Dick van Lente, *Prophets of Computing. Visions of Society Transformed by Computing* (New York: Association for Computing Machinery, 2022). xviii + 537 pp. ISBN 9781450398152.

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As was expected, the introduction of computers has brought about major transformations in our society. When these changes are compared transnationally by way of narrative discourse analysis, the traditional macro history highlights a panoply of prophets. They range from computer scientists and engineers to economists, sociologists, journalists, artists, writers, and business executives. Dick van Lente's analysis of *meta-narratives of socio-technical change* features a theoretical framework involving abstract concepts of revolution, technological determinism, cultural lag, universalism and globalization, modernization, diffusion, and appropriation. By comparing experiences across capitalist, communist, and postcolonial nations, it shows that computing was never a purely Western story. Instead, local politics, culture, and industrial ambitions shaped the way countries adopted and adapted to new technologies. Together, these chapters reveal a complex global history of computers — one fed by both dreams of progress and deep anxieties about the future.

Part I, titled "Across the Iron Curtain", discusses East/West divisions. The diverse use of and approach to sources in this volume is reflected in the shifting balance between the vision and the actual application of computing, in addition to who was considered a prophet. Centering around narratives of modernity in popular media, Ksenia Tatarchenko's (visual) discourse analyzes two *Time* magazine covers from 1950 and 1965 by a Russian-born illustrator in both the United States and the Soviet Union (chapter 2). David Schmudde (chapter 3) instead focusses on the vision of one entrepreneur, Jack Tramiel, his migration from Poland through Germany during the Holocaust to the United States and Canada, as well as Commodore's global approach to manufacturing and distributing microcomputers during the Cold War. Martin Schmidt (chapter 4) weighs both the vision and the utilization of computers in banking in East and West Germany.

Part II on " Building National Computer Cultures" places national stories in an international context. This section discusses five national cases from Britain, France, and the Netherlands in Europe to China and India in Asia. James Sumner strongly emphasizes the link between

British politics and several computer manufacturers (chapter 5), while still critically embedding his narrative in the international scene of the time. Valérie Schaffer and Benjamin Thierry take a similar approach in embedding the French national context (chapter 6) in transnational competition and collaboration. Emphasizing geopolitical and industrial strategies results in a deliberate top-down approach mainly based on French and European reports. Dick van Lente offsets the previous nationalism prevalent in other countries with the Dutch sentiment that the Netherlands should keep up with international developments (chapter 7). He uses word frequencies to analyze sentiments in the press and critically evaluates a popular family magazine as a representation of the interests of the broader public. In the process, Van Lente notices some underlying anxiety despite a usually optimistic approach to computers. The Chinese chapter (chapter 8) sketches the history based mainly on policy reports, including a small section based on newspapers and science fiction novels. Michael Homberg's chapter on digital India (chapter 9) depicts a very nuanced and incredibly well-written account of India's quest for independence. The chapter discusses three forms of independence: training *manpower* and experts, accumulating *know-how* or expertise, and producing *material resources of hardware* (p. 321).

Finally, part III returns to the more fictional visions and earlier future predictions of – as it describes them – "Preparing for the Computer Age". This portion contains several chapters depicting the reception of computers in postcolonial societies. The Polish chapter (chapter 10) discusses "Computers in the Shadow of Communism" based on popular scientific books, magazines, and science fiction literature. The research, however, leans more toward a literary study than a historical account. Hirofumi Utsumi and Yoshinobu Takazakura introduce a theoretical framework of hybrid modernity applicable beyond Japan (chapter 11) in the interaction between knowledge types and socio-political systems (p. 364). This chapter demonstrates a proper discourse analysis with a theoretical framework placed in a historical context, based on keyword searches and article and advertisement frequencies in a newspaper database. The Japanese author of a book titled *Computopia* considered three types of knowledge: computers would namely produce, process, and store information (p. 383). The *Computopia* narrative also found its way to South Korea (chapter 12), as discussed by Dongwon Jo. Korea's "state-driven, science and technology-based, and export-led industrialization" started in the 1960s under an authoritarian regime, lasting until the mid-1990s (p. 402). In New Zealand (chapter 13), four

themes emerge from the discourse analysis: freedom or control, job losses or increased leisure time, the need for education, and privacy concerns (p. 422). Trade and popular magazines are supplemented with conference proceedings to study changes in the public perception of computers (p. 423).

Taken as a whole, this volume shows how public opinion wavers between either optimism and trepidation (New Zealand, p. 424) or utopian versus dystopian views of computing (Australia, p. 436); fascination and frustration (Korea, p. 401); and euphoria and skepticism (India, p. 322). Future Studies have often heralded an optimistic account of computing whereas science fiction quickly propagated a negative view of it. Dick van Lente concludes that three causes for concern were universal: "unemployment caused by automation, the accumulation of power in the hands of computer scientists and engineers, and the threat of a totalitarian state" (p. 466). While Van Lente does recognize that computing "reinforced existing inequalities" (p. 472), the observations about India and New Zealand are more outspoken. In opposition to a statement in the *New York Times* that globalization and digitalization reduced social inequality, for instance, Homberg states that "the global Indian diaspora" was in fact largely due to "labor migration in the computer industry" further dividing the Global North and South. "In India, generational, gender and socioeconomic cleavages have been mirrored in and (re)produced by the access to and use of technology on a national scale" (p. 319). As for New Zealand, Janet Toland claims that levels of unemployment steered the perception of computers from increasing leisure time in times of high employment levels to the cause of mass unemployment at times of higher unemployment (p. 437). Jobs traditionally held by women were at a much higher risk of disappearing altogether when tasks were relegated to computers (p. 439). The notion of development as "'planned' and executed by experts [...] and aimed at some conception of social improvement was the core of every version of modernization." (p. 462) Concerns over privacy violations by the state at a time when electronic population registries were discussed or introduced led to stark opposition "directed against the state" (p. 470).

While some authors of this volume were particularly good at distinguishing between expectations versus reality, others remained so focused on the visions of prophets that they seemingly forgot about the actual uses and users of computers. How ordinary people adapted to and resisted these changes remains a missing piece. By focusing more on elites' visions, the book sometimes overlooks the messy, uneven

reality of computerization 'from below'. Nevertheless, the collection succeeds in highlighting how visions of computing have differed across political, economic, and cultural contexts. It challenges the common narrative that computing was a purely American or Western phenomenon, showing how countries across the world, from India to Poland to New Zealand, shaped their own paths toward a computerized society.

Sytze Van Herck, Ghent University