

Joint Plan of Action for Regional Networking in Bioethics Education Towards Better Bioethics Education

We the participants at the **UNESCO Asia-Pacific Conference on Bioethics Education**, held 26-28 July 2006 in Seoul, Republic of Korea, together with other members of the UNESCO Asia-Pacific School of Ethics adopt the following joint plan of action.

1. Rationale for bioethics education (Reason for actions)

Given the rapid development of science and technology, for example, genetic engineering, neuron-engineering, and nanotechnology, and the implications these raise for individuals and society, people need to have the opportunity to shape the direction, purposes and goals of science and technology.

Societies and communities will progress in a more just, equitable and sustainable direction if the cultural, ethical, and spiritual values of those societies are central determinants in shaping technology and science.

Bioethics includes ethical issues related to (all branches of knowledge, including) the environment, life sciences, and medicine and associated technologies, and the participants at this conference accepted the broadest possible understanding of bioethics. They also recognize that many of the same points can be said for development of education to address the ethical issues associated with science and technology in general.

To ensure public participation and making wise decisions about their and their children's future, providing bioethics education at all levels is necessary.

As individuals from some of the member states who have agreed to Declarations on Bioethics, we recognize that working together as a regional network will be an effective means of achieving the goals below. Taken together, there is a need for people to be able to express/discuss their values through bioethics education for all groups of human society.

2. The societal mandate for bioethics education

We remind governments and all persons involved in bioethics education of the commitments made in the Declarations adopted by all member states of UNESCO relating to bioethics education, specifically including:

Universal Declaration on the Human Genome and Human Rights (adopted by the UNESCO General Conference 1997 and endorsed by the UN General Assembly 1998)

"20. States should take appropriate measures to promote the principles set out in the Declaration, through education and relevant means, inter alia through the conduct of research and training in interdisciplinary fields and through the promotion of education in bioethics, at all levels, in particular for those responsible for science policies."

Universal Declaration on Bioethics and Human Rights (adopted by the UNESCO General Conference 2005)

"23. (i) In order to promote the principles set out in this Declaration and to achieve a better understanding of the ethical implications of scientific and technological developments, in particular in young people, States should endeavour to foster bioethics education and training at all levels as well as to encourage information and knowledge dissemination programmes about bioethics. (ii) States should encourage the participation of international and regional intergovernmental organizations and international, regional and national non-governmental organizations in this endeavour."

3. Goals

Research has shown that there are a number of **goals** of bioethics education including:

a) Knowledge

- Development of trans-disciplinary content knowledge
- Understanding the advanced biological concepts
- Being able to integrate the use of scientific knowledge, facts and ethical principles and argumentation in discussing cases involving moral dilemmas;
- Understanding the breadth of questions that are posed by advanced science and technology
- Knowledge of cultural values

b) Skills (capacity building in skill acquiring should be multi faceted or many sided, and the goals include)

- Balancing benefits and risks of Science and Technology
- Being able to undertake a risk/benefit analysis
- Develop critical thinking and decision making skills and reflective processes
- Develop creative thinking skills
- Develop foresight ability to evade possible risks of science and technology
- Skills for developing "informed choice"
- The required skills to detect bias in scientific method, interpretation and presentation of research results

c) Personal moral development

- Understanding better the diversity of views of different persons
- Increasing respect for all forms of life
- Elicit a sense of moral obligation and values including honesty and responsibility
- Being able to take different viewpoints to issues including both biocentric and ecocentric worldviews rather than only anthropocentric perspectives.
- Increasing respect for different people and culture, and their values
- Developing scientific attitudes, reflective processes, and an ability for holistic appraisal, while not ignoring the value for reductionist analysis.
- Knowledge about bias in the interpretation and presentation of research results, benefits and risks of technology and bioethical issues, and how to detect bias
- Exploration of morals/values (values clarification)
- Values analysis and value based utilization of our scarce natural resources

We note that many of these goals apply to ethics education and (education) development of critical thinking in general.

4. Implementation challenges

We applaud the efforts made by those involved in bioethics education to date, and UNESCO for convening this conference, as well as other meetings with the goal of building capacity in the region for teaching bioethics.

We call for increased support for implementation of all methods for bioethics education at all levels in culturally appropriate ways. Sound discussion of the underlying values and cultural factors in setting these targets is important.

We will work to overcome **obstacles** for implementing bioethics education by all available methods including:

- a) using objectiveness in evaluation,
- b) training more professionals (teachers, medical experts, philosophers, industrialists, engineers, managers, etc.),
- c) developing a wider range of appropriate support materials for different contexts/situations,
- d) increasing the time allocated to the teaching of bioethics,
- e) increasing the value or credit given to bioethics components of courses or bioethics courses,
- f) developing teaching and learning methods that encourage motivation to learn about bioethics,
- g) encouraging scientists to engage with bioethics,
- h) integrating all forms of ethics education into the core curriculum (mainstreaming).
- i) extending ethics consultation systems
- j) in all these aspects to conduct research that can find the best method to develop concrete mainstreaming of ethics into subunits and blocks into the curriculum.
- k) Fostering team spirit and healthy inter-personal relationship among team members and net working personals.
- l) Establishment of teaching resource and research centers open to all.

5. Targets

There are a variety of targets of bioethics education. We identified specific target groups for bioethics education, and conducted workshops on some of these. There were many overlapping needs, including groups such as

- a) The General Public (and cooperation with the public media).
Influencing the government to develop better policy in science and research, and update this to address social needs
- b) Educational institutions including: Primary schools, High School, and Universities
- c) Scientists and Graduate School
- d) Students in Health Sciences and Technology Professions, Basic Sciences, Social Sciences, Engineering, Economics, Management and other non-science majors
- e) Government officials and Ministers
- f) Media and journalists
- g) Legal profession, Economists and administrators

6. Curriculum development

Some general features need to be considered, although every culture needs to develop their own curriculum appropriate to their values and culture. Participants are ready to assist in the delivery of these goals.

Dedicated time for a bioethics curriculum needs to be integrated and administered.

Curriculum development workshops for in service and pre service teachers, and for all levels of education, primary secondary and tertiary, need to be organized, in the context of values education.

Development of integrated curricula across all levels of education that develop critical thinking skills and critical analysis.

Cross curriculum cooperation between different academic disciplines, and development of a Transdisciplinary curriculum..

Ongoing assessment of curriculum and continuing modification thereof.

7. Teaching materials

We call for all teaching materials to be made openly available for free download on the Internet. Production and sharing of free on-line **teaching materials** for bioethics education in different languages with a variety of cases from different cultures. Collection of multiple materials in multiple languages. Sharing of materials requires adequate dissemination plans.

Researchers and educators to work together across cultures to compile and produce materials which can be used at a variety of levels, including both school and college classes to teach about bioethics. We call for extension to existing compilations of materials, such as Macer, D.R.J., ed., *A Cross-Cultural Introduction to Bioethics* (2006).

Development and improvement of the teaching resources, such as Videos and DVDs. A repository of case reports by countries/regions needs to be established.

Introducing different cultural and religious practices in response to bioethical dilemmas.

Establishment of Bioethics Teaching and Learning Resource Centres.

8. Teaching methods

Providing different types of teaching methods and models for different target groups such as lectures, seminars, workshops, drama, narrative, role plays, case presentation and analysis, essay composition, small group discussion, on-line discussion forums, newsletters, public open discussion, media commentary and critiques, all have important roles uses in accomplishing the above goals.

Researchers and educators to work together to research into appropriate teaching methods for different target groups is urgently needed, to assess the effectiveness and impact (both positive and negative) of ethics education.

Generating sustainable ethics teaching and promotion programmes is a method in itself, required by education planners.

9. Evaluation

Developing evaluation methods for effectiveness of bioethics education is urgently required in many dimensions such as: knowledge, skills, and personal values.

There is a need for needs to be continued research on into appropriate assessment methods for the curriculum, as well as research into appropriate assessment methods for student learning outcomes, and research on appropriate assessment of practices including student, professional and public attitude towards bioethical issues.

Evaluation should be authentic, comparative and ongoing to give a better estimate of the way bioethics is received in each group.

10. Human capacity building

Appropriate teacher training is required. Raising the awareness within the science community of the importance of the “ethics of science”.

This could be achieved through various measures, including:

Compulsory ethics education events eg workshops, conferences at intervals to be determined

Refresher courses

Support from parent organizations/Government/agencies such as UNESCO

11. Networking

We will work towards expansion of the International Bioethics Education Network initiated in 2004, and also see the creation of networks linking research into policy as a cornerstone of efforts in all levels, from local to regional. Important points include:

- a) Establish and support network partners for the development of bioethics education. These partners can include many existing associations and could also lead to development of new forums, networks and associations where appropriate.
- b) The networks should develop research to influence at the policy level.
- c) Expand the existing regional networks for bioethics education, and improve methods, delivery and assessment for bioethics education.
- d) The network of teachers needs to be developed inside each country and between different countries.
- e) Networks can support teacher education (pre-service and in-service).
- f) Find more partner schools and universities to enhance capacity of effective bioethics education.
- g) Networks (including NGO's) can raise community awareness about bioethics.
- h) Gather more cross-cultural data to measure the effectiveness of bioethics education.
- i) Networks can provide workshops for Institutional Review Board (IRB) members.
- j) Through the networks, scientists will be informed about conferences to enable dialogue between scientists and bioethicists.

12. Recommendations

In addition to the above conclusions, we also address particular recommendations to the following groups.

Recommendations to researchers

To be involved in promoting bioethics education, and to develop methods to document this (such as check lists).

Continuous exploration of emerging ethical issues in science and technology (e.g, neuroscience, enhancement, biotechnology, nanotechnology, etc.)

Inclusive of cultural sensitivities in research

Bottom-up approach in research

Embrace hard-to-reach groups in research

To be fair in publicising research

To write papers to explain the needs given the situation in each country to various target audiences who need to understand the subject more in order to support methods for bioethics education. These groups include policy makers, media, university faculty, for example.

Take own initiatives to develop activities mentioned above (do not wait for the government or others to act)

Involve the media

Research how to communicate and how to make consensus between philosophers/ethicists and scientists?

Network with others to encourage sustainable activities

Recommendations to teachers

Action started from teachers themselves has been essential for development of the field, and will continue to be important for evolution of the subject

Not to discuss just "Ethics or "Science", but to integrate (ethics through science)

Avoid personalization in teaching ethics (personal agendas/values), rather empower students to make their own decisions.

Constructing a classroom atmosphere conducive to bioethics education

Recommendations to universities

To establish Bioethics Departments and Centres

To establish bioethics teaching and learning resources centres

To give adequate resources to support the activity of the centres

To establish and to provide sustainable support-courses for bioethics education in for teacher capacity building

Recommendations to governments

Governments should support these efforts by giving more priority to bioethics education.

To have greater interdepartmental dialogue between different ministries and departments

To embark upon capacity building for government members (bureaucrats and politicians)

To allocate time in the curriculum

Allocate funding mechanisms to achieve these goals over a long term period

Training of media, teachers and other groups

To establish and fund independent bodies (e.g. bioethics committees) that can engage with the community on bioethics.

To seek contributions to better understand that science's potential contributions cannot be randomly set in stone but require adaptive cooperation, intelligence, flexibility and a well developed sense of ethics.

Recommendations to UNESCO

In service teacher education

Training of media, teachers and other groups

Newsletter to exchange the information

Develop curriculum in Bioethics

Develop and share materials and case studies

Assist in networking and establishing documentation centres

Continuing to facilitate opportunities for cross-cultural dialogue, networking, research activities and sharing

Continue to advocate teaching of ethics for science and medical students

Lobby for the importance of this at governmental level (national commissions and intergovernmental organizations)

Strengthen the international bioethics education network, and assist in development of associations.