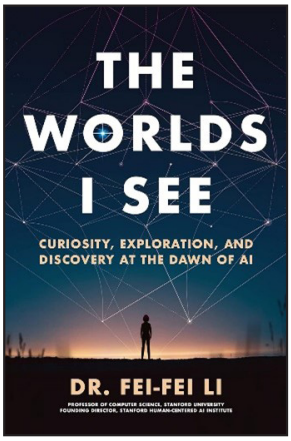
The Worlds I See: Curiosity, Exploration, and Discovery at the Dawn of AI, Fei-Fei Li, Flatiron Books, 2023. 324p. Hardcover, $24.99. 9781250897930



When we consider artificial intelligence, we may think about the recent generative artificial intelligence tools making the news, such as OpenAI's ChatGPT, Google's Bard, or Microsoft's Bing. However, AI has been a scientific discipline since the 1950s; AI was originally trained to perform very specific tasks and generally did such assignments very well (e.g. playing chess). Academic libraries such as Stanford University Libraries have also been discussing the role of artificial intelligence and its applications in higher educations, business, and society. AI is now being incorporated into the mainstream due to recent developments in these generative tools that are becoming readily available. Dr. Fei-Fei Li, Professor of Computer Science and Founding Director of Stanford Institute for Human-Centered AI at Stanford University, writes in her memoir, *The Worlds I See*, about her curiosity, affinity, and engagement with artificial intelligence. The author explains how she came to understand the promises and perils of AI through her encounters, projects, and collaborations over two decades.

Li begins her memoir describing her upbringing in China and New Jersey. She shared with readers her high school experiences, her academic journey from Princeton University, Cal Tech, and Stanford University, as well as how she became interested in artificial intelligence. Writing about the potential impact of artificial intelligence in society, Li found similarity in her relationship with her family and her relationship with artificial intelligence—each having an evolving nature over time. In sharing her perspective on modern artificial intelligence and predicting its implications for humans, Li writes, "we see the world holistically, not just identifying but understanding its contents—their relationships, their meanings, their pasts, and their futures. The gist. We aren't merely witnesses but storytellers. It felt like it was time for algorithms to learn how to do the same" (p. 229).

Li suggests that AI is not the work of an individual but of a collective—a collaborative effort. The author writes about her own experiences with researchers and students involved in her labs, and incorporates a history of the development of AI, discussing how substantive progress requires institutional collaborations between higher education and tech industries across the globe. Li emphasizes that no single expert can work on AI technologies without consulting other professionals in the field. Yet geopolitics—such as the present condition between China and the United States—can disrupt global cooperative partnerships, creating isolation, borders, and competitions regarding AI technologies—a point that Li fails to address in the book. Because of this lack of coverage, the reader is left wondering how the author perceives current geopolitics and its implications for developing technologies. Does Li think that such competition creates effective AI technologies, or does it stifle collaboration?

Another consideration is that AI technologies require access and knowledge to utilize such tools. In libraries, the concept of the digital divide where access is limited to those who can afford it is the concept "information privilege" at play. Similarly, individuals who have affiliations with well-resourced institutions may have advantages over those who do not have such connections or relationships. As subscription fees in tools such as ChatGPT emerge, those who can afford to pay subscription fees will have access to technology that others do

not. These paywalls can hamper creativity and may perpetuate existing information privilege issues, which then exacerbates existing inequalities.

Enriching the book is the fact that Li's work in AI draws on multidisciplinary approaches, from medicine to information science. Li has worked side-by-side with numerous researchers, tech CEOs, experts, and everyday people. The author does an excellent job of synthesizing and breaking down complex ideas and topics within the field of AI. Li describes how her own interest began with working on an image recognition project—the ImageNet database, which involved researchers classifying millions of digital images that became training data for AI systems back in 2006. And she discusses apprehension surrounding AI and surveillance, comparing how ImageNet scraped millions of photos to generative AI tools aggregating large amounts of data for its knowledge base. This initial project, along with others in which she's been a member or led, shows that she is well-informed of AI issues. Li discusses ethical and privacy concerns related to surveillance and the biases that are materializing from using AI—issues that have shaped her own understanding of the technology's potential impact, as well as its limitations.

Li also describes the problems of labels generated automatically by Yahoo's Flickr and Google Photo Services due to the lack of diverse data sets, which, in turn, creates biased algorithms. Li wrote, "ImageNet included, exacerbated poorly tested algorithms and questionable decision making. When the internet presents a predominately white, Western, and often male picture of everyday life, we're left with the technology that struggles to make sense of everyone else" (p. 275). Li questions, for example, a surveillance system that tracks when people washed their hands, or how AI has been shown to discriminate against loan applications, parole requests, or job applications due to biases inherent in the programming. Li writes: "Everything this new generation of AI was able to do—whether good or bad, expected or otherwise—was complicated by the lack of transparency intrinsic to its design" (p. 284).

Of particular interest to library and information professionals, is Li's mention of arXiv, the online repository of academic pre-print articles for physics and engineering, as well as the importance of open access in providing timely materials over those that may become outdated after a lengthy peer-reviewed process. These topics—open access and collaboration—are present throughout the book and provide a subtle foundation for her discussion.

Readers interested in how AI is shaping society in an accelerated manner may find Li's book a fascinating insight into one computer science professor's vision of the AI world. With the potential to impact librarianship, AI's role in academics remains to be seen. Li acknowledges that the future of AI is uncertain; however, she points out that the field continues to become "more diverse, more inclusive, and more open to expertise from other disciplines," which may help us ensure that the system continues to reflect these changes for a better society. — *Raymond Pun, Alder Graduate School of Education*

The Critical Librarianship and Pedagogy Symposium: Reflections, Revisions, and New Works, Yvonne Mery and Anthony Sanchez (eds.), ACRL, 2023. 220p. Softcover, $65.00. 9780838939529

Since 2016, the University of Arizona Libraries has hosted the Critical Librarianship and Pedagogy Symposium (CLAPS), a free, biennial event focused on critical pedagogy in librarianship. Edited by University of Arizona librarians Yvonne Mery and Anthony Sanchez, this volume—*The Critical Librarianship and Pedagogy Symposium: Reflections, Revisions, and*