Paragraphoi

This section publishes short essays exploring topics of interest to the profession. Submissions should run to no more than 1200 words. Diverse opinions and spirited exchanges are welcome. The editor, however, reserves the right to return essays deemed unsuitable for the format.

Electronic Technology and Blindness: A New Solution to an Old Problem

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Just imagine that when you entered college as a freshman, you discovered that all books in the campus bookstores and library were in an unintelligible and inaccessible format, and that it was more or less left to you to get all your reading materials translated somehow into a format which you could understand and use. This nightmare is not some imaginary, mad dream but represents the reality faced by blind people worldwide. Recording and braille agencies for the blind can record or transcribe only a very small portion of all printed books, and virtually no scholarly journals ever find their way into a medium which the blind can use. The unfolding revolution in electronic communication and publishing offers great challenges and opportunities for blind people and others with learning disabilities. On the one hand, the sighted world can muddle along in its blithesome ignorance of the problems facing the blind in accessing sources of knowledge and information which sighted persons generally take for granted. If so, the result will simply be a repetition of what has been occurring for generations with only some small improvements. On the other hand, if enlightened thinking be allowed to influence the direction of the communication revolution, personal computers capable of voice synthesis together with braille computer printers will open up an entirely new world of information hitherto inaccessible to the blind. Just as the printing press and publication in vernacular languages destroyed the intellectual tyranny of the medieval clergy by democratizing knowledge, so current technology has the capability of freeing blind people from the traditional shackles of the printed word.

Computerized texts are already affecting the education of blind children in elementary and high schools. A substantial number of states in the U.S. have passed so–called braille bills which require publishers of textbooks to make their computerized texts available to facilitate reproduction in braille or other alternative media. What is needed, however, is a rational, more encompassing federal policy which would make it possible for all books to be purchased in a machine–readable format. Publishers, of course, are fearful of such an arrangement, but concerns over copyright infringement could be allayed by producing an electronic device similar to a VCR which can do nothing except read out such texts.

Permit me to use my own all too typical personal experience to illustrate what this actually means in real human terms. In our area of Classical Studies, the PHI CD-ROMS containing all of Classical Latin literature have revolutionized my own scholarly work and teaching. During my years as an undergraduate and graduate student, I worried from semester to semester about whether I myself or some agency would succeed in providing me with the necessary materials in a timely fashion. I have transcribed into braille thousands of lines of Homer, an entire book of Thucydides, and numerous smaller texts and passages. Over the years, my wife has likewise transcribed hundreds of pages of Greek and Latin texts. I once had to sit silently in a Greek class for a couple of weeks because an agency was forced to discontinue its transcription of the Herodotus text which we were reading. Fortunately, my wife came to the rescue, and due to her hours of emergency transcribing I was able to complete the course. Yet, within the past few years the PHI CD-ROMS have enabled me to manufacture my own personal library of essential Latin texts.

The advent of the personal computer and of communications via ASCII during the past decade have made available to the blind such things as electronic news services, bulletin boards and discussion groups, and library card catalogues. Nevertheless, as readers of this item will know, such information constitutes a very small portion of all material in written form. In the areas of ancient history and Classical studies there currently exist the following services accessible by modem: various discussion groups, *Electronic Antiquity*, *Bryn Mawr Classical Review*, the Table of Contents project, *TAPA*'s experimentation with preprints, and the policy of *Arethusa* and *AJP* to make their tables of contents electronically accessible. Sighted users of these services probably regard them as nifty conveniences. If they did not exist, the result would simply be inconvenience, whereas to the present blind author they represent a vital resource which tilts a very uneven playing field one or two degrees in his favor. Needless to say, these few services form a very small drop into a

voluminous Graeco-Roman bucket. Many more services in all areas will have to come into being if the blind are ever to become fully empowered. It is my fervent belief that the successful inclusion of the blind into the informational mainstream can be accomplished through enlightened awareness and creative solutions.

It is important that in the current cacophony surrounding the information superhighway, the voices of the blind, deaf, and other marginalized groups are not drowned out. We have a golden opportunity to do it right this time. If we let the chance slip away, the new technological system will simply perpetuate the iniquities of the past, perhaps even in an aggravated form. It makes far better economic sense to incorporate special functions, such as voice synthesis, into standard equipment than to overlook such needs, thereby requiring the development of expensive add–on adaptive units. For example, a voice synthesizer chip could be included as a standard feature in computers and related equipment at very small additional cost. At the present time, however, voice synthesizer hardware and software must be purchased separately, costing about $900 for a typical personal computer, enough to spell the difference between affordability and unaffordability. If the standard hardware and communication protocols for the future's multi-media network are designed with insufficient forethought, as is currently the case with respect to GUI (Graphical User Interface, using X-Windows and MS-Windows with no text in ASCII format), groups such as the blind will once again find themselves locked out from what the rest of society takes for granted, and old patterns of exclusion and dependence will continue. Technology is totally amoral. We are the ones who will decide whether it will be used to handicap or to liberate.