This book, rich in pedagogy and practical tips, is ideal for teachers and school administrators at any level who want to make a change in their school learning environment through greening their schoolyards. Although this book is specific about greening school grounds, the rationale and process of greening school grounds may be applied to any other types of environmental projects such as recycling, school noise control, school waste management, and so on. This book can also be a valuable resource for university science methods courses in any preservice teacher education programs.

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Rose, E. (2000). *Hyper Texts: The Language and Culture of Educational Computing.* London, ON: The Althouse Press, (softcover), 210 pages.

Ellen Rose brings a background of instructional design, educational software development, technology-based instruction, and experiences as an instructor at the University of New Brunswick to bare on the language used to construct understandings of educational computing. Specifically, her intention in *Hyper Texts: The Language and Culture of Educational Computing* is to create a critical mindset that "prompts educators, parents, and others concerned with the use of computers ... to consider some of the assumptions and biases underlying all they read and hear on the subject" (p. xiii). Within this context she wishes us to see technological developments as a broad-based "cultural phenomena" (p. 190). To these ends Rose succeeds in a well-referenced and articulated book that avoids much of the techno-jargon and hyperbole often found in discussions of technology's place in education.

Rose discusses the binary oppositional arguments that control the current debate about the role technology is to play in education. In this debate, the opponents of computer technology use in schools and dire forecasts are placed along side the utopian predictions of advocates. Claims by techno-enthusiasts like Papert, Tascott, Gates, and others, that computer use in education will expand communication capacities, increase the ability to mold texts, improve

the shaping of culture, and, in turn, alter the way students think are situated along side neo-Luddites like Noble, Stoll, Roszak, and others. The latter often position educational computing amongst the hype of "mindless cliches" and "high-tech mumbo jumbo" (p. 2) found in the convoluted language of techies. Technology, as the panacea for all the ills befalling education, is placed in opposition to those who see traditional humanist values being swamped by the intrusion of digital media into limited instructional spaces.

Through examples taken from popular media, computer company advertisements, political policy statements, varied cultural texts, and the writings of critics and proponents, Rose does a superb job explaining the basic positions of the two opposing camps. She unearths the language used to support each claim. Importantly, she demonstrates that underlying this polemic is a limited amount of conclusive research (pp. 1-3) that would support the claims of either side. What gets lost in this oppositional battle is "an understanding of the role that language itself plays in shaping popular understandings about the machine and its appropriate educational uses" (p. 3).

Rose uses a post-structural perspective to catapult her past the "polarized mythologies" that encompasses the educational technology debate. She explicates the popular claims, language, and rhetoric used for the promoting and selling of computers in education. *Hyper Texts: The Language and Culture of Educational Computing* gives insights into the cultural discourse and the intent and power of the language surrounding technology's place in education.

Colonialism, techno-utopianism, and technological inevitability are three broad overlapping categories used to frame Rose's examination. She quotes Derrick de Kerchove's comment that "computers ... colonize their users before they go out and colonize everybody else, in a process that might be called psychotechnological colonialism" (p. 27). Here we are to assume the individual is caught in a constructed world of consumer driven power and economic imperatives. "What we see today is a different kind of power struggle and conquest: a global re-negotiation of margins and centres, in which authority is imposed on the basis of demonstrated technological superiority" (p. 24). Cyber-imperialism is shifting political power centres. Says Rose, "on a wired planet, the Third World suddenly becomes not a place but a condition, an othering based on an ability to maintain technological currency" (p. 25).

Because technological progress is inevitable in society, educational institutions have rushed to incorporate computers into the curriculum under the guise that no matter what the future holds for

students, technology will play a large part in their social and economic lives. Thus, subsumed in the politics of the language is the embedded desire to graduate technologically proficient students capable of moving about in a variety of electronic environments and formats.

Rose examines the context in which the varied oppositional discourses emerged. In chapter three she examines "popular tales about educating computing." In chapter four she interrogates the culture of courseware production and the language of those who develop and try to market it. In chapter five Rose looks at the way the 'information technology dream' is translated into government policy through an analysis of New Brunswick's Frank McKenna and his1987-1997 Premiership.

In the final chapter Rose turns to an examination of the role of intellectuals (teachers, journalists, technical experts, politicians, etc.) and how they "are increasingly driven by the imperatives of technology" (p. 14). She shows that advertising slogans like, "You're either part of the steamroller or part of the road" perpetuate the belief in the inevitability of technology and the digital survival skills required by those caught up in the digital age. In the educational debate, Rose specifically feels technological skills often get foregrounded over shifting discipline scope and content.

Rose demonstrates that with the "proliferation of digital technology during the past decade, the use of computers and connectivity have become not just a utilitarian function but also, rather more significantly, an identity-forming transaction with a powerful cultural icon" (p. 27). The requirement of connectivity (to be electronically connected to the world through computers or cell phones) continually shows up and frames First World debates.

As I write, a *Canada AM* roundtable argues the rights of restaurant owners and the owners of entire buildings to electronically jam digital communication devices. A representative of the telecommunications industry strongly argued against jamming on safety grounds. He cites the dangers that might occur when police officers are unable to use their cell phones or when a baby sitter is unable to make contact with parents out for a meal (it would seem that leaving the telephone number of the restaurant is not an option). A security industry expert counters by also using the issue of public safety. He argues electronic jamming devices protect the public from people trying to set off bombs by remote digital devices. Needless to say, and lost in the debate, is the fact that people in the real power centres (the United States president, Allan Greenspan, Bill Gates, or Barbara Walters) let

others in their employment enjoy 'connectivity' and insist on having firewalls built to protect any digital infringements on their physical or electronic spaces.

What Rose fails to do is to move into the public schools and detail the dialogues situated around the uses of technology. After all in the middle ground of the polemic there might be uses for technology that are both democratic and emancipatory for both students and teachers. Surely, within the particulars of specific pieces of technology and their applications can be found legitimate and beneficial uses that rise above the hyperbole of technological rhetoric. It is a given that the use of technology in schools has had a dismal list of failures. Radio was going to dramatically improve education in the 1920s. Language labs were going to change and revolutionize language acquisition practices. Television was going to revolutionize learning through student observations of experts conducting science experiments or using water colours. Public address systems interrupt the ebb and flow of classroom life. Bill Gates admits that stand-alone computers have shown uneven results and have never lived up to their over-hyped promises (p. 44). However, there have been some successes.

Video cassette recorders allow texts to be replayed, slowed down, or stopped for instruction or to gather meaning. Digital cameras allow students to inexpensively experiment (compared with development costs and film purchases) with visual texts and to manipulate those images through computer programs and editing applications. Networked computers do allow remote areas access to information and resources throughout the world; they do offer the chance to link distant places for educational purposes. Constructivist teachers do place digital technologies in the hands of students and ask them to build and construct knowledge or multiple layered representations of their understandings. Computer labs do seem like dinosaurs left over from a time of the language lab. However computers can be seen as more effective when demystified and taken out of the lab and placed in easy reach of students and teachers.

Maybe many of the debates in educational technology have become mute simply because society has moved on. Just as discussions of ballpoint pens ruining the handwriting of a generation or the evils of calculators when used in mathematics class seemed to have slipped away, maybe it is time to focus more attention on student products and productions.

What is it that technology now allows students to see, construct, visit, express, combat, combine, and transmit in the world? How can technology work toward bring about social justice and emancipatory

practices? How can technology be used to fight crass commercialism or support noble ideals?

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Harvey, P.-L. & Lemire, G. (2001). *La nouvelle éducation, NTIC, transdisciplinarité et communautique.* Quebec: Les Presses de l'université Laval, (softcover), 258 pages.

En liminaire, disons que ce livre s'adresse à tous ceux et celles qui s'intéressent au type d'humanisme que la technoscience peut produire ou détruire. L'auditoire est donc large et certains décideurs publics seront interpellés par ce discours dont la pertinence s'actualise autant par sa forme de langage, tant attendue dans plusieurs milieux intellectuels, que par sa nouveauté médiatique. Il sera donc bien accueilli, à notre avis.

Nous faisons ici la recension d'un ouvrage de grande envergure et c'est pour nous davantage un plaisir plus qu'une tâche. En effet, par sa facture attrayante, le livre des auteurs Harvey et Lemire est invitant. Sa structure est plaisante à tout esprit organisé. Dès le premier contact nous saisissons la nature scientifique de l'ouvrage. De plus, la volonté de servir le lecteur est manifeste et s'exprime de plusieurs façons. D'abord une table des matières claire et structurée de manière à permettre au lecteur qui voudrait à nouveau retrouver un passage oublié lors de la première lecture, de le faire rapidement. Étant bien découpée, elle permet donc au lecteur de choisir des parties selon sa disponibilité de temps ou d'intérêt et de s'y retrouver aisément.

S'ajoute une partie extraordinairement utile, rendue même nécessaire par le propos novateur et spécialisé, il s'agit du lexique-index-auteur. Grâce à celui-ci, la lecture est s'effectue plus rapidement et efficacement, de même que l'environnement verbal, un peu rébarbatif au départ, devient familier et le lecteur arrive à épouser l'usage des néologismes et à s'imprégner de leur sens contextualisé.

Constatons aussi la délicate attention des auteurs à fournir dans un épilogue les fondements théoriques nécessaires à l'étude du multimédia et des communautés virtuelles (p. 207). Plusieurs schémas