new technologies with a higher probability of success is due to exaggerated and repetitive stories of the capabilities of these tools (Elsbach and Stigliani 190). Clark et al. (2016) predicted that simply mentioning new technological tools would trigger the association between new technologies and success in a person's mind (Elsbach and Stigliani 190).

Studies conducted by various researchers and presented by Elsbach and Stigliani suggest that society considers new technologies to be superior to comparative older technologies due to marketing schemes that focus on keywords such as “innovative,” “first of its kind,” and “new” (Elsbach and Stigliani 191). Furthermore, a study conducted by Coggio in 2015 provided evidence that decision makers at an organization were willing to adopt a new management system that they believed was superior to their current system, even though their employees did not have the expertise to use the new system (Elsbach and Stigliani 191).

To mitigate this type of decision-making process, managers need to approach the adoption of new technologies from a different angle. Companies should not believe in the marketing keywords used to push new tools and the accompanying success stories without conducting their own research. Before incorporating new systems into their operations, organizations should carefully consider the cost of training staff to use new technology and solicit feedback from the employees who will be using the new systems. Additionally, it would be wise for our organization to hire the services of an independent researcher to conduct a careful analysis of Azure’s offerings to see if they are compatible with our organization’s infrastructure.

Moving on, it is likely that our organization’s leaders opted to migrate to Microsoft Azure because Azure has been endorsed by respected leaders in the field and also because of its brand name (Elsbach and Stigliani 194). We will now review evidence that suggests that new technologies are complex and difficult to understand and therefore require a much greater level of understanding than most organizations consider. Zucker and Darby (1996) found that attaching a well-known scientist to a new technology proposal increased its chances of being developed (Elsbach and Stigliani 194). Elsbach and Stigliani believe that if a technology is endorsed by a legitimate person, it increases its trustworthiness with the public and increases in value (194). The perceived notion is that a public figure’s approval helps alleviate the public’s fears of a system’s potential risks and lowers its propensity for failure in their minds (Elsbach and Stigliani 194).

Furthermore, the paper presents a deficit model of public acceptance that theorizes that the public believes that they have “deficient” knowledge of the new technology, whereas the expert endorsing the product possesses “sufficient” knowledge and is ultimately trustworthy, leading to the adoption of the new technology (Elsbach and Stigliani 195). In a study conducted by Venkatesh and Davis (2000), they found evidence that the public was more accepting of new technologies that had been endorsed and considered them valuable because of the belief that “others who are important to me think I should use the system” (Elsbach and Stigliani 195).

In today’s ever-changing world, it is more important than ever that organizations do not fall for marketing ploys. As professionals, we know that endorsements are only marketing schemes wherein a public figure endorses a product without any knowledge of it. We have seen public figures distance themselves from a product when it comes under scrutiny, further requiring the need for an organization to carry out its own assessment of a service or a product. It

is the organization's responsibility to have a "sufficient" amount of knowledge about Microsoft Azure before migrating to it, and not simply do so because it is made by Microsoft.

One of the last perspectives of unconscious bias that we will analyze our organization's migration decision through is the evidence that suggests that new information is alien or non-human (Elsbach and Stigliani 192). This theory suggests that people put their trust in information technology systems that can relate to their "humanness in appearance and performance" (Elsbach and Stigliani 192). To explain the concept of humanness in appearance further, we can imagine a system that utilizes a human voice and human images, whereas humanness in performance utilizes soft tools such as politeness and friendliness (Elsbach and Stigliani 192). In a study conducted by Schaefer (2016), technologies that had a human-centric approach and appeared more human-like and interacted like humans were preferred over their counterparts (Elsbach and Stigliani 192). By designing your technology system with a solid foundation in human-likeness, it can be perceived as more trustworthy (Elsbach and Stigliani 192).

The executives at our organization need to consider that they might be switching over to Microsoft Azure due to its more human-like performance compared to Oracle (Elsbach and Stigliani 192). For example, Azure might allow more input from its users, allowing them more control over the decision-making process and having more personalized and polite error messages (Elsbach and Stigliani 192). Such small intricacies built into the software could potentially lead our executives to develop an unconscious bias towards the new technology that might disguise itself as trust (Elsbach and Stigliani 192). Subsequently, if a system can portray its social presence and act as if it is psychologically present in its interactions with a user, it can initiate a sense of trust between the machine and the person (Elsbach and Stigliani 193). Through the use of tools such as human voice, emotive text, and human images, the database can present a human-like appearance even if its functions are rudimentary (Elsbach and Stigliani 193).

Our organization's leaders need to focus on the functionality of Microsoft Azure and whether it can perform the functions required by our organization without paying much heed to its interface. It goes without saying that the user interface of the software that they use daily needs to be top-notch, but it cannot come at the expense of functionality. Our organization can arrange a demo of their services with the Microsoft team and let them sell their product by showcasing how their offerings help our business before considering the migration process.

In conclusion, our team has presented arguments that our organization's top management should consider before finalizing the migration from Oracle database to Microsoft Azure. We focused on unconscious biases that our managers might have overlooked while coming to the decision to migrate. We hope that our study will assist them in re-analyzing their decision to see if this is the right step for our organization or if it requires some further research and evaluation.

Works Cited

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