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LTSN Programme – <u>Teaching Ethics to Bioscience Students</u> 12 February 2003, Stirling University, Barry Stevens-Wood and Nels Granholm Biology Dept., Manchester Metropolitan University, John Dalton Bldg, Chester St. Manchester M1 5GD, phone 10612-471226, email <n.h.granholm@mmu.ac.uk

<u>Abstract:</u> Drs. Barry Stevens-Wood and Nels H. Granholm will discuss our faculty exchange between Manchester Metropolitan University and South Dakota State University with respect to our "Bioethics Initiative". Our primary objectives over the next three months will be to: 1) create a flexible WEB-based core or "spine" of the essentials of bioethics – classical theory and contemporary practice, 2) facilitate the production of discipline-based case studies (or "ribs off the spine") by various faculty within the Department of Biological Sciences at MMU, and 3) develop the mechanisms of an Internet-based, simultaneous student exchange enabling both MMU and SDSU students to grapple with contemporary bioethical dilemmas from both European and American perspectives.

Introductory Remarks:

Two excellent texts: 1) Bryant, J., Baggot-LaVelle, L., and Searle, J. (Eds). 2002. *Bioethics for Scientists.* John Wiley and Sons. ISBN 0-471-495328 (a number of good chapters on environmental ethics, agricultural ethics, and medical ethics) and 2) Pretty, Jules (about 2002). *Agri Culture*. (excellent treatment of the history of agriculture in the UK, concepts of sustainability, and some recommendations for the future).

I. Flexible WEB-based core of Spine of Bioethics essentials

Broad contents include breadth and depth of contemporary bioethics, theories and principles of ethics, conduct of formal ethical analysis (3-step process – facts, ethical options, and rigorous justification of selected option(s)), and a summary.

Emphases: a) Ethics is topical and immediate, b) Ethics is eminently practical, c) What does our future hold (genetic engineering, global resource considerations, and science & the scientific method – **a major thrust**), d) Applicability of ethics to virtually everything we do (must use care to stay focused here), e) Benefits and bonuses derived from training in ethics/bioethics, and others

Flexible and "happy" access - we would like to be able to go back and forth between our case studies (ribs) and the core/spine in fairly simple, friendly, and accessible ways. Rather than dreading formal ethical analysis (which however is essential), we would like students have some fun and enjoyment with ethical analysis as well as to recognize the seriousness and need for philosophical rigor.

II. Production of Discipline-based Case Studies:

Variety of different exercises – short cases, examples (like the Bloggs scenarios), classroom exercises (nutritional deprivation in laboratory animals example), and full – blown classical case studies (like Golden Rice case study)

How to write/produce productive case studies – bare essentials of a case study: 1) A bona fide bioethical dilemma 2) Clear presentation of the facts of the case (absolutely essential), 3) Careful delineation of the constraints of the case based on specific ends you wish to accomplish – necessary to stay on focus **and** decrease student anxiety, 4) Sufficiently flexible for a full-blown ethical analysis and perhaps some directions on carrying out that comprehensive analysis, and 5) Clarity and precision in writing, and others.

Examples of classical case studies – available in the literature especially in bioethics texts such as the Bryant et al. (2002).

III. Mechanisms of an Internet-based simultaneous student exchange for ethical analysis between MMU and SDSU.

Mechanics – a) With respect to the website, options on structuring the unit? Traditional and chronological method with a solid foundation of ethics at the beginning followed by specific components and case studies. Or, perhaps make it more thematic, i.e., encourage students to begin by entering the site with a particular topic in mind, deal with specific topics/themes allowing liberty to weave their way through the site, and at the same time, connecting back to formal ethical analysis in friendly ways (daunting task), b) Two students from each institution and one faculty member deliberating on the same issue (stem cell research, genetic analysis of preimplantation embryos, wide range of GMO considerations), c) How is the dialogue to be structured? d) Can we facilitate the communication by online live broadcasts between our two institutions?, e) With respect to chat rooms and other Internet interactions, need efficient assessment methods, f) Overall assessment (direct examination method or WEB-based assessment). Given our flexible web entry and "circuitous navigation scheme" we may be able to couple navigation or web travel with assessment (i.e., cannot move on, until certain information is mastered). May use a combination of assessment methods – portfolio as well.

<u>Summary:</u> Bioethics training is a sound endeavor. It is a product we can be proud to sell. Philosophically, I try to exhibit humility in my knowledge and application of philosophical principles. As scientists, we may want to walk quietly and softly ever mindful of homocentric hubris (see Mary Shelley's <u>Frankenstein</u>). At the end of May 2003, we hope to have a good start for the writing and creation of: a) A workable and user-friendly WEB-based bioethics core/spine, b) A number of productive case studies (ribs) that have been partially tested in classroom exercises this Spring (2003), c) A realistic strategy for productive and reciprocal bioethics website navigation between the core of bioethics theory (spine) and broad bioethical subdisciplines/case studies (ribs) and d) A realistic and workable strategy (some of which has been tested) for linking MMU and SDSU via the Internet for the actual deliberation of bioethical issues this Fall (2003). Thank you.