Intellect's Relationship to AI?

By Mark Lewis, Intellect's Managing Director

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Some of our authors and editors and most of our readers will probably be unaware that Intellect had its roots in artificial intelligence (AI). We have long since ceased focusing on the subject and for the majority of our 40 years we have built the company and our reputation publishing in the arts and humanities. However, AI is very much back in the news, largely thanks to the launch and dramatic impact of AI generative tools such as ChatGPT and DALL-E. But AI is much more than these tools and has never gone away, it has just been under the radar. For many years now, it has been successfully integrated into consumer products, robotics, voice and visual recognition systems, and in many financial and service industries. AI now promises to transform every aspect of our lives, from how we work, how we play and how our economies operate. It not only promises to save the world but also threatens to destroy it. So quite a lot at stake then!

While there is probably little Intellect can do to save the world from an AI Armageddon, we thought for our 40th anniversary now might be a good time to reflect on Intellect's historical relationship with AI, how it continues to have an influence on what we publish today, and to consider how the technology is impacting the academic publishing world more generally.

Intellect was founded in 1984 by Masoud Yazdani and published its first journal. Artificial Intelligence Review. in 1986. At the time. Masoud was a vouna lecturer in computer science at the University of Exeter. Masoud and I first met around the same time, when I was working for a small innovative business in Oxford that specialized in expert systems and logic programming, fields of Al. Masoud joined us in Oxford on sabbatical where we became areat friends. Masoud created the iournal because at that time there was nowhere for researchers and practitioners to publish their work, and

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because Masoud had a life-long passion for publishing going back to his school days in Iran.

This was a particularly exciting time to be involved in AI as vast sums of public and private money were being injected into research and development, partly in response to the Japanese government's aggressively funded AI fifth-generation computer project, which aimed to steal a lead on the development of 'supercomputers' and thereby help it dominate the world economy, and the US President Ronald Reagan's Star Wars Project - or Strategic Defence Initiative (SDI), to give its official name. The proposal to build and put into space a defence system to destroy incoming Soviet intercontinental ballistic missiles (ICBMs) may have sounded reasonable in principle to many in this Cold War era, but the idea of handing over control of the system to AI technology certainly did not, and caused a huge rift in the AI research community and elsewhere. But it is fair to say that countering this threat was not the driving force behind most of the researchers and technicians developing the technology in the West. Rather it was the intellectual and technical challenges of AI that were being grappled with. Expert system

Artificial Intelligence Review cover (1986) technology in particular required a fascinating multidisciplinary approach including computer science, maths, philosophy, cognitive science and linguistics as researchers worked to understand and define human intelligence, and how human knowledge and expertise could be captured and represented in computer systems to enhance, replicate or replace human decision-making in a wide range of situations.

Throughout the 1980s and into the 1990s, Intellect published numerous books on AI, some in co-publishing deals with the US publisher, Ablex. A number of early titles were already reflecting the cross-disciplinary nature of AI such as Artificial Intelligence: Applications for Business (Reitman 1984), Image Understanding (Richards and Ullman 1984), Artificial Intelligence and Education (Lawler and Yazdani 1987), Creative Intelligences (Gregory 1987) and Intelligent Tutoring Systems (Gauthier and Frasson 1990).

> Much of the research funding for AI dried up in the 1990s and 2000s. This coincided with Masoud taking up a post at the University of the West of England (UWE) where he eventually was made a full professor. At UWE he started work in digital media but over time became more focused on research and practice in the visual and performing arts, and the publishing output of Intellect naturally followed suit. The rest, as they say, is history. But it is not hard to find the influence of science and technology on our publications in the arts and humanities. More obvious are the journals Virtual Creativity, Technoetic Arts, Animation Practice, Process & Production and Journal of Gamina & Virtual Worlds to name but a few. and many of our other journals and books will include content that bridges the divide between art, science and technology. It is no coincidence that we choose to publish in these areas; rather, it directly stems from the significant impact that AI and other technologies have exerted on Intellect's publishing culture.





Al is also playing an increasingly pivotal role in reshaping the way published content is created, disseminated and consumed. Let us look at some of these.

One of the most noticeable impacts of AI on publishing is the automation of content creation. AI algorithms can generate content that mimics human creativity and expression. This has led to the development of AI-generated art, poetry and academic output and literature, blurring the lines between human and machine creativity. I leave it to you, the reader, to judge the quality of these outputs. However, the ethical implications of authorship and the authenticity of AI-generated content raise extremely important questions within the domain of the arts and humanities.

Al tools have also revolutionized the research and analysis processes. Machine learning algorithms can quickly analyse vast datasets, identify patterns and draw connections that might otherwise elude human researchers. This capability has accelerated the pace of academic research, allowing scholars to delve deeper into their fields of study and uncover new insights.

The integration of AI in search technology has facilitated a more personalized content delivery experience. AI algorithms analyse user preferences, behaviours and interactions to tailor content recommendations. This personalization can contribute to a deeper engagement, ensuring that readers discover content that aligns well with their interests and expands their knowledge.

Al technologies have played a crucial role in the preservation and accessibility of cultural heritage within the arts and humanities. Digitization efforts, powered by Al, have enabled the preservation of rare manuscripts, artworks and historical documents. Furthermore, Al can aid in the cataloguing and organization of vast cultural repositories, making them more accessible to researchers and the general public.

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The adoption of AI in academic publishing is only set to grow, making ethical considerations paramount. Questions of bias in Al algorithms, concerns about authorship, intellectual property and copyright, and the potential diminution of traditional creative activities demand careful consideration. Striking a balance between technological innovation and preserving the essence of human expression is essential as we navigate the changing world of Al-enhanced publishing.

To conclude, the relationship between publishing and Al is dynamic and complex. While Al promises unprecedented opportunities for efficiency, creativity and accessibility, it also poses huge challenges that require careful navigation. As Al becomes ever more sophisticated and powerful, stakeholders in the arts and humanities must actively engage in ethical discussions and collaborate to shape a future where technology enhances, rather than diminishes, the richness of human expression and cultural understanding.

On a contrasting note, the looming spectre of AI potentially bringing about our collective demise might render all of this irrelevant! •

Navigating Circumstance from the Suba An American Indian Perspecti

Tara Falce, postgraduate student at The Amer

'You will definitely get into that university because you are Navajo', 'Must be nice you do not have to work as hard to get into a university', 'You have it easy because you are Navajo', 'I heard you receive money from Indian casinos, must be nice to have that', 'The government is giving you handouts', was and is the constant replies I receive as a Navajo American Indian navigating her way through academia. However, the reality of my journey is an echo of what other American Indians and Indiaenous vouth must endure when striving to create a seat within academia. I grew up in Southern Orange County, California, miles away from the reservation in New Mexico; essentially, I am an Indigenous outsider. My mother, on the other hand, was raised on the reservation, where she endured much. What was not lost between my mother and I is that I am and will always be a proud Diné, or Navajo. My mother's and father's sacrifices were to provide me with the best opportunity that public school education in the state of California could offer, which is the