

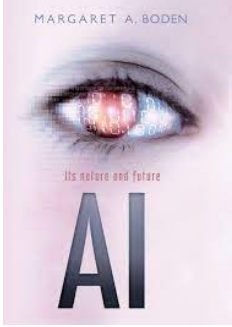


Reading List (Computer Science)

<p>1. <i>Computational Fairy Tales</i> by Jeremy Kubica</p>	<p>CreateSpace, 2012. A romp through the principles of computational thinking, illustrating high-level computer science concepts, the motivation behind them, and their application via the medium of a fairy tale. Aimed at secondary school students. "Bonkers, but very enjoyable."</p>	
<p>2. <i>Artificial Intelligence: A Ladybird Expert Book</i> by Michael Wooldridge</p>	<p>Michael Joseph Books, 2018. Written by our Head of Department, this book "...chronicles the development of intelligent machines, from Turing's dream of machines that think, to today's digital assistants like Siri and Alexa."</p>	
<p>3. <i>Once Upon an Algorithm: How Stories Explain Computing</i> by Martin Erwig; MIT Press, 2017</p>	<p>Concepts in Computer Science explained through familiar stories such as Hansel and Gretel, Sherlock Holmes, the movie Groundhog Day, and Harry Potter.</p>	
<p>4. <i>Computer Science: An Overview</i> by J. Glenn Brookshear; Pearson, 2014</p>	<p>Overview of what computer science is all about: each topic is presented with its historical perspective, current state, and future potential, as well as ethical issues.</p>	
<p>5. <i>Code: The Hidden Language of Computer Hardware and Software</i> by Charles Petzold. Microsoft Press, 2000</p>	<p>What do flashlights, the British invasion, black cats, and seesaws have to do with computers? ...see how ingenuity and our very human compulsion to communicate have driven the technological innovations of the past two centuries.</p>	
<p>6. <i>The Pattern on the Stone: The Simple Ideas That Make Computers Work</i> by Daniel Hillis; Basic Books, 1999</p>	<p>Explains the basic concepts of the computer in everyday language.</p>	

<p>7. <i>The Information: A History, a Theory, a Flood</i> by James Gleick; Fourth Estate, 2012</p>	<p>A chronicle that shows how information has become "the modern era's defining quality - the blood, the fuel, the vital principle of our world.</p>	
<p>8. <i>Outnumbered: From Facebook and Google to fake news and filter-bubbles – the algorithms that control our lives</i> by David Sumpter; Bloomsbury Sigma, 2018</p>	<p>An applied mathematician takes a look at what algorithms are doing with our data and how they are changing our lives.</p>	
<p>9. <i>AI: Its Nature and Future</i> by Margaret A Boden; Oxford University Press, 2016</p>	<p>Reviews the philosophical and technological challenges raised by Artificial Intelligence, considering whether programs could ever be really intelligent, creative or even conscious, and shows how the pursuit of Artificial Intelligence has helped us to appreciate how human and animal minds are possible</p>	
<p>10. <i>The Code Book</i> by Simon Singh; Fourth Estate, 2002</p>	<p>Not strictly about Computer Science, but an interesting introduction to code-breaking and cryptography, fields that have a strong connection to Computer Science</p>	