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Science Notes - Review: SimEarth, Software for Planet Management

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Review: SimEarth, Software for Planet Management

Recently, I had the opportunity to review a computer program produced by MAXIS called "SimEarth." The program simulates many different aspects of a planet, including climate, evolution, atmospheric composition and civilization. The user designs, modifies, manages and nurtures a planet from creation through the formation of oceans, appearance of life, evolution and development of intelligence and a level of technology that can look beyond the planet to space. Inspired by James Lovelock's GAIA hypothesis, SimEarth simulates the Earth as a living organism.

I first used the program with my Environmental Studies class in the spring of 1991. One of the many features of the program is that it allows the user to start with Earth of 1990 and progress through the future. The user controls the energy investments (bio-energy, solar/wind, hydro/geo, fossil fuel and nuclear) as well as the energy allocations (philosophy, science, agriculture, medicine and art/media). A "Technology Timescale" gives the user such data as "sentient type," "highest technology," "median technology," "population" and "life quality" as well as a report on habitats.

The program itself is very comprehensive. Students found it very challenging and interesting as well as helpful in understanding the GAIA hypothesis. They found that Earth is a fragile planet, and, without correct decisions, many lost the planet in less than 100 years from their starting date (1990). We spent four days in the computer lab, concentrating on the energy issue as well as the problems of overpopulation and its future implications.

I think the program is a good experience for all high school science students. It contains many aspects that I have not addressed, such as the study of the other planets in our solar system. One of the finest aspects of the program, however, allows students to project what the earth will be like in the future and realize that the projection is entirely dependent upon choices they make along the way.

If you are unable to find the program locally, contact MAXIS, Two Theater Square, Suite 230, Orinda, CA 94563-3041, ph. (415) 254-9700. The program is available for IBM/Tandy or Macintosh and costs \$69.95 plus \$3 shipping and handling.

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