

## Chapter 37

# Identity in a Technological Society: Governance Implications

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### ABSTRACT

*This chapter provides a framework for the Technoself that distinguishes six different processes by which emerging technologies may affect human identity. From a public policy perspective, one of these processes, the radical physical alteration of human bodies, is of prime interest. The authors discuss various technological approaches – the alterations of genes, brains, and bodies - in relation to human identity and argue for the need for a governance dialogue over their social implications. We situate these developments in the policy context and develop the governance case for communication, adaptive regulation, and societal preparedness as means to regain control of our Technoselves.*

### INTRODUCTION

Transhumanism – the prospect of radically enhancing human capabilities through scientific and technical means – is receiving ever more attention in academic and popular media (see Agar, 2007; Allhof, Lin & Steinberg, 2011; Daly, 2004; Lin & Allhof 2008). A great deal of the discussion surrounding Transhumanism concerns the long-term prospects of human enhancement through genetic

engineering, machine-brain implants, life extension and even downloading one's consciousness into a computer. While it is important to consider the ethical implications of possible future enhancement technologies, there is also a need to discuss the more immediate policy issues surrounding existing human enhancement technologies, which (some would argue) are humanity's first steps towards creating more radical enhancements and even achieving a 'Transhuman' status. In this

paper, we examine the policy implications of currently available technologies on the Technoself, the changing notion of human identity in a society resulting from the adoption of new technologies.

As any other topic of public concern, human enhancement is a public policy issue. While we agree with most commentators that the path of technological innovation – and in particular the complex societal feedback loops that result from the adaptation to products of new technologies – can neither be perfectly predicted nor controlled, we argue for a public policy discussion encompassing three specific governance measures because the stakes are so very high, and because some useful forecasting and planning is possible. We make the case that the implementation of good governance—including strategic direction setting and planning, transparency and accountability (Graham, Amos & Plumptre, 2003) – must start now, despite the fact that the technological tools for human enhancement are constantly changing. The measures we propose are sufficiently broad and flexible to successfully accompany a process that is neither perfectly foreseeable nor perfectly controllable. In addition to being morally warranted, this dialogue is required to prevent public opinion from vacillating between, on the one hand, strong pushes to ameliorate some aspect of the human condition through enhancement technologies and, on the other hand, equally strong pushes for moratoria based on the logic of precaution, to keep some aspect of human identity stable (see Buchanan, 2009; DeGrazia, 2005; and Hassoun, 2008, for discussions of the claim that radical human enhancement alters human identity or human nature in a morally problematic way).

Radical human enhancement is by definition *teleologically open* in a way that other public policy issues are not. Policy debates are based on the assumption that the actors are at least partially constrained by their nature, although there is a debate over which version of the “state of nature” (for example the conceptions of Hobbes vs. Rousseau) is correct and how this information should

be used. Radical human enhancement offers the prospect of removing these natural constraints. Consequently, the design of the actors *is* the public policy issue and a policy goal-in-itself. This unprecedented freedom, we believe, raises the stakes. We further believe that once human enhancement will be internationally available and affordable, it will also be practically irreversible. Just as it is impossible to manage illicit drugs out of existence, the tools for human enhancement are here to stay. Thus, the governance dialogue is both important and urgent.

In Section 1 of this paper, we define some of the key concepts pertinent to our discussion and provide a broad overarching framework for the Technoself at large. In Section 2, we focus on the question of human enhancement – namely with respect to genes, brains and bodies – and frame the relevant public policy issues by describing a few selected technological developments in their current state and their trajectories as they relate to the concept of identity. In the final Section 3, we relate these developments to governance and develop the governance case for communication, adaptive regulation and societal preparedness and present a visual model for regaining control of our Technoselves.

## **SECTION 1: A FRAMEWORK FOR THE TECHNOSELF**

The subject matter covered in this paper is semantically complex and vague. Key terms such as “Technoself,” “Transhumanism” and “human enhancement” are novel, abstract, often loosely defined and sometimes value-laden (as in, for example, the case of ‘human enhancement’, where the term suggests something over and above what we all strive for every day and hence, morally suspect). In this section, we will touch briefly on the epistemological challenge of describing a “self” and provide a terminology that works well in a public policy context. We then describe, again

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