From a consumer's perspective, the future digital highway and interactive multimedia services on the Internet is both exciting and daunting. Certainly, the possibilities and potentials of this technology are staggering, but the downside of new services is the need for new equipment, training on new hardware and software, and rapid obsolescence. Acceptance of the digital highway and interactive multimedia, from a user-consumer perspective, must be based on three things: 1) seamless interoperability, 2) ease of use, and 3) widespread access.

Interoperability is crucial since the user exists in a "real world" environment with multiple platforms. Formal standards agreement must exist in order to maintain the user’s ability to pick his own hardware and software platforms without sacrificing access to interactive multimedia services. Hardware and software capability must exist to allow the seamless interaction of whatever data the user wishes to use. The type of data must be irrelevant that is whether the interactive multimedia services are trading hi-res graphics, full motion video, or some less stringent data, the user must be able to operate in exactly the same fashion.

Interoperability goes a long way in establishing ease of use, at least from a data perspective. It is critical, however, that user friendliness be built in to interactive multimedia services. To be truly useful, these services must be available to the bulk of computer users, not restricted to a small group of technological elitists. Therefore, the hardware and software that will be necessary to grant access to these services must require minimal efforts in installation and training. "Plug and play" devices should be the rule. Intelligence must be built into the systems to recognize, without user interventions, any "holes" in Interoperability. For instance, if some sort of data conversion is required to link to a multimedia service, the software must recognize the need, and perform the conversion in the background, without the intervention of the user.

Both interoperability and ease of use are meant to ensure universal access to the multimedia services. Access cannot be limited to the safe and comfortable world of the office local area network with its broadband communications and intranet services. The digital highway must exist at the same level of access as the current POTS network. The user’s "virtual office" will need the same levels of services as the user’s real office. Currently, the provision of digital access to the masses of computer users can be seen in such technologies as ISDN and cable modems. Even beyond the “virtual office” is true “nomadcity”, universal connectivity through wireless media like a cellular telephone. From a user’s perspective, the technology is not as important as the access to the service. That is, the user is not as concerned that the best technology win, but that some technology wins. Only a truly digital, truly broadband, communications network can provide the capability to make multimedia services useful on a wide scale. Current Internet sites are filled with hi-res graphics, full-motion video, and stereo sound. Access to these data using current telephone/modem connections is simply too cumbersome to be acceptable to the user.

A user-consumer must be able to take whatever system — laptop, palmtop, or desktop — plug it into a wall socket, (or a wireless connection) turn on the power, and, without a second thought, have access to any data. The user should be blissfully unaware of the technology required to grant ubiquitous access.

I would challenge those addressing the future of MultiMedia services in the 21st Century to recognize and deal with several important trends and key issues: 1) Nomadcity of use; 2) Growing expectations for increased product interoperability and ease of use; 3) Vastly increased user-consumer base; 4) Geometric explosion of data; 5) Ever shortening technology life-cycle; 6) Technology convergence; 7) Emerging complex legal issues; 8) Need to resolve language and cultural issues; and the 9) de jure-de facto ICT standards revolution.