

## PROTIST WEB ALERT

### The Best of Times

This is my final web alert in a continuous series, mainly due to having culled most of the interesting protist sites. But since the web is dynamic and always changing, I am sure that new valuable sites will appear and I hope to present web alerts sporadically when appropriate. However, since this is the song of my swan, I would like to request your indulgence (and that of our fearless Editor-in-Chief) for a little philosophical waxing and waning.

I started this series with an article entitled "Protists on the Web" (<http://www.uni-koeln.de/math-nat-fak/botanik/protist/Protists%20on%20the%20Web.html>) in which I stated that the web was a true revolution in communication. Today I am convinced that this was an understatement and that the web is perhaps the next step in the evolution of our species. It represents the beginning of instant and continuous communication between all humans, which in a way is the annealing of our species into a super-organism. Of course this simplified system that exists today is limited to one way communication and is barely interactive but it will evolve into totally interactive, totally encompassing communication. Every person will have instant access, perhaps through chip implants, to all accumulated human knowledge, and be able to add their intellectual and even emotional and political contributions to this pool with ease. At this time we can not even conceive of such a system but the beginnings are there and cannot be impeded.

The question of whether this is a good thing is an important one and ethical concerns should help steer the technology and avoid dangerous avenues. But the history of our species shows that change can not be stopped and will ooze out of all walls put up to block it. Ethical concerns should help avoid the dark scenarios in which dictatorial governments by means of this technology have complete knowl-

edge of the location, genetic composition, speech and perhaps even thoughts of its subjects. But the light scenarios are more compelling and marvelous to think about.

I do have however one overriding fear and that is that our species may destroy itself together with this marvelous communication system, and that would be a real shame. Malthus was right and any species, be it protist or human, cannot increase exponentially with limited resources of food, water and energy. Too many people inhabit this earth already and it is getting worse. This is the underlying reason for all human problems, including famines, wars and terrorism. We have intentionally and inadvertently initiated the most massive extinction of species in evolutionary history and have again, intentionally and inadvertently, made macro changes in the earth's various normally self-regulating systems such as climate and atmospheric composition.

I don't want to end this musing on such a dark note. Let me instead discuss why I am in this crazy business. Imagine (my mother would say), grown men spending all their time studying little creatures that no one can see! I would respond, if she were here, that this is the best of times – grown men (and women) are paid by society to simply discover new knowledge about the world, its creatures and the universe in which we live. This is truly the best of times.

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