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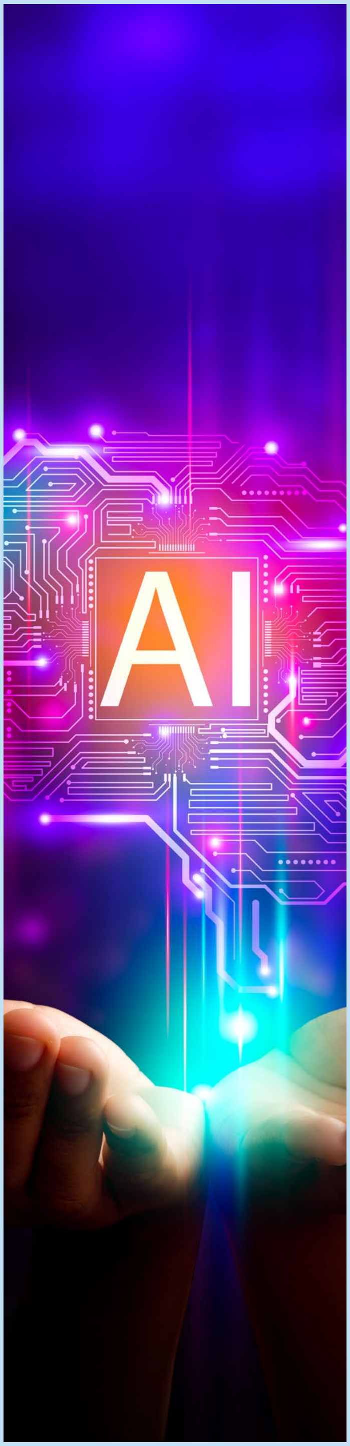

MANAGING BIASNESS OF GENERATIVE AI ON AZURE OPENAI

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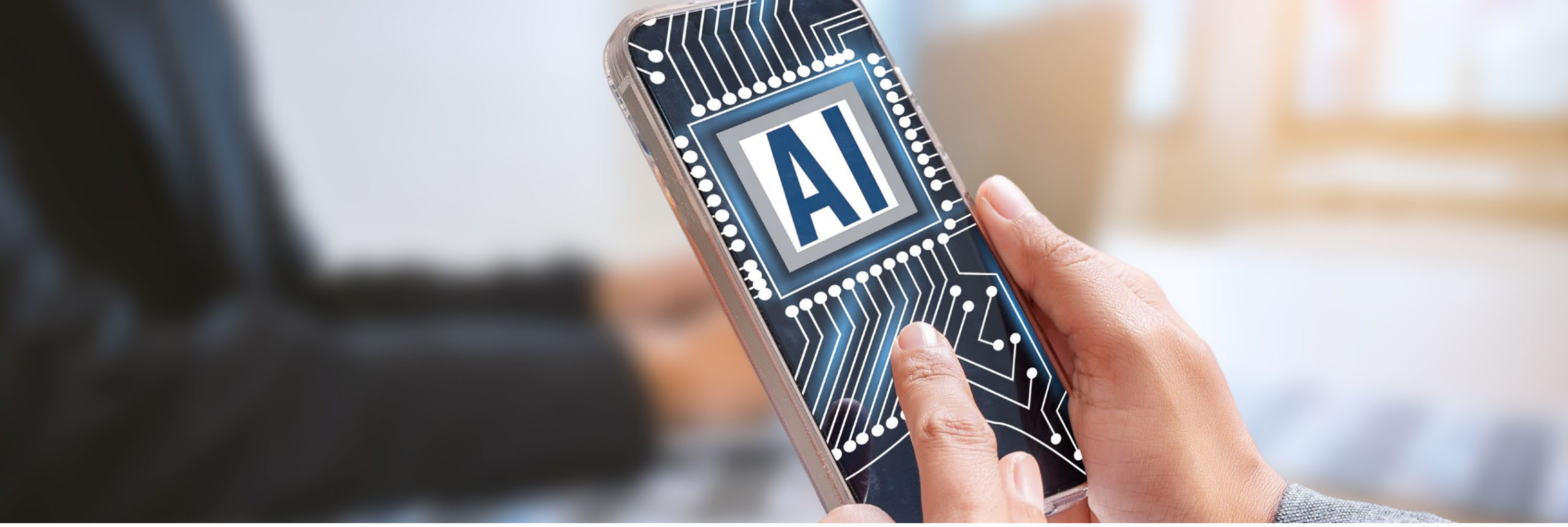


Introduction

1.1 The Rise of Generative AI

Generative AI represents a rapidly emerging branch of artificial intelligence with the potential to reshape human lifestyles, professional environments, and creative processes. The capabilities of Generative AI models extend from crafting realistic literature to generating innovative music, pushing the boundaries of what machines can accomplish.

Despite its remarkable capabilities, this technology has a significant challenge, bias. Like any human-created tool, Generative AI models are susceptible to reflecting and amplifying biases in the training data. It can lead to various adverse consequences, such as reinforcing stereotypes, marginalizing underprivileged groups, and producing harmful content.

Recognizing the critical need to address potential biases in Generative AI, individuals must undertake measures to mitigate these issues. It involves incorporating diverse datasets, utilizing fairness-aware algorithms, and vigilantly monitoring the outputs of Generative AI models.

This article delves deeper into the issue of bias in Generative AI, exploring different types of bias, understanding the potential repercussions of biased AI, and discussing strategies to alleviate bias. Furthermore, it examines how Generative AI can be employed safely and ethically. Researchers, for instance, leverage Generative AI to develop tools for detecting and mitigating bias in language and code. Others are actively working on creating Generative AI models that prioritize equity and inclusivity. While Generative AI holds the potential to be a positive force in the world, it is essential to acknowledge it as a tool that can be wielded for both benevolent and malevolent purposes. Ultimately, individuals are responsible for ensuring the appropriate and ethical use of Generative AI.

1.2 The Significance of Azure Open AI

A doctor adept at diagnosing illness through conversation with patients, a financial advisor displaying an uncanny accuracy in predicting market trends, and a personal shopper intuitively understanding their customers' needs before verbalization – Microsoft Azure OpenAI fuels these glimpses into the future. This groundbreaking service seamlessly integrates OpenAI's language models into Azure, providing the tools necessary for developing AI applications that automate tasks, process vast amounts of data, and engage with customers in a remarkably human-like manner.

Microsoft's Azure OpenAI presents a comprehensive suite of AI solutions applicable across various industries. In the realm of healthcare, the integration of natural language processing and machine learning models enhances diagnostic precision. Finance benefits from automated market trend analysis and fraud detection, while the retail sector harnesses AI for personalized customer experiences. Simultaneously, manufacturing optimizes operations through the application of predictive analytics. The potential applications of Microsoft Azure OpenAI are limitless.

1.3 Purpose of this Article

Seeking to reveal the concealed pitfalls of bias in Generative AI, the article illuminates its potential to result in discrimination and unjust consequences across various domains. The exploration then delves into Azure OpenAI, a proponent of responsible AI development, highlighting its inventive tools and features designed to counteract bias at its foundational level. Ultimately, the piece charts a course toward a future wherein Generative AI serves as an empowering force rather than a discriminatory one, fostering trust and ethical progress in this transformative technology.

Understanding Generative AI

2.1 What is Generative AI

Generative AI, a burgeoning branch of artificial intelligence, directs its attention toward crafting novel content, much like a digital artist or writer. By harnessing advanced algorithms and extensive datasets, it can generate text, images, music, and code, frequently achieving outputs that are challenging to distinguish from those created by humans. This transformative technology holds immense potential across diverse sectors, from personalized medicine to pioneering creative pursuits.

2.2 Application of Generative AI

The applications of Generative AI span a wide range, reflecting the diversity of human imagination. In these instances, exciting examples include:

- **Writing:** Generate captivating stories, poems, scripts, and song lyrics as AI collaborators brainstorm ideas with the writers or compose personalized poems for loved ones.
- **Music:** They can compose original melodies, orchestrate symphonies, and adapt existing music to different styles. One can envision artificial intelligence crafting the soundtrack for an upcoming movie or generating the ideal workout playlist.
- **Marketing and Advertising:** Generate targeted ads and personalized content that resonates with their audience. Imagine AI crafting the perfect email marketing campaign or creating engaging social media posts for them.
- **Data Analysis and Insights:** Imagine an artificial intelligence system adept at generating concise summaries for intricate datasets, effortlessly unveiling concealed patterns and trends. This AI could summarize financial reports precisely or accurately predict customer behavior.
- **Drug Discovery and Development:** Generate new molecules and simulate their properties to accelerate drug discovery. Think of AI identifying promising drug candidates or even simulating clinical trials.
- **Medical Diagnosis and Treatment:** Analyze medical images and data to assist with diagnosis and predict patient outcomes. Imagine AI helping doctors identify early signs of disease or recommending personalized treatment plans.
- **Scientific Research:** Generate hypotheses and design experiments to accelerate scientific discovery. Think of AI brainstorming new research ideas or suggesting promising avenues for exploration.

These applications mentioned above offer a glimpse into the vast potential of Generative AI. Its applications constantly evolve, extending into nearly every corner of people's lives. Observers should be vigilant, as the future driven by Generative AI promises to be unique.

2.3 Potential Risks

Despite its vast promise, individuals should be aware of various risks associated with Generative AI. The exploration delves into some of the potential pitfalls:

- **Job Displacement and Automation:** As Generative AI automates tasks and creates content; it can potentially displace specific jobs. While new jobs might emerge, unemployment and economic disruption are risks. Ethical approaches to automation and reskilling initiatives should be considered to ensure a smooth transition.

- **Lack of Explaining Ability and Control:** The inner workings of specific Generative AI models often exhibit complexity and opacity, creating challenges in comprehending the processes leading to their outputs. The absence of transparency may give rise to concerns regarding accountability and control. Therefore, implementing Explainable AI techniques and including human oversight are crucial in addressing these issues.
- **Biased Outputs:** Generative AI models, akin to conventional counterparts, assimilate biases ingrained in their training data. The consequential risk becomes pronounced, particularly in direct interactions with customers. An illustrative example is a query directed to Stable Diffusion, seeking images of "corporate CEOs," which could result in the exclusive generation of pictures depicting white men. This perpetuation of harmful stereotypes carries the potential for discriminatory outcomes. Although traditional ML models share this inherent risk, the amplified impact due to the generative nature of contemporary AI models necessitates heightened vigilance and mitigation strategies to ensure responsible and equitable customer interactions.
- **Misinformation and disinformation:** With its capacity to generate persuasive content, Generative AI possesses the potential for misuse in disseminating misinformation. One can envision AI bots producing fabricated news articles or creating deepfakes to mimic genuine individuals. Such actions can erode trust in information, manipulate public opinions, and harm individuals and society. Establishing robust fact-checking and authentication mechanisms becomes imperative to counteract these risks.

These are merely some of the potential risks linked to Generative AI. Recognizing these risks and formulating responsible safeguards to alleviate them is imperative. By adopting a balanced approach, one can leverage the capabilities of Generative AI while concurrently reducing its potential adverse effects and ensuring ethical progression and utilization.

Bias & Fairness Issues Associated with Generative AI

3.1 Bias and Fairness Issues

In AI, bias indicates a deviation from accuracy within a model, frequently reflecting societal stereotypes or prejudices. Such biases typically permeate AI models due to compromised data sources or skewed training processes. Acknowledging and addressing the potential for bias is imperative for responsible AI development. It is essential to guarantee that these powerful technologies do not replicate and magnify existing inequalities but contribute to fostering a more equitable and inclusive future.

- **Amplification of Existing Bias:** When fed with data, generative models reflect the inherent biases within that data. If a generative model is trained on a dataset with biases, it inadvertently perpetuates them. The unintentional reinforcement or exaggeration of social biases by AI can result in public outrage, legal consequences, and harm to a brand's reputation. Using facial recognition software as an illustration, biased training can lead to misidentifications, sparking potential legal conflicts and PR crises. To mitigate these risks, prioritizing diversity in the training dataset is crucial, accompanied by regular audits to detect and rectify unintended biases. Organizations such as OpenAI highlight the need for vigilance by emphasizing the significance of diverse training data. Collaborating with such organizations enables companies to ensure their generative models undergo thorough bias checks and external audits.
- **Training Data Bias:** Fairness in AI starts with critically examining the training data. Bias may be present in groups that are either overrepresented or underrepresented, as well as in inconsistent labeling practices. For example, limited data used to train facial recognition systems may result in the misidentification of individuals with darker skin tones. Similarly, security algorithms developed from biased data could contribute to unjust profiling. Conducting thorough data analysis and implementing fair labeling techniques is essential to avoid these challenges. Only through these measures can AI be constructed to represent the diverse world it aims to serve accurately.
- **Algorithmic Biases:** Biased training data can give rise to problematic algorithms, making them susceptible to enduring errors and unfair outcomes, potentially amplifying the underlying bias. The risk is exacerbated by programmatic errors, where developer biases—whether conscious or unconscious—can become embedded in the decision-making process. Unintentional discrimination may surface when elements such as income or vocabulary, which could be correlated with race or gender, are unjustly emphasized by the algorithm. Therefore, meticulous data curation and unbiased programming are essential for responsible AI development.
- **Cognitive Biases:** Human biases, inherent to their experiences and

preferences, can unintentionally infiltrate AI systems. It happens through the selection and weighting of training data. For instance, a preference for data gathered from specific groups could lead to biased outputs, as highlighted by NIST. NIST emphasizes the prevalence of this issue in its report, stating that "human and systemic societal factors are significant sources of AI bias." To mitigate this, individuals need to broaden their perspective beyond the technical aspects of AI development and consider the broader societal context that shapes and impacts this technology.

Acknowledging and addressing these challenges ensures that Generative AI is developed and used responsibly and equitably.

3.2 Fairness Assessment

Assessing the fairness of Generative AI becomes crucial to ensure it avoids bias or discrimination in its outputs. The following presents a framework for evaluating fairness in Generative AI:

- **Diversity, Non-Discriminative, and Fairness:** The growth of Generative AI has sparked concerns regarding the quality and diversity of its training data. Frequently characterized by bias or incompleteness, this data possesses the potential to guide AI models toward generating offensive or discriminatory outputs, perpetuating harmful stereotypes, and inadequately representing specific groups. To tackle this concern, meticulous design becomes pivotal, necessitating diverse and representative data sources. Continuous evaluation and responsible selection of training data emerge as essential measures. Moreover, it is imperative to acknowledge Generative AI's susceptibility to misuse by malicious actors for the creation of discriminatory or violent content, propaganda, and even fake pornography. Consequently, upholding diversity, non-discrimination, and fairness in Generative AI applications is an ethical imperative and a crucial stride toward constructing inclusive and equitable AI systems.

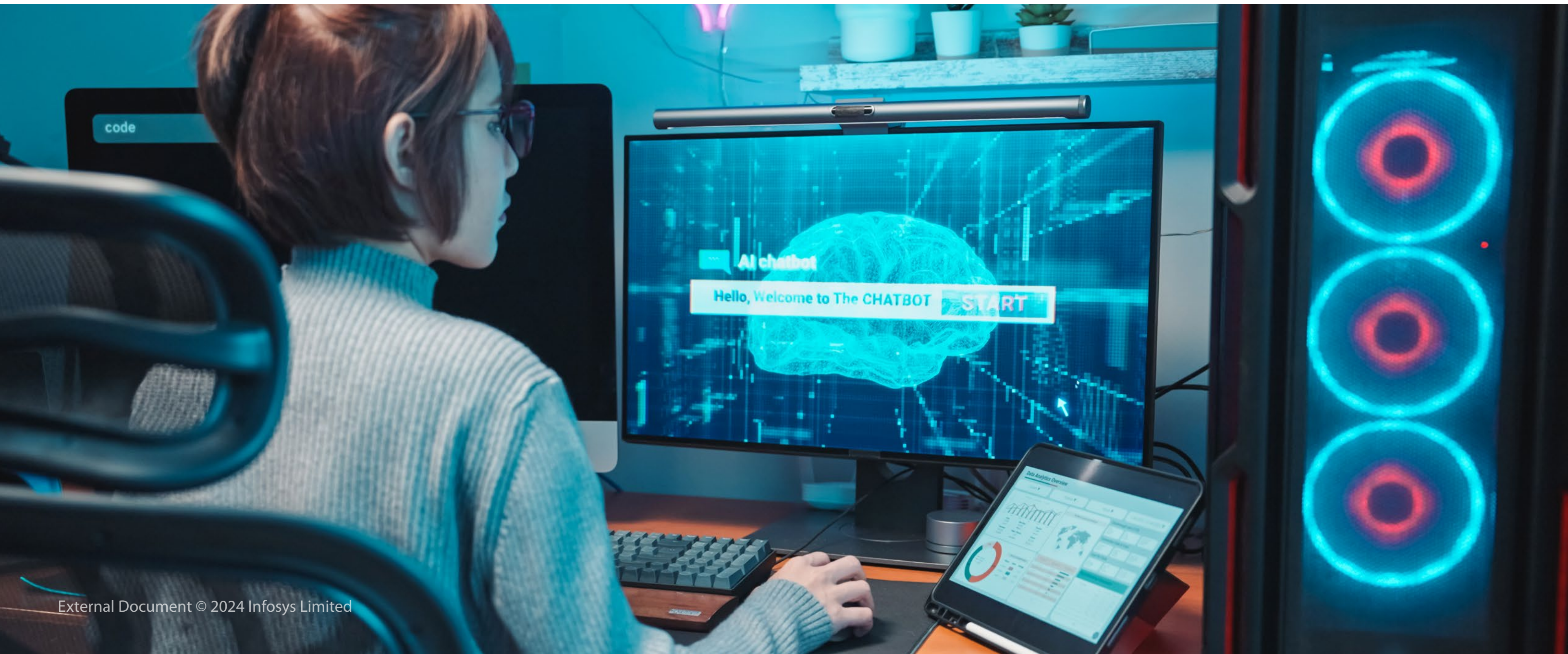
- **Algorithmic Fairness:** Evaluating algorithmic fairness requires scrutinizing the processes or mechanisms that generate outcomes or impact of AI systems on various demographic groups. The assessment involves examining an AI system's inputs, features, models, or decisions to identify and address potential biases or prejudices. Common approaches to assess fairness include conscientious data collection, thoughtful feature selection, and meticulous model training. For example, when collecting data for a facial recognition AI system, one must ensure that the data is representative, diverse, and inclusive of the target population and relevant attributes. Similarly, selecting features for an AI system predicting job performance should be pertinent, informative, and unbiased for the task and applicable demographic groups. Moreover, when training models for an AI system classifying text, emphasis should be placed on ensuring their robustness, transparency, and accountability for predictions and errors.

By adhering to the outlined framework and considering the context of Generative AI applications, individuals can strive to develop and deploy AI models that are fair and responsible, ultimately benefiting a wide range of stakeholders.

3.3 Monitoring and Improvement

It is a comprehensive response on how to monitor bias in Generative AI,

- **Establish a Monitoring Framework:** The individual should clearly articulate the fairness principles they aim to uphold, considering the context of the model's utilization and the potential societal impacts it may have. They ought to enumerate potential biases rooted in race, gender, socioeconomic



status, and other domain-specific sensitive attributes. The selection of suitable fairness metrics aligned with the goals, such as demographic parity, equalized odds, or counterfactual fairness, should be made. Additionally, the person must establish acceptable bias levels for each metric, considering regulatory requirements and ethical implications.

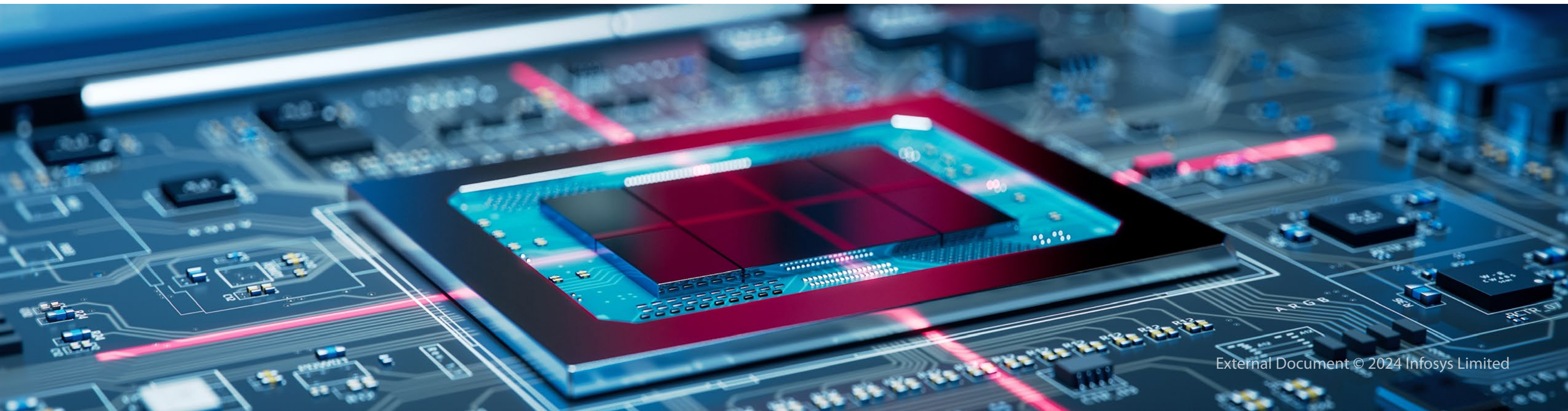
- **Monitor During Development:** Inspecting data for imbalances and biases involves statistical analysis, visualization, and bias detection tools. Considering fairness-aware algorithms and methods, one should review the code and model architecture for potential biases. Fairness metrics should be regularly assessed on development datasets, and adjustments to model design or training procedures should be made as necessary.
- **Continuously Monitor in Production:** Collecting and analyzing model outputs in real-world settings is essential to identifying any emergent biases or fairness issues. The individual or team should establish mechanisms to gather feedback from users and stakeholders, enabling prompt identification of potential biases. Periodic fairness audits should be scheduled to assess the model's performance and identify areas for improvement.
- **Employ Diverse Monitoring Techniques:** One should measure bias across various groups using statistical tests and metrics. Feedback from diverse users can be collected to identify potential biases and assess their impact. Engaging domain experts and bias researchers becomes essential to evaluate model outputs for fairness concerns. Incorporating explainable AI techniques is crucial for comprehending model decision-making processes and uncovering potential biases.
- **Address Biases When Detected:** Mitigate biases in the training data by employing data augmentation, resampling, or bias removal techniques. Investigate fairness-aware algorithms, regularization methods, or adversarial training to diminish model bias. Implement post-processing techniques to filter or adjust potentially biased outputs. Integrate mechanisms for human review and intervention to ensure fairness in critical decisions.
- **Prioritize Transparency and Accountability:** Maintain clear documentation of bias mitigation strategies and their effectiveness. Transparently communicate fairness monitoring results and actions taken to address biases. Develop robust governance structures to oversee fairness monitoring and ensure accountability.

By implementing monitoring practices, individuals can proactively identify and address biases in Generative AI, fostering responsible and ethical development of AI.

3.4 Leveraging Azure OpenAI to Eliminate Biases

Azure OpenAI, a collaboration between Microsoft Azure and OpenAI, brings together powerful tools and resources to mitigate bias in Generative AI models. Here is how it helps:

- **Data Acquisition and Preprocessing:** In Azure Machine Learning, Azure OpenAI leverages Fairlearn's algorithms and dashboards to visualize and address biases in training data. The platform filters out discriminatory examples and augments underrepresented groups within the data using Azure OpenAI's capabilities.
- **Algorithmic Fairness and Transparency:** Counterfactual fairness and adversarial debiasing can adjust the model's training process and minimize bias. Azure OpenAI seamlessly integrates with tools like InterpretML and SHAP, offering insights into the model's decision-making process, facilitating bias detection, and enabling mitigation. The design elements incorporated into Azure OpenAI can steer the model's behavior, reducing unintended output biases.
- **Monitoring and Evaluation:** The individual should monitor model performance and detect potential bias drifts using Azure Monitor for AI's fairness tools. They ought to implement human review mechanisms to identify and address biased outputs before these outputs reach users.



Case Studies

4.1 Real-world Examples of Risks and Solutions

While Artificial Intelligence (AI) holds immense promise for healthcare improvement, from aiding in medical imaging and diagnosis to providing recommendations for prognosis and treatment, its application raises grave ethical concerns, particularly concerning bias and data security. The utilization of AI in healthcare introduces the possibility of algorithmic bias that may result in unfair outcomes. A comprehensive understanding of these issues is essential. The analysis delves into a specific case to illustrate the potential pitfalls:

Case Study: U.S. healthcare providers increasingly rely on AI algorithms to aid in critical decision-making, such as identifying patients requiring additional care or medical privileges. However, concerns regarding potential racial bias in these algorithms have been raised by a study conducted by researchers at UC Berkeley, led by Obermeyer et al. The study discovered that, despite variations in health severity between Black and white patients, the algorithm assigned similar risk scores to both groups. Consequently, a disproportionately lower percentage of Black patients (more than half) were flagged for additional care compared to their white counterparts with similar healthcare needs.

The study attributes this bias to the algorithm's dependence on healthcare costs as a proxy for health requirements. The algorithm incorrectly concludes that Black patients are healthier than white patients with the same ailment, as less money is typically spent on their care. It underscores the importance of incorporating comprehensive health data and considering social factors that may impact healthcare utilization when developing AI algorithms for healthcare applications.

Apart from that, there is one more case study which needs to be highlighted:

Case Study: Concerns have been raised regarding potential gender bias in the Apple Card AI system, particularly concerning disparities in credit limits and interest rates between genders. The tech entrepreneur David Heinemeier Hansson reported that his wife received a lower credit limit than he did despite having a more favorable credit score.

These instances raise questions about the transparency and fairness of the Apple Card AI system, especially considering the challenges associated with analyzing "black box" AI models.

4.2 Lessons Learned

Case studies emphasize the critical necessity for fairness in AI systems. Unchecked bias can potentially worsen social inequalities, prompting the implementation of proactive measures such as regulations and responsible development practices. Explainable AI emerges as a pivotal component of ethical AI, advocating for transparency in the decision-making processes of systems. In contrast to "black boxes" characterized by opaque understanding, Explainable AI enables the translation of complex models into interpretable formats. This capability provides valuable insight into data and algorithms, empowering organizations to identify ethical issues, foster trust, and make well-informed decisions regarding AI adoption. The absence of this understanding conceals AI's potential risks and unintended consequences, impeding responsible deployment and progress.

Future Trends and Considerations

5.1 The Evolution of Generative AI

Tools such as ChatGPT and stable diffusion have sparked discussions about the future of AI. These technologies have already left a notable impact, with instances like Octopus Energy employing AI for 44% of customer service emails and Freshworks reducing task completion times from weeks to days. The potential for AI's evolution is significant, and observers anticipate a more rapid pace of development in Generative AI expected to accelerate in the near future. It likely results in expanded capabilities, enabling AI to assist in diverse tasks, some of which may be as groundbreaking as recent advancements in AI.

Beyond ChatGPT: Text-based Generative AI demonstrates remarkable capabilities in research, first drafts, and planning. Although it offers entertainment value for storytelling or poetry, its creativity does not quite match the levels of individuals like Stephen King or Shakespeare, particularly when generating genuinely original ideas. The forthcoming generation of language models, surpassing GPT-4, strives to explore the intricacies of psychology and the human creative process, enhancing the production of captivating written content. These models leverage advancements in tools such as AutoGPT, enabling Generative AI to generate prompts and handle intricate tasks autonomously with increased proficiency.

Generative Visual AI: The present state of Generative AI demonstrates proficiency in crafting images and videos based on textual prompts yet encounters constraints in processing. As technological progress continues, distinguishing between AI-generated content and reality may pose challenges, giving rise to concerns regarding the proliferation of deepfakes and misinformation.

Generative AI in the Metaverse: As digital interactions evolve towards immersive 3D experiences in virtual and augmented reality, there is a recognition that Generative AI has the potential to streamline the design of these environments. Meta (formerly known as Facebook) envisions the integration of Generative AI into its 3D worlds platform. Moreover, Generative AI can elevate the realism of avatars, facilitating more dynamic interactions among users.

Generative AI Video Games: Generative AI holds the potential to revolutionize video game design, assisting in the development of immersive environments, landscapes, and architecture. Designers can concentrate on storytelling and gameplay mechanics, as Generative AI facilitates the creation of dynamic content, such as lifelike non-player characters. It contributes to more immersive and less scripted gaming experiences. As designers integrate Generative AI, the industry anticipates games responding dynamically to player interactions, ushering in a new era of highly immersive and realistic gaming.

These examples illustrate the exciting potential of Generative AI. As technology evolves and becomes more accessible, one can anticipate the emergence of even more transformative use cases, shaping the future in ways that are beyond current imagination.

5.2 Anticipating Future Risks

Generative AI, despite its exciting potential, also harbors significant risks that need to be considered for responsible development and deployment. The following outlines some of the vital future risks associated with Generative AI, along with examples that raise concerns:

- **Amplifying Existing Biases:** Generative AI models acquire knowledge from the data on which they undergo training. If this data contains biases, the AI inadvertently sustains and magnifies them. Consider an AI composing news articles using a training dataset primarily comprising content with language typically employed to demean or objectify women. The resultant articles may inadvertently fortify detrimental stereotypes related to women, contributing to the deepening of societal inequalities.
- **Deepfakes and Misinformation:** Generative AI can produce highly convincing deepfakes in videos and audio recordings. Potential malevolent entities might exploit this technology to disseminate false information, harm individuals' reputations, or influence public sentiment. For example, a deepfake video featuring a politician uttering provocative remarks could instigate discord and erode trust in democratic procedures.
- **Exacerbating Social Divides:** Generative AI's potential to intensify social divisions is evident in its capacity to construct echo chambers and filter bubbles. Consider a scenario where a social media platform utilizes AI algorithms to suggest content following a user's previous activities. This approach may expose users solely to information that aligns with their current beliefs, thereby increasing the challenge of encountering a variety of perspectives.
- **Algorithmic Bias in Decision-Making:** The use of AI in decision-making processes, ranging from loan approvals to criminal justice, has steadily increased. When biased algorithms come into play, they have the potential to result in unfair and discriminatory consequences. For instance, a hiring tool powered by AI and trained on biased data may consistently favor applicants from specific demographic groups, thereby sustaining discrimination within the workplace.

5.3 Preparing for Ethical and Regulatory Changes

Preparing for the evolving landscape of regulations and ethical considerations surrounding bias in Generative AI requires organizations to undertake proactive and multifaceted efforts. Here are some critical steps that an organization can take:

- **Conduct a Bias Audit:** Analyze the organization's AI systems, algorithms, and data sources for potential biases using fairness testing and counterfactual analysis tools.
- **Implement Debiasing Techniques:** Explore and apply data augmentation, counterfactual fairness, and adversarial training to mitigate bias in their AI models.
- **Establish Ethical AI Principles:** Developing and implementing guiding principles for responsible AI development and deployment is essential, with a focus on emphasizing fairness, transparency, and accountability.
- **Foster a Culture of Awareness:** Train the employees on AI ethics and bias, raising their awareness about the potential risks and encouraging them to engage with AI systems responsibly.
- **Stay informed About Regulations:** Organizations should monitor emerging regulations and ethical frameworks concerning AI bias, ensuring alignment of their practices with evolving standards.
- **Participate in Industry Discussions:** Collaborate with industry players, policymakers, and researchers to inform and shape responsible AI development.

- **Invest in Bias Detection and Mitigation Tools:** Organizations should explore and adopt emerging technologies and tools that can assist them in detecting and addressing bias within their AI systems.
- **Build Explainable AI Models:** Developing AI models involves creating systems that provide clarity and transparency in their decision-making processes, facilitating improved comprehension and the reduction of potential biases.

Responsible AI development entails a continuous commitment to fairness, transparency, and accountability. Organizations that persistently learn, enhance, and collaborate can leverage the potential of AI for positive impact while minimizing associated risks and promoting equitable outcomes for all stakeholders.

Conclusion

6.1 The Role of Azure OpenAI in Risk Management

While Azure OpenAI provides powerful tools for text generation, image creation and other creative tasks, it is also responsible for addressing potential bias in its outputs. It is how it plays a role in risk management:

- **Transparency and Control:** Azure OpenAI offers transparency features such as model cards and API documentation, enabling users to comprehend the training data and potential biases associated with specific models. Furthermore, users can choose models according to their requirements and the desired bias mitigation level.
- **Bias Detection and Mitigation Tools:** Azure OpenAI provides access to tools such as Fairlearn, a library designed for constructing fair machine learning models, and Fairness Scorecard, a tool used to assess the fairness of pre-existing models. These resources assist developers in recognizing and mitigating bias in their AI applications.
- **Research and Development:** Microsoft, as the parent company of Azure OpenAI, engages in active investment in research and development, explicitly targeting the mitigation of bias in AI. The company's efforts encompass the exploration of debiasing techniques, the advancement of explainable AI, and the development of fairness-aware algorithms.

By utilizing Azure OpenAI's tools and resources and actively participating in responsible AI development, developers and users can contribute to the ethical advancement of Generative AI. This involvement helps mitigate bias and promote a fairer and more inclusive future.

6.2 Final Thoughts on Responsible Generative AI Use

Responsible Generative AI involves a nuanced dance between innovation and ethics. It represents a potent tool capable of shaping reality, yet it necessitates careful handling to prevent the amplification of existing biases or the blurring of lines between truth and fiction. The approach demands intentionality in selecting diverse data to counteract discriminatory outputs, with transparency serving as the brushstroke to unveil the rationale behind each creation, fostering trust and supporting informed decisions. Guided by a respect for the human canvas, this approach ensures that AI enhances creativity rather than replacing it, allowing individuals to thrive rather than become isolated. The intricate dance calls for collaborative efforts, bringing together academics, industry leaders, developers, policy makers and the public under a shared vision. Only through such unity can we envision a future where AI is not just a technological marvel but a force for good, enriching lives, and contributing to creating a more equitable world, one ethical pixel at a time.

References

- Introduction to Microsoft's Azure OpenAI Service (proserveit.com)
- AI Bias and Fairness: Challenges, Implications, and the Road Ahead (zscaler.com)
- Shedding light on AI bias with real world examples - IBM Blog
- How to Measure Algorithmic Fairness in AI (zscaler.com)
- https://learn.microsoft.com/en-us/azure/machine-learning/concept-responsible-ai?view=azureml-api-2
- The Future of Generative AI Beyond ChatGPT (forbes.com)
- Risk and the future of AI: Algorithmic bias, data colonialism, and marginalization - ScienceDirect

Authors

Chandan Malu

Principal Technology Architect

Ritu Kumari Singh

Senior Associate Consultant

For more information, contact askus@infosys.com

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