Brian Winston, Messages: Free Expression, Media and the West from Gutenberg to Google, New York: Routledge, 2006, 430 pp, \$26.95 (paperback).

Kim Vicente, **The Human Factor: Revolutionizing the Way People Live with Technology**, New York: Routledge, 2006, 352 pp, \$24.95 (paperback).

By Steven E. Jones, **Against Technology: From the Luddites to Neo-Luddism**, New York: Routledge, 2006, 277 pp, \$24.95 (paperback).

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The "machinery question," to borrow Victorian parlance for critical approaches to technology, remains alive and well. Three new titles from Routledge each offer informative perspectives through which to view relations between machinery and humanity, as well as strategic solutions. However, the asking of the question itself is carried out with varying degrees of success. While two successfully penetrate the hype endemic to technological discourse, one ends up largely reinforcing it.

Demystifying narratives of human and machine is a tricky task, and one that has been an ongoing project of media historian Winston. In previous books such as *Media Technology* and *Society and Technologies of Seeing*, Winston has assiduously researched the development and diffusion of communication technologies and related institutions. Rather than inventions of solitary genius or natural outcomes of scientific progress, he has documented the collaborative and social forces intrinsic to the development of communication technologies. Such technologies he has also shown to be less causes of revolutionary change and more participants in incremental social evolution. *Messages* continues this project, here viewed through the lens of free expression. However, rather than a mere chronology of press liberties and censorship battles, *Messages* instead presents the development of various media, with a special emphasis on repressive pressures against each. Winston examines the historical growth of printing, journalism, imaging, theater, film, radio, television, and their current convergences, with an added focus on forces which impacted the ability of these media to serve as conduits for free expression. In addition to censorship, these threats involve interactions between taste, class, litigation, politics, and regulation. In essence, *Messages* offers a dialectical rather than conflictual history of communications technology.

As in Winston's previous books, the historical research is thorough and wide-ranging, even if admittedly reliant on secondary sources. Delectable details abound, such as the etymology of "celebrity" or the racist origins of the broadcast advertising commercial. Written for the general reader, the tone is lucid, straightforward, and spiced with snarky moments, as when Winston comments that "the 'convergence' concept even at the technological level is somewhat asinine" (p. 377). Ultimately, Winston makes abundantly clear his argument that changes in communication technologies do not necessarily entail changes in communications content, and that new media do not necessarily offer utopic, revolutionary opportunities for increased expression, democratic participation, or social change. This sober

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assessment is offered in contrast to what he sees as a truly problematic component of the machinery question, namely, that "people have been distracted, if not bamboozled, by the hyperbole surrounding media technologies for the last 50 years" (p. 399).

Such zingers are my one quibble with *Messages*: not their presence but their relative scarcity. Feisty and compelling rhetoric are constrained mostly to the book's preamble and epilogue. There, his argument that freedom of expression is the paramount human right, now taken for granted and in desperate need of revitalization, is urgently expressed: "It is time to flee the enchantments of technology and the seductive rhetoric of the technicists as well as the ignorance of politicians and put the right of free expression -- and its sister right of access to information -- on a new foundation, one that accepts their centrality to a democratic society" (p. 399). Such verve fades throughout the bulk of the book, and, although the events recounted do speak for themselves, more powerful articulation of Winston's themes in missed in the intervening chapters.

Enchantments of technology and seductive rhetoric -- although of a dystopic and counterproductive variety -- unfortunately abound in Kim Vicente's *The Human Factor*. Vicente, an engineering professor and consultant, proffers his field of human factors engineering as a solution to the machinery question. This perspective designs technologies (encompassing everything from machinery to organizational charts and business processes) to fit people, rather than assuming people will mold themselves to the needs of technologies. In short, errors are less the fault of users than design. Given this, the premise of *The Human Factor* falls in the tradition of work by usability guru Jakob Neilsen, informational graphics expert Edward Tufte and, most closely, cognitive scientist Donald Norman. Vincente's book appears at first to be the much-needed update to Norman's seminal *The Design of Everyday Things*, but is ultimately marred by a demonization of technology as an autonomous, ubiquitous force on the verge of destroying the world. In contrast to the grace and clarity of the arguments of Neilsen, Tufte, and Norman -- which underscore their calls for intuitive, utilitarian design -- Vicente's bombast undermines his project.

Vincente does lay out his revolutionary program with a clear, coherent structure of five design factors: political, organizational, team, psychological, and physical. Each is extensively explained and developed with many compelling and detailed examples, particularly from fields such as aviation and medicine. Some, however -- such as confusing stovetop diagrams and space shuttle disasters -- are familiar from others' books. Also, for a human-centered philosophy, one human element is glaringly absent: emotion. His section on the psychological factor is highly rational and bereft of an analysis of the emotive or aesthetic dimension of technology design and use (but not, however, emotional effects such as frustration). It is a strange gap in a book with such frequent appeals to pathos. The first chapter begins with Chernobyl; the last concludes with images of crashing airplanes, epidemics, and four-year-olds killed by medical error. "Few people are aware of the immense magnitude and breadth of the threat posed by complex technological systems," Vincente warns. "Technology ... has gotten so far beyond human control that it's threatening the future of humankind" (p. 28). The dire situation is exacerbated by intellectual "cyclopes," mired in narrowly humanistic or mechanistic worldviews, and the terrible "Wizards" who lord over technological arcana. Vincente frequently asserts that technology has become "a threat to our quality of life" now "beyond our control" (9) and occurring "no matter where we look" (p. 27).

Adam Smith is Vincente's solution. The systems-thinking approach will "completely change how we live with technology" (p. 51) in a paradigm shift potentially on par with Copernicus, Darwin, or Einstein. "A Human-tech Revolution," he argues, "will help get us out of the detour of 'transitional instability' that we're currently mired in, and back onto the long, winding, but inevitable road of cultural progress" (p. 286). Many have critiqued the teleology of such progress narratives, yet there is a more fundamental contradiction here: Technology is beyond human control, ubiquitous, and threatening humanity's very existence -- yet cultural progress is blessedly inevitable.

Such inflammatory discussions of technology potentially bedevil the calls of Vincente and his predecessors for sensible and needed reforms. Worse yet, it feeds the moral panics around areas such as online porn and predators, regulatory protection against which can constrain freedom of expression, as described by Winston. Indeed, Vincente's book, viewed through Winston's lens, appears less a solution and more an inadvertent contribution to machinery problems.

Perhaps surprisingly, technological hyperbole is merely a subject, not the tone, of Steven A. Jones' book on those rowdy Luddites. In *Against Technology*, Jones, a professor of Romantic literature, does not offer a history of the 19th-century UK labor uprisings (although a summary of that information is included). Instead, Jones traces how the original aims and values of those groups evolved into the very different values of contemporary neo-Luddites and, indeed, most common contemporary conceptions of what Luddism entails. Drawing on historiography of Luddites, Jones traces their own myth-making, then continues on to their mythic incorporation in subsequent literary texts, such as the Romantic poets, Mary Shelley's *Frankenstein* and its progeny, and Charlotte Brontë's *Shirley*. He then analyzes this process continuing through the 1960s U.S. cultural upheavals and the current era of technology and terror. In so doing, Jones outlines how, although Luddites and neo-Luddites share radical anticapitalism and savvy media skills, they differ greatly in socioeconomic circumstance, class, philosophy, practice, and even fundamental conception of the enemy. The book is accessibly written and well-informed, with technology discussions avoiding naivete and literary analyses resisting theoretical quagmires. As such, it appeals not only to general readers but scholars from a variety of disciplines.

Ultimately Jones enacts a similar demystification to that of Winston, but, instead of utilizing a more materialist, historical view of technology, he examines its discontents -- those perhaps most vociferously asking the machinery question. In revealing the collective construction of myths of technological demonization, he defuses inflammatory technological discourse. By so doing, Jones offers a fascinating addition to technological history and the understanding of relations between humankind and its machines. Whereas Vincente puts an exclamation point on the machinery question, Jones and Winston contribute to the larger project of explaining that the question is about much more than just machinery.