Intelligent Videodisc and the Learning Society

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"It is cl-ar that continued growth and exploitation of information rests not only upon science's ability to produce new knowledge but also upon society's ability to learn and to apply knowledge in a productive way."

"Scholars note that while knowledge is expanding exponentially, our human rate of acquisition is significantly less and the proportion of knowable knowledge that we possess is growing smaller and smaller. In short, we are experiencing the start of what has been called a massive 'ignorance explosion.'"

"We must create niew techniques and new technologies to significantly augment the human skills that are necessary to convert data into information and to transform information into knowledge."

"Can systems that represent concepts in a variety of visual and uaditory ways imporve learning and memory and thereby enhance our cognitive processes?.... Researchers have hypothesized that dual coding of abstract concepts to be learned into both verbal forms andmental images would utilize both hemispheres of the brain and improve performance. Recent research using interactive graphics shows strong positive effects of mental imagery on both learning and memory."

"In order for 'little science' to keep up with major breakthroughs, universities and schools could use intelligent videodisc systems to simulate 'dry laboratory' experiments without requiring the acquisition of costly linear accelerators, nuclear reactors or large array telescopes or other big science laboratories or equipment systems. The large storage capacity of the videodisc makes it feasible to develop 'intelligent electronic books' that can present television and text and allow students to query the presentatio. An automated index, dictionary and glossary could be included."