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Information Technology and Global Ecological Crises: Soul and the Sustainability of Librarians¹

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In one of the anecdotes that Alec Guinness told about himself, Guinness checks his hat and coat at a restaurant and asks for a claim ticket. "That will not be necessary, sir," says the attendant smiling. Pleased at being recognized, Guinness later retrieves his garments, puts his hand in the coat pocket and finds a slip of paper on which is written, "Bald with glasses." This is a story that shows how different points of view can be-despite taking in all the same information. There are two reasons for using this anecdote:

1. The world is not what it appears to be.
2. Our point of view is what makes the difference between a superficial, one might even say self-serving, understanding of the circumstances we are in and one that is deeper, closer to reality.

Three contemporary trends are being developed that interact and will affect what could be called the sustainability of librarians. Librarians are only sustainable if *Homo sapiens* are sustainable, and *Homo sapiens* are only sustainable if the earth is sustained. Sustainability can be understood as - something that has the capacity to last, the ability to continue over the long term. These three trends converging at the beginning of our 21st century are the following:

- Information technology (IT) advances & innovation
- Global ecological crises (ECO)
- Human and societal values realignment, or Soul

Information Technology

IT is the universe that includes the Internet, the Web, Websites and portals, digital commerce, E-mail communication, Internet access devices and services, and all the supporting mechanisms for IT: electronics and telecommunications devices, and manufacturing, database management and all software tools. This revolution of IT affects every aspect of our lives-and many questions are still being asked about it because IT innovation is still in its infancy:

- If we can read pages of text at will on little electronic devices-Will books survive?
- If we can read news literally up-to-the-minute online-Will newspapers

survive?

- If we can buy whatever we want at the lowest possible price online-Will stores survive?
- If we can get information from Google anytime of the day or night-Will libraries survive?

Yes, yes, yes, and yes! IT does not change a basic fact: that the world is still about people and relationships; that in the course of all history of life on our planet, one of the forces of nature has always been to broaden the range of possibilities for life and for life experiences. Evolutionary biology tells us that. We started with one-celled organisms and we've developed elephants, hummingbirds, lemon trees, and monkeys with hands-at each step of the way adding more freedom, more possibility for exploration and development.

So, in this way IT is simply another of our life forces-as technology has always been, from the creation of the first stone ax to our harnessing of fire-it opens up for us a new range of experiences. Take my life for instance. Every time I go onto AOL to check my E-mail-which is 10 or 20 times a day-I look at the news headlines and even copy and paste into various files articles that look interesting to me. Yet, I still read the *San Francisco Chronicle* every morning-I like wandering through the sections of the paper. In fact I go out to pick it up on my front porch wrapped in a towel and T-shirt fresh out of the shower. It is part of my morning routine. It is the experience, not the information delivery, that is important to me. And now the dot.com-ers know that they can't defy the laws of gravity, or basic business practices. A company still needs to make money sometime fairly soon in its development. The old rules still apply.

But we Americans, for better or worse, love the new; and we seem to want to attribute to the "Next Big Thing" whatever it is that the last big thing failed to deliver. With each wave of technological improvement, we are ready to believe that promises left unfulfilled by the last wave will come to be. And we tend to forget the problems that have been left behind in the wake of each preceding technology wave. Consider this 1924 statement by educator Joseph Hart (as quoted in Talbott, 1995) which discusses how the new technology of electricity will surpass steam power in its ability to deliver individual freedom and control-values dear to the hearts of all Americans,

Centralization has claimed everything for a century: the results are apparent on every hand. But the reign of steam approaches its end: a new stage in the industrial revolution comes on. Electrical power breaking away from its servitude to steam is becoming independent. Electricity is a decentralizing form of power: it runs out over distributing lines and subdivides to all the

minutiae of life and need. Working with it, men may feel the thrill of control and freedom again. (p. 364)

From our distance of 76 years this writing sounds alarmingly naive, but doesn't this tone of optimism sound familiar? In Hart's case, he was not only naive, he was wrong. The production and distribution of electricity is centralized in the hands of a few large corporations. Rather than feeling the individual freedom and access that this writer predicts, we, whether individuals or businesses, are dependent on corporate energy companies-as we know all too well in California now! One of the greatest pleasures for back-to-the-landers is the ability to get 'off-the-grid'-to be able to produce, regulate, and control their energy costs and use.

Now, imagine that the quote is not about how a new energy source and distribution system will decentralize power, but how the Internet and information technology will liberate each computer user and decentralize information distribution. Are we harboring the same delusions at the early stages of this new IT revolution: that the use of IT and the Internet will give us more freedom in our lives; that computers will bring disparate peoples closer together; that digital commerce will deliver "cheaper, faster, better" products?

Then there are questions about manufacturing the computer itself. For every 25-kilogram computer, there are 63 kilograms of waste, 22 of them toxic (O'Meara, 2000, p. 127). These are the resources used to manufacture one eight-inch semiconductor wafer²:

- 4,267 cubic feet of bulk gases
- 3,787 gallons of waste water
- 27 pounds of chemicals
- 29 cubic feet of hazardous gases
- 9 pounds of hazardous waste
- 3,023 gallons of de-ionized water.

On a planet with limited raw materials and water, and inadequate systems for disposing of hazardous waste, that kind of manufacturing is unsustainable, period. But technology itself is not evil-we must simply be conscious of how to use it, how to control it, and how to evaluate its effect.

Global Ecological Crises

Another revolution that we are experiencing in our lifetimes is an environmental crisis of epic proportion though, amazingly, it is still controversial in some quarters. I count it as including the loss of species and

habitat worldwide, global warming, and the breakdown of earth's macro-systems (water, air, climate control, pollination, soil fertility, etc.). Finally the fisheries industry is admitting that they may have blown it big-time; and we're not just talking about wild Pacific Northwest salmon anymore. We're talking about all commercial fishing. And, by the way, the coral reefs are dying (Whitty, 2001). Frogs and other small reptiles are quietly disappearing. Any natural process on the earth that you would care to measure is in decline.

In the documentary by Bill Moyers on the chemical industry, he takes what is called a "body burden" blood test to detect the number of manmade chemicals in his blood. Moyers had 84 of a known 100 in his blood³. The body hangs onto these because they are non-organic compounds-there is no way to process them out of the body's system.

A People magazine (not *Mother Jones*, mind you, *People*!!) has an article about high school student Ashley Mulroy and her experiment to measure antibiotics in the water of her hometown Moundsville, West Virginia. She found penicillin, tetracycline, and vancomycin (Frankel & Foster, 2000). Antibiotics in the water means we are creating environments for super-bacteria which will be moving up the food chain looking for hosts.

Luna, the tree that Julia Butterfly Hill sat in for over two years to save, has been murdered by someone with experience, someone who hiked quite a distance with a 8-foot chain saw to cut nearly 1/3 of the way through Luna's tremendous girth. With these kinds of earth caretakers among us, we have much work to do⁴.

Soul

The human values revolution-the revolution of soul. This trend is indicated by the growing feeling of malaise in the workplace, a broader-based mistrust of the corporate bottom line, a disgust with the lobbying of big bucks for political favors, and the growing sense that our basic institutions-legal, governmental, educational, religious-they are not taking care of us. Ten years ago who would have guessed there would be a how-to niche for "soul in the workplace" literature. Yet, if you go to Amazon.com and type in "soul" you will get 4,230 matches, for books only.

Now we have some hard data that is measuring this trend many of us have been feeling. Statistician Paul H. Ray and psychologist Sherry Ruth Anderson have just published years of their survey data that show that a new demographic group is forming (Ray & Anderson, 2000). In the mid-1990s Ray discovered that 24% to 26% of Americans fit into a group he calls

"Cultural Creatives (CC)." Regionally there are no significant differences in distribution of CCs. As Ray says, "they're spread like peanut butter across the landscape." California is 5% higher and the Midwest and South are about 3% lower, and that is it. There is some preliminary indication that they are a much bigger percent in college towns: Boulder, Ann Arbor, Cambridge, for example. CCs are 36% of the San Francisco Bay area as of six years ago. Imagine a country the size of France suddenly sprouting in the middle of the United States.

You are likely to be in this Cultural Creative group if you:

- Love nature and are deeply concerned about its destruction.
- Want more equality for women at work and more women leaders in business and politics.
- Want to be involved in creating a new and better way of life in our country.
- Care intensely about both psychological and spiritual development.
- Like people and places that are exotic and foreign, and like experiencing and learning about other ways of life.

CCs are 50 million consumers who generate \$230 billion in sales. The individuals of this group are prime supporters of natural and organic products, alternative medicine, ecological goods and services, and personal development tools. (In fact, the organic food industry has finally caught the attention of the big food conglomerates because it is the fastest growing niche market in food-General Mills has just purchased Cascadian Farms-more corporate "grabbing" will no doubt follow.) This demographic group may provide the beginnings of a revolution of values that will transform this century. As aware consumers, we could propel a marketplace structure that, in combination with IT and the refocusing on human values, could change the landscape of human existence on our planet-home.

Now how do these issues relate to librarians & sustainability? First the obvious: These issues, trends and circumstances provide the environment in which you must work to create your own sustainability, the sustainability of your own life. And I mean this in quite a personal way: Are you getting enough sleep? Do you laugh enough? Is your work satisfying? These issues provide the background for your decisions, particularly at work. Technology is always out ahead of other human institutions-educational, legal, governmental-so it is no wonder that the issues of pornography on the Internet and who can access what information is coming to a head in public libraries. And what about information technology for information storage-this directly impacts your field (Baker, 2001). Was the decision to switch from newspaper storage to microfilm the right one? What other IT decisions will

you be called upon to make, perhaps without much guidance, as the wireless and nanotechnology revolutions hit your institutions?

Just remember that sustainability is about longevity, which in fact is one of the core missions of libraries as conservatories, not just of information but of *knowledge*. Your profession is a noble and venerable one-and probably one of the longest running professions in the history of *Homo sapiens*.

- In the third millennium BC, the Sumerians and Egyptians had "Houses of Tablet."
- Julius Caesar funded the first public library in 39 BC.
- Perhaps one of the first librarians by name was Annius Postumus who was appointed "Warden of the Libraries of the Divine Trajan" in 123 AD.
- And librarians have had the same problems for centuries: In the 15th century, Niccolo Niccoli's library had 400 manuscripts which had to be chained to the reading benches!

So, despite our culture's addiction to speed, I think you should consider yourselves and your profession exempt from the necessity to rush.

- Take your time.
- Think it through.
- *Feel it through carefully*. And do not be afraid to make your opinions known.

The times we live in demand holism-that one of our most critical challenges in the 21st century will be to heal the Cartesian dichotomy between mind and body, to reunite science with spirit, and to catalyze a revolution of values and consciousness. Libraries may be one of our institutions where this healing can take place and librarians could be the cultural healers. Libraries are under funded . . . and here I am, asking you to save the world! Every social institution is under funded now because in our culture we have misunderstood the value of our humanity and our partnership with nature. And what we misunderstand and, therefore undervalue, receives scarce resources from our bottom line.

It is difficult to be "awake" in 2001. It is painful to have to read the note in our coat pockets, because it does not just say "Bald with glasses." It says, "You are killing the animals-your partners in evolution," or "You are destroying the web of life that has taken billions of years to weave," and the dimension of this knowledge should and will rightly pitch us into profound grief. But even this current administration seems to understand the value of education so perhaps you will have the opportunity to leverage change. Be

ready. Seize every opportunity you have to be agents of positive change.

What will sustain librarians?

- Waken or restore or nurture your inner Spirit-and allow it to inform *all* your decisions.
- Remember that information is not Knowledge-digital information is just bits and bytes-reading the newspaper or visiting the library is an experience.
- As a Cultural Creative, use your creativity and imagination and idiosyncrasy *every day*.
- Cultivate the capacity to hold back a little-have the courage to conserve for us, and for our culture, things that we think we can discard with impunity.

Remind us that we cannot.

Endnotes

¹ Based on presentation for the Task Force on the Environment during American Library Association annual meeting in San Francisco, July 2001. Some parts were taken from several articles that author wrote for the online Canadian magazine *Mindjack* (<http://www.mindjack.com/>) and the *Environmental Quality Management* journal published by John Wiley & Sons.

² For more information on computer manufacturing see Ted Smith's *Silicon Valley Toxics Coalition* site at <http://www.svtc.org/>

³ Ann, Hodges. (2001). Bill Moyers tackles industry head-on in Trade Secrets. *Houston Chronicle* site at <http://www.chron.com/cs/CDA/story.hts/features/hodges/857472>

⁴ Luna has been "repaired" with large metal bolts that cable her trunk together and to other surrounding trees to keep her supported. The long-term effects of this rescue effort will not be clear for many years.

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