Consumer impacts

With the increasing currency being given to environmental issues these days, the ecological impact of consumer goods is becoming a growing concern. Often such concerns are focused on such things as the greenhouse emissions of private automobile use, the deleterious effects caused by heavy chemical use in industrial agriculture and the disposal issues brought about by consumer packaging.

As such, popular environmental rhetoric has, historically, given little attention to the environmental impacts of computers and other information technologies. Instead, the increasing ubiquity of IT in the school, office and government setting is frequently celebrated as reducing waste by eliminating the dependence on paper. However, this only reflects a blithe definition of sustainability and environmental impacts.

As Sager (2009) notes, the notion that computers are environmentally innocuous overlooks many of the environmental andhealthhazards posed by such toxic components as mercury and lead. This would not be a problem if such devices were built to last, but consumer electronics has consistently been an industry of disposable goods. As such, these devices eventually end up being discarded and all too often, most of these toxic components end up in landfills rather than being recycled.

Collectively referred to as e-waste, post-consumer computer products and electronics have become one of the fastest growing problems in waste management. Mayfield (2003) notes that according to the United States Environmental Protection Agency, the United States generates more e-waste than any other country, with about 4. 6 million tons of it entering landfills in 2000. As such, the critical environmental issue facing the electronics

industry is how they can properly manage the disposal or reuse of unwanted electronics and their components.

The recycling of such materials is a challenging issue. While the recycling of paper and soda cans is fairly simple – melting and converting vast swathes of material into reusable fodder –consumer electronics recycling is a labor intensive process that requires manual separation and extraction of individual components. (Sager, 2009) Furthermore, laborers involved in this process may be exposed to toxic chemicals, which is why companies like Dell were criticized for contracting recycling to prison laborers who were not afforded the same level of protective gear at other recycling facilities. (Mayfield, 2003)

Faludi (2006) also points out another oft-overlooked concern about the environmental impact of computers and consumer electronics: energy efficiency. The product cycle of consumer electronics today moves so rapidly, it is difficult to tell whether it is consumers or companies that are hastening the obsolescence of a broad number of products in ways that are detrimental to theenvironment: The result is the compulsive urge for faster processors that exert greater energy demands than is ideal: these powerhouses use up more power, and many are notorious for generating unnecessary heat – unnecessary in the sense that they demand greater power use from air conditioning.

Another issue is the waste generated by idle CPU use. Faludi (2006) opines that the demand for greater processor power is a needless one, since such resources are only maximized by high intensity programs, such as high performance multimedia applications like Adobe Premiere or the most

demanding new generation of videogames. As a result, the processors needed to run these programs spend a great portion of their “ on” time idly consuming power they don’t need. Faludi suggests that personal computers should downshift in CPU power in favor of resource networking.

Ultimately, what these issues should induce is the emergence of an industry initiative and consumer movement towards “ green computing” which emphasizes the need for consumer electronics and computing devices to curtail their environmental impacts not just by reducing the amount of toxic chemicals in them, but by retrofitting them with recyclable components, constructing them with biodegradable materials, increasing their energy efficiency and ultimately rethinking the paradigms of computer use. (Danby & Faludi, 2006)

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