

Weaving the Web

The Past, Present and Future of the World Wide Web by its Inventor

by Tim Berners-Lee
with Mark Fischetti
Published by Orion
Business, London, 1999.
RRP: \$29.95
ISBN: 0 75282 090 7
244 pages

Tim Berners-Lee invented the World Wide Web. He established the standards for addressing, linking and transferring documents on the Web (URLs, HTML and HTTP). As well, he succeeded in getting his proposals for the technology and its protocols adopted, enabling it to snowball as it has done onto the global scene.

The son of mathematicians who contributed to the programming of the world's first commercial stored-program computer in the early 1950s, Berners-Lee was raised in an environment which thrived on the idea that, in principle, a person could program a computer to do almost anything.

Armed with a degree in physics from Oxford University, the author's open challenge was presented to him at CERN, the European Particle Physics Laboratory in Geneva during the 1980s where Berners-Lee responded to a need by the research community there to be able to read and transmit files across the complex range of platforms at CERN. He sought a solution with common rules on which everybody agreed without imposing ways in which the CERN researchers should categorise their data. In so doing Berners-Lee determined that the system he would create had to be decentralised, and it had to be

scalable. The circumstances at CERN represented a microcosm for the data transfer issues which then could be applied to a global networked situation.

Weaving the Web recounts the early days of the development of the Web when Berners-Lee focussed on a long-held idea of random connections, similar to those which the brain makes in its own thought processes, moving from thought to thought without any apparent logical connection. With this in mind he steered away from a model employing rigid hierarchical information matrices and moved instead towards the hypertext model as a means of recreating that randomness in the transfer of data.

According to this book, Berners-Lee's work was, and still is, driven by his commitment to the sharing of knowledge by all people and the belief that the Web must be a universal space across which all hypertext links can travel. It was designed too, as a place where information could exist – or remain – and which went beyond the transience of email.

Like Berners-Lee, the book is modest as well as fair in its acknowledgement of the collective accumulation of knowledge which preceded his own, and which contributed to his development of the Web. For example, the Transfer Control Protocol (TCP) was developed at the University of Wollongong.

The book describes the evolution of browsers and those times when the World Wide Web looked as though it may be pipped at the post by other internet developments in the early 1990s, such as Mosaic. Ultimately CERN's decision to allow the WWW code to run free in the public internet domain was

critical in aiding its adoption by the internet community.

Berners-Lee's role in maintaining an engagement with the www-talk community and the open processes which characterised internet developments also played a vital role in getting the World Wide Web to catch on. It was, after all, this community who set up the early Web servers and who provided the critical feedback to encourage the continuation of the work and the weaving of the Web itself.

As a subject for a Hollywood blockbuster, the Tim Berners-Lee story would be about a good guy who had the vision and conviction to stick to his guns at a time when opportunism and entrepreneurialism was stabbing at the heart of a world in which several decades of basic socialist values were under threat. From a management perspective, he would be an exemplar of one whose outcomes were a product of a comprehensive vision, personal skill and goal-setting.

In real life, Berners-Lee has made no personal financial investment in the development of the World Wide Web. He is currently the director of the World Wide Web Consortium (W3C) and is principal research scientist at the Massachusetts Institute of Technology Laboratory for Computer Science.

Weaving the Web provides the definitive version of this story which has been the subject of many inaccuracies and distortions. Straight from the horse's mouth, it is an easy and accessible book which provides a clear insight into an extraordinary conjunction of vision, intellect and determined action.

Christine Conlon is a Web producer and lecturer in Online Journalism, UTS