

Siri Martinsen, Veterinarian, Director of NOAH – for Animal Rights, Norway, and Representative, InterNICHE

Being the first veterinarian in Norway to complete my studies without animal experiments, I have experienced a process that I believe is the start of a new tradition within life science education: a tradition of respect for animals.

All over the world students work hard to promote alternatives to animal experiments and to be able to learn without compromising their ethics. Representatives of these students from 32 countries gathered at the 2nd InterNICHE Conference entitled “Alternatives in the Mainstream: Innovations in Life Science Education and Training” in Norway this year, together with teachers and researchers who shared their interest in creating a learning environment where the quality of education and ethical considerations are equally important. This conference was one of several recent events which prove that the time has come for humane education worldwide.

Alternatives create connections among cultures

The student panel at the InterNICHE conference showed the impact that the campaign for humane education has brought about in the last five years: students and professionals from Russia, Japan, Australia, Brazil, and Iran presented their experiences of successful campaigning. Biologist Thales Trèz from Brazil reported a significant increase in student awareness about the issue, and he has made several nationwide speaking tours.

Veterinary student Eriko Gotoh from Japan has co-organized speaking events at 16 veterinary universities and helped create student groups for the ethical treatment of animals in just two years. Currently, she is helping to set up a client donation program for ethically sourced animal cadavers. In Russia, change has come about even the last few months following an InterNICHE speaking tour that addressed over 500 teachers and students, resulting in agreements at two institutes to replace harmful animal use in education across a whole department and faculty.

At the time of my own graduation last summer, resulting in the Norwegian Veterinary School implementing a student choice policy and moving towards replacement of all animal experiments, colleagues in Romania were completing their veterinary course with substantial replacement of harmful animal use. Last fall, an InterNICHE /World Society for the Protection of Animals outreach tour succeeded in training nearly 500 teachers across India, again resulting in direct replacement. And the InterNICHE Humane Education Award has supported the development and implementation of freeware alternatives, bringing replacement in Romania, India, and elsewhere.

In short, the interest in humane education is growing rapidly and is not limited to only certain parts of the world. Indeed, countries where alternatives represent a relatively new issue are seen as making big steps forward in a very short time. Countries like Egypt, Syria, and Pakistan were represented at the InterNICHE Conference and had important contributions, and recently new InterNICHE connections have been made in ex-Soviet countries.

Alternatives creates connections among generations

Not only students initiate progressive change. Many teachers, who as students themselves did not complete their courses without the harmful use of animals and have started reflecting on the benefits—educational, ethical, and economic—of implementing alternatives. At the InterNICHE conference, Dr. Hans Braun from Germany described how his initial resistance towards student demands for change was transformed into a keen interest for developing alternatives when he realized the possibilities of modern technology in this field, as well as for scientific research. Dr. Amarendhra Kumar from Tufts University in Boston, Massachusetts, explained how he saw students develop more mature behavior towards animals in the veterinary course by using cadavers from the client donation program rather than purpose-killed dogs. Dr. Marc Bekoff shared his experiences as a researcher and teacher in ethology, and made a strong case for non-invasive field studies, including their advantages for gaining new knowledge. Producers of advanced virtual reality (VR) tools for education, such as the ovary palpation simulator from Glasgow University in Scotland and the Norwegian SimSurgery model for surgery training, presented exciting new possibilities that may transform the educational experience completely.

Likewise, the book *from Guinea Pig to Computer Mouse* (InterNICHE 2003), co-sponsored by Animalearn, presents practical case studies by teachers from across the world. Humane education is a platform where generations can meet to discuss and create an ethical and effective learning environment.

Different opportunities in different parts of the world

Campaigning for humane education worldwide shows that there are always possibilities for change, even though the difficulties met may not be expected. A group of students at the Veterinary University of Copenhagen, Denmark, is currently making progress towards a student's right to object to animal experiments. However, in the neighboring country Sweden, such rights have been in existence for many years. Pharmacology student Sepher Shafiezadeh, from Iran, has also recently managed to convince his teachers to use several alternatives, the same alternatives that my physiology teachers in Norway were reluctant to even review. Resistance from the establishment can sometimes be harder in western countries, which we imagine might be more open-minded to the critical thinking of their students, than in countries where the virtue of free speech is not thoroughly established.

Western students may have the right to protest and, indeed, some have taken their university to court, for example in the U.S. and Germany. Students in Eastern European and ex-Soviet countries, however, may have the advantage of presenting the alternatives as the technological innovations and tools of modernization that they actually are. Teachers in some western countries may, according to my own experience, be less willing to change their habits and approach modern learning tools with the interest seen in countries with fewer financial means. Availability of cost-price alternatives such as the InterNICHE supported freeware may be enough to bring about replacement, as Dr. Ramasamy Raveendran from India explains concerning the ongoing replacement in his country: "If you give an alternative to a university, they will use it."

Resources make change possible

Worldwide change from harmful animal use to humane education is often dependent on the availability of resources. Bearing this in mind, InterNICHE has put substantial effort into creating new and often multi-language resources. The Humane Education Award has also targeted areas where language is an obstacle to implementing alternatives, and supported projects that make translated or locally developed alternatives available.

The concept of “reusable learning objects,” as presented by Dr. David Dewhurst at the 5th World Congress on Animal Use and Alternatives last year, is another way to support the development of alternatives by sharing elements of computer programs. The distribution of secondhand computers may also support rapid implementation, supported by global databases on alternatives for effective information retrieval.

Libraries of alternatives, or ‘loan systems,’ also play a major role, as they enable student groups and animal welfare groups to present a range of alternatives directly to students and teachers a range of alternatives that they could otherwise not afford. The InterNICHE Loan System, for example, enables items to be used in Japan one week, and the U.S. the next; and after lending Critical Care Jerry mannikin to the University of Florida, the veterinary college bought five.

Replacement, not only technology

Even if technology-based alternatives have certainly helped bring about change, it is also important to realize that sometimes just a different approach is needed to create a fully humane learning environment. Dr. Garry Scroop from Australia brought about change in his physiology classes simply by emphasizing critical thinking and problem-solving. This made him create animal-free physiology classes where the students used themselves as the experimental tool, a method identified as best teaching practice by the Higher Education Council of Australia. Another example of change comprising approach rather than technological tool is the teaching of Dr. M. A. Akbarsha in India, who also presented at the InterNICHE Conference. Dr. Akbarsha emphasized the importance of modernizing biology, creating more focus on cell biology, genetics, and conservation biology and, thereby making dissections irrelevant.

Different interests, same goal

The campaign for humane education is an area of intersection among a range of different interests. Perhaps this is one explanation for the success this campaign has had in different countries and cultures. Humane education is about modernizing education by optimizing learning tools and keeping education on the cutting-edge of technological development. This attracts teachers interested in technology, computer specialists, and others to the issue. Humane education is also about creating an environment where students can focus on the learning rather than fighting for their beliefs, and so it attracts teachers who are committed to their role as educators. Of course humane education is also about human rights, or the right to freedom of conscience. Finally, humane education is about respecting animals’ lives, an issue that is becoming important to an increasing

number of professionals, as well as the general public. It also binds together a wide variety of different people with different backgrounds and cultures, and the quality of this campaign was very much reflected in the InterNICHE conference through the philosophers, computer scientists, animal rights activists, students, teachers, and producers of alternatives from all parts of the world who were united for a common cause: the creation of a generation of biologists, veterinarians, and doctors worldwide who are devoted to their profession and grounded on a basis of respect for living beings, human and animals alike.