Transhumanism becomes a significant force

RECOMMENDED RESEARCH

THEMATIC AREA
Social sciences and humanities (SSH), health, ICT, nanotechnology and security.

RESEARCH TOPIC
Ethics of human technological enhancement. Human technological enhancement (HTE) is a fast moving trend and which promises much, but which has important ethical considerations that need to be assessed for the successful furthering of this endeavour. Current examples of HTE are bionic limbs used by amputees, and implantable microchips used for ID and tracking purposes and in experimental procedures to restore eyesight and hearing. Ongoing developments within the field of human enhancement also include cosmetic surgery and lifestyle drugs.

OBJECTIVE
Research should pinpoint and assess the strategic implications of human technological enhancement, i.e. what impact these activities will have on people's lives (e.g. health benefits/detriments), contemporary society (e.g. new inequalities) and culture (new ideologies and attitudes to the body and mind), and business ventures (e.g. IPR). Research could further identify political and media discourses surrounding human enhancement in order to understand the development of debates around the issue. Research should take into account basic philosophical questions such as, 'what makes us human' and examine the changing boundaries between humanity and technology.

The emergence of movements that support and oppose various forms of human enhancement is another central research theme.

EXPECTED IMPACT
The research will a) increase awareness of ethical dimensions of human technological enhancement; b) devise strategies for appropriate policy responses across EU; c) inform common legislation and regulation across EU; d) inform business enterprise and innovation in this field; e) inform educational and health strategies on the subject of human enhancement; f) inform the general public about a spectrum of developments that are liable to profoundly shape culture and society in coming decades (even without a strong transhumanist movement).

IMPORTANCE FOR EUROPE
Human technological enhancement is a growing field and one that can potentially have enormous effects on contemporary society. It is vital that policy response which would aim to shape and regulate this industry is informed by research that could guide member states in forming their legislation and listening to emerging voices and opinions.

Human enhancement techniques are developing rapidly. This wildcard explores the notion that Transhumanism (promotion of technology enhanced humans) becomes a significant force in society rather than a fringe phenomenon. The wildcard assumes that relevant technologies will be widely available and welcomed.

Wild Card

FP7 Themes

ERA Goals

Manifestation	Gradual development
Importance	★★★★
Likelihood	★★★ by 2030 ★★★★ by 2050
Impact on EU	Uncertain (possibly negative)
Inspired by	Brainstorming session and group discussions in the iKNOW Workshop in Manchester (February 2010)
Key words	Human, enhancement, transhumanism, technology, ethics, convergence, inequality

Potential impacts in Europe	
Infrastructures	★★★
People's Lives	★★★★★
Legislation & Regulation	★★★★
Economy & Business	★★★
Defence & Security	★★★★
Government & Politics	★★★
Environment & Ecosystems	★
Science & Technology	★★★★

Low ★ Medium ★★ High ★★★ Very high ★★★★

Surprises ('wild' scenario features)

The wild factor here is that commonplace assumptions about boundaries that have been drawn between humans and technology are substantially undermined. This means a process of redefining human identity, i.e. what makes us distinctively human, what we value about this, and rethinking expectations about human capabilities. The possibility of human enhancement here gives rise to large strident social movements who welcome increased efforts to augment human minds and bodies. Some relevant technologies may be cheap – "smart drugs" and the like. Some may be relatively expensive – prosthetics (and human-computer interfaces), gene therapy, etc. There may be new divides opened up, with new elites who live longer, are healthier, more intelligent and "beautiful", and who (having selected the most promising foetuses) have their children further enhanced to ensure they have the best start in life. People who cannot afford or do not accept biological and transhuman manipulation will 'lose out' on jobs, partners and income. Ideologies that justify or challenge these new social gaps may take bizarre forms, since traditional Darwinist and racist arguments do not fit the new scenario. Furthermore, transhumanists now tend to be libertarians. Finally, there could be distinct subcultures stressing specific aspects of enhancement – cosmetic appearance, sporting prowess, intellectual abilities, even emotional features of personality. There are historical experiences of people hoping that their child would be the "chosen one": now they may have a chance to design such a child!

Possible interpretations

Some possible interpretations of this wild card focus on how people will no longer accept the inherent limitations of being "just human". The human body is as open to technological manipulation as anything else: valued features can be enhanced, deficiencies reduced or even eliminated. Why not use modern knowledge to become the best you can be (however that is defined)? Population ageing may be a driver here: people no longer want to become old but want to remain capable as long as possible. More general shifts in values towards self actualisation and social recognition may also shape the degree and direction of interest in enhancement.

Key actors

Key actors related to this wild card, include:

- **Scanners or "early warners"** such as educators, scientists, health professionals, governments and regulators, as well as defence and security actors (including private security contractors) are monitoring potential opportunities and threats of transhumanism.

- **Shapers** (i.e. enablers/inhibitors) such as the World Transhumanist Association, Humanity+, the Mormon Transhumanist Association and similar groups are among the promoters of the development of the "transhuman movement". Among the inhibitors we can find the Catholic Church and bio-ethical committees and regulators, for example

- **Stakeholders** positively or negatively impacted such as private medical, cosmetic and pharmaceutical companies, entertainment and sporting organisations. Religious bodies would have varying views on specific instances of enhancement, and would in general be likely to strongly oppose full-blown Transhumanist ideologies.

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Potential impacts

Potential impacts of Transhumanism becoming a significant force would be varied, but could include changes in most areas of society. Ethical dimensions would have to be redefined and new boundaries drawn. New and different social inequalities might become rigid sources of social fragmentation and conflict. At the workplace, demands to work longer hours (and even to undertake some enhancements) might be likely. One potential positive impact of this would be cuts in healthcare spending, for example as some sorts of disability are eliminated (though other costs might rise). The implications of extended longevity and active old age are profound and poorly understood: we might expect significant changes in values and social norms.

Potential actions

Were Transhumanism to become a significant force in Europe it is clear that there would be a need to negotiate new rules and compromises. Education would have to be adjusted to teach ethics and respect for transhumans. Regulation of all transhuman projects would have to be strictly adhered to and common rules agreed across the EU states.

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Policy actions

Early actions: Policy makers should regulate, examine appropriateness and agree on common rules and standards across EU for areas such as gene therapy, embryo selection, smart drugs and microelectronic implants. The rules would need to encompass consumer protection, business liability, quality of life and human rights. Policy should aim to protect workers' rights (e.g. to ensure that transhumans are not given preferential treatment). Education and sports organisations need to be proactive in developing policies – and to be more open-minded in their attitudes to performance enhancement.

Early reactions: Policy makers would need to respond swiftly to technological developments and to possible changes in our understanding of Human Rights. There may be a need to make sure that Transhuman Rights are respected. Policy makers should regulate the workplace in order to make sure they are still humane places to work in, e.g. trends in working hours and mental and physical effort.

Business actions

Early actions: Transhumanism would present many opportunities for business ventures. Businesses would have to agree on quality control and to discourage cheap and unreliable imports (or transhuman tourism growing in the way that cosmetic and medical tourism have in recent years). IPR would need to be protected and legal liabilities would need to be clarified. Lawyers may see many opportunities here.

Early reactions: Businesses would have to increase their concerns for social responsibility and make sure that "non-enhanced" workers are not discriminated against in the workplace. An important question would be whether (or when) businesses can insist on transhuman workers for specific jobs?

Research actions

Early actions: Mass media and political discourse analysis, together with more conventional social research, to assess people's views on Transhumanist ideas and practices. Research would have to explore social and ethical implications of transhumanism, especially in terms of implications for human identity, and might extend into action research (consensus conferences, etc.). Research would also need to focus on the social control of converging technologies. Finally, it would be important to explore "vanguard groups" and practices, and identify how some activities have moved into the mainstream, with what effect.

Early reactions: Again, social and cultural dimensions would need to be explored in research. Educational research would need to be carried out to determine what effect enhancement would have on educational results and qualifications. Research would need to go back to tackling fundamental questions concerning human identity: What are the key elements of being human? What needs to be preserved, and what could be changed?