Faking it: Artificial Intelligence in a Human World

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In Faking It: Artificial Intelligence In a Human World, Toby Walsh, a leading Professor of Artificial Intelligence a thought-provoking (AI), provides accessible exploration of the rapid advancements in AI and their profound implications on humanity. The book begins by dispelling common misconceptions about AI, clarifying that current systems are not sentient enough and do not have a genuine understanding or consciousness like humans do. However. Walsh masterfully illustrates how AI is already surpassing human capabilities in many domains, from playing complex games to diagnosing diseases. He begins his book in the preface with the first line stating that this book is out of date, as the speed, skill and scale of AI is so rapid and dynamic that by the time one finishes reading the book, a new development would have taken place in the world of AI and computing.

The book's title is an ominous reference to the danger posed by AI that becomes capable enough to imitate human intelligence to the level of perfection. This becomes problematic, especially when corporations start to build systems and mechanisms designed deceive human intelligence by surrounding with deepfakes, us computer-generated audio and videos that are identical to the real thing. In the field of Education and Learning, Al poses a new and advanced challenge. With the breakout of ChatGPT, Sora (textvideo generation) and its subsequent alternatives, AI has become even more ubiquitous than before. Adept at writing school or college assignments, research articles, editorials or even food recipes, the limit to the Generative Pre-trained Transformer (GPT) is only the prompts that are given. Beyond that, there is no control over the veracity of the content, originality of the write-up or even the authenticity of its sources. In a world where fake news and unverified claims spread faster than a forest wildfire, having a language learning model taking over human actions has far-reaching and substantial consequences.

One of the book's key strengths the way Walsh contextualizes the development of AI within the broader sweep of human history and technological innovation. He draws insightful parallels between the current Al revolution and past technological disruptions, helping readers appreciate both the transformative potential and the existential risks posed by intelligent machines. A particular highlight is the author's nuanced discussion of the ethical challenges surrounding Al. He delves into the issues of algorithmic bias, privacy, algorithmic decisionmaking, and the displacement of human labour. Walsh does not shy away from hard questions, making a compelling case for the urgent need to ensure Al systems are designed and deployed with robust safeguards and a strong moral framework.

With the advent of thinking computers dating back to research conducted by Alan Turing, a British mathematician, titled Computing Machinery and

Intelligence to the coining of the term Al six years later by John McCarthy, an American computer scientist, we have come a long way for machines to guide our thoughts. This has led to algorithms being designed in a way that understands our tastes and preferences in films, music, and social media, churning out suggestions that keep us hooked online. However, Walsh attempts to inform us through his work that Al can actually never become as intelligent or creative as humanly possible.

It thus becomes pertinent to ask, for the purposes of the discussion in this book, can Al be creative? The answer lies in the title of the book. Walsh argues that Al can only assist as much as it is being assisted. Its learning is limited to the scope of its data. Al can be creative, but only for 'Faking Creativity'. Walsh makes a compelling case in "Faking It" that while Al systems have become remarkably adept at producing human-like creative outputs, true creativity remains elusive.

The key lies in understanding the fundamental differences between artificial and human creativity. For example, AI language models like GPT-3 can generate remarkably coherent and even poetic text when prompted with the right inputs. They can compose short stories, poems, and even song lyrics that may initially seem creative. However, this "creativity" is ultimately a reflection of the training data the Al was exposed to, not an innate spark of original thought. Similarly, AI art generators like DALL-E can produce unique and visually striking images based on textual prompts. But these images are essentially collages of visual elements the AI has encountered before, recombined in novel ways rather than manifesting truly original ideas.

The title "Faking It" is apt because while these Al-generated outputs may appear creative on the surface, they lack the deeper human qualities of creativity. A human artist or writer draws from their lived experiences, emotions, and unique perspectives to craft something that is genuinely novel. In contrast, AI creativity is ultimately bounded by its training, unable to transcend the limitations of its data. The machine learning models powering creative AI are powerful tools, but they do not possess the same spark of imagination, intuition, and personal expression that distinguishes human creativity. The AI is, in a sense, "faking" creativity by replicating patterns it has learned rather than generating truly original ideas. This distinction is crucial for understanding the capabilities and limitations of AI, especially as these technologies become more advanced and integrated into our lives.

One potential criticism of Toby Walsh's "Faking It" is that the book, at times, oversimplifies the complexities and nuances of artificial intelligence. While the author does an admirable job of making technical concepts accessible to a general audience, there is a risk of painting AI capabilities and limitations with too broad a brush. For example, Walsh's assertion that current systems are not sentient and do not have genuine understanding or consciousness as humans do is a widely accepted view, but the guestion of machine consciousness remains an active area of philosophical and scientific debate. The nature of consciousness and whether it can truly emerge in artificial systems is still not fully understood. Similarly, Walsh's characterization of AI creativity as mere "faking" may overlook the potential for Al systems to generate outputs that, while not truly original in a human sense, still demonstrate novel combinations and emergent properties that push the boundaries of what we consider creative. As Al techniques become more sophisticated, the line between artificial and human creativity may continue to blur.

That said, these criticisms do not detract the reader from the overall quality and importance of Walsh's work. Faking It remains a highly informative and accessible introduction to the current state of AI, its capabilities, and the critical challenges it presents. In conclusion, Faking It is a masterful exploration of the past, present, and future of artificial intelligence. Toby Walsh's insights and

warnings serve as a vital roadmap for navigating the transformative, and at times unsettling, implications of Al. This book is an essential read for anyone seeking to understand the technology that is rapidly reshaping our world. While Al can enhance and augment human creativity, it cannot replace the depth and uniqueness of the human creative experience - at least not yet.