

The Secret War Between Downloading and Uploading: Tales of the Computer as Culture Machine by Peter Lunenfeld. Cambridge, MA: MIT Press, 2011. 144 pp. ISBN 9780262015479.

In *The Secret War Between Downloading and Uploading*, Peter Lunenfeld provides a history of the computer as a cultural machine. He describes how the computer should be used to produce culture in the twenty-first century. Lunenfeld argues that the participatory nature of the computer is currently neglected or created into a commodity, negating its potential. Today's digital culture emphasizes the act of downloading over uploading; this phenomenon is demonstrated by the discrepancies between quick downloading speeds and slower uploading speeds and by the popularity of thin client mobile devices that lack advanced uploading capabilities. Lunenfeld argues that the imbalance between digital production and consumption activities is producing "cultural diabetes": unhealthy, mindless consumption of mass-produced cultural goods. *The Secret War Between Downloading and Uploading* makes a case for a digital culture in which modes of production are favored over modes of consumption by offering the reader a set of tools to engage in meaningful downloading and mindful uploading, which include a new vocabulary and historical context.

The introduction and first five chapters of the book work together both chronologically and developmentally. They expand upon the context of Lunenfeld's theory from a single point of tension to a wider historical context. Over the course of the text, Lunenfeld moves from examining the struggle between individuals' uploading and downloading habits to an analysis of different periods: the past, current culture, and potential futures. An additional section, titled "Generations," follows these initial chapters and provides a history of the computer as a cultural machine by identifying six generations of transformation. In each generation, Lunenfeld chooses two symbolic cultural figures. His history focuses on describing the contribution of these figures and their personal stance on computing as a means of describing an entire history. This method creates a very subjective and general history that avoids numerous complexities and favors the historical figures Lunenfeld deems most central. The history is also overly linear, assuming a regular progression between Lunenfeld's artificially created generations. It is admirable that Lunenfeld has endeavored to create an overarching history of the computer as a cultural machine; however, it is too generalized and out of sync with the rest of the text. In the introduction, Lunenfeld notes that "Generations" can be read before, after, or during the text. Yet, his decision to include it at the end of the text creates a confusing and anticlimactic conclusion to his book.

In the body of text preceding the "Generations" section, Lunenfeld creates a new language to discuss how the computer can and should function as a cultural machine. In the introduction, Lunenfeld states, "the body of the book engages with overarching investigations that generate not just new findings but also new ways of talking about these findings" (p. x). The book is full of newly coined

terms such as *stickiness*, a term used to describe ideas and experiences that attract other ideas, creating a new and generative whole rather than merely distracting the consumer. Much of the text is organized and driven by an explanation of these new terms, which serve as a pathway to accessing Lunenfeld's theories of the computer as a media machine. At its best, Lunenfeld's terminology is inventive and enlightening, or to use the author's term, *sticky*. For example, he describes our current cultural moment as *unimodern* rather than postmodern. Unimodern is a term that arises from a description of the computer as a unimedia machine in which all information, whether text, image, or sound, exists as bits. In unimedia, traditional distinctions between medium and style evaporate, supporting a culture of remix and reuse. Lunenfeld argues that our culture needs to consider new ways of categorizing and curating unimodern cultural works as well as to devise creative solutions to industry-driven copyright laws. In this instance, Lunenfeld's term is successfully employed to explain current cultural conditions and identify areas for future development. However, some of his terms such as *89/11*, used to describe the American cultural events from 1989 to September 11, 2001, do not produce insight because they are too briefly handled. Terms like *89/11* only add a layer of incomprehension to Lunenfeld's argument, neglecting some of his more nuanced questions such as the role of the critic in the process of meaningful downloading and mindful uploading. In short, Lunenfeld introduces too much terminology throughout the book. These new terms overload and can distract the reader from his argument, which would be stronger if Lunenfeld pared down his invented lexicon to a few key terms.

Lunenfeld's methodology depends on mapping out a series of dichotomies and, when possible, transforming these dichotomies from oppositional stances into complimentary ones. The title of the book indicates the central dichotomy: the oppositional relationship between downloading, which Lunenfeld aligns with simulation, and uploading, which Lunenfeld associates with participation. The text also frequently presents a best and worst case scenario for how the computer can be used in a given situation. When describing how the computer can act as the ultimate archiving machine in an era of information overload, Lunenfeld states, "at its best, this archive fever can produce a deeply textured, historically informed collage aesthetic. Yet just as easily, you can see the development of referential churn as historical styles and allusions are recycled on an ever-shrinking cycle" (p. 60). Herein, Lunenfeld asserts two extremes of how we can use the computer to cope with the increasing amounts of information in contemporary life. Oppositional statements like this give his argument a sense of urgency that inspires the reader to act. His ability to rework the downloading versus uploading dichotomy into a balanced relationship between meaningful downloading and mindful uploading through the process of redefinition is one of the major accomplishments of the text.

Lunenfeld's writing style is persuasive with a manifesto-like quality. Though he uses a wide range of cultural evidence to support his claims, a clear ideology regarding the importance of individual creativity and a resistance to consumer capital culture underlies his argument. Lunenfeld utilizes the rhetoric of dichotomies to provoke the reader from a passive position of consumption to one of active creation. Lunenfeld's book also operates like a manifesto in the range of audiences that it aspires to reach. His thesis of mindful consumption and meaningful creation applies to anyone involved in a creative process using a computer during the twenty-first century, a group that includes a wide range of scholars, artists, and designers. Though the text specifically references designers, Lunenfeld's concept of stickiness and his idea that creators should be open to the revision, remix, and reuse of their work provide useful ways of considering discourse and interaction in many different disciplines and creative practices. This applicability to any digital creative process is coupled with Lunenfeld's direct prose style, resulting in an engaging and pertinent text. The book is essential to scholars and professionals in information studies, humanities and critical media studies for its insight into the cultural life of information. Information professionals can internalize Lunenfeld's assertions and actively work to support meaningful downloading and mindful uploading in their communities.

Overall, Lunenfeld's book presents a passionate and thought-provoking argument that is particularly relevant to the current cultural moment. Lunenfeld's book is a worthwhile read for anyone studying, creating, or managing contemporary media, including Information professionals.

Reviewer

Amanda Milbourn completed her Masters of Library and Information Science in the Graduate School of Education and Information Studies at University of California Los Angeles. Her research interests include visual literacy, image cataloging, and reference work for artists. Her masters' portfolio explored visual literacy instruction in academic libraries. Milbourn discovered Lunenfeld's scholarship through researching her interests in popular culture, user-generated content, and cultural information exchange. She currently works as Assistant Librarian at Disney Consumer Products.