

Year 2000: The Present Future

Virtually no part of our individual and collective lives is untouched by the genetic revolution of the 21st century: The food we eat, the way we have our babies, the way we cure our ills, the way our children are raised and educated, the way we work, the way we engage in politics, the way we express our faith and the way we perceive the world around us and our place in it.



Without a partnership of “experts” and citizens to help shape the development of genetic policy in the direction of “public interest,” decisions about the application of genome research in the 21st century will remain largely in the hands of profit-maximizing corporate interests. Accordingly, genetic technological development will continue to follow markets, concentrate wealth, and distribute poverty and neglect. Technologies to date have been used not so much to benefit humanity but to mine it for profits.

Unless certain “checks” are put in place, large corporate interests will continue to underwrite nearly every aspect of scientific production and determine what policy should guide research. Only the wealthy elite will have access to new genetic technologies, while a growing underclass will have even less access to health care and remain vulnerable to the excesses of the insurance and criminal justice systems.

Because citizens are currently uninformed (and therefore fearful and passive), they lack the incentive to participate. As a consequence, technological development will continue to follow paths determined by profit motives. Scientists can’t be counted on to intervene or provide the ethical “brakes” on the technologies they develop because they feel it’s not their responsibility or their province to affect or effect public policy. “Leave that to the experts,” is the scientists’ familiar rejoinder to the call for them to consider the social and ethical implications of their work.

Scientific “experts” restrict their field of attention as a matter of method and habit of thought. Society helps to correct this narrowness when informed, but not necessarily expert, people ask fundamental questions about science that reconnect science to society.

Year 2250: The Future Ahead

Building on the natural tendency to assert ownership of things, future humans will use the ample intellectual property laws to protect family-specific genetic identities. As a result, “family values” takes on new meaning and inheritance becomes of critical importance as families develop and cultivate unique gene lines that are guarded as family secrets.

A major shift in the political system from the individual to the family will occur, with representative democracies being tailored to serve the powerful and elite families.

Wars will be feudal in nature and different geographical regions of the world will begin to operate more like monarchies. An underclass will remain vulnerable to the excesses of the reigning genetic dynasties.

Scientific racism, the attempt to use DNA and genetic markers to widen the social cracks between people, will lead to bias and injustice. In the effort to create a master race of perfect people, “impediments” will be edited out leading to a reduction in human diversity.

The genetic aristocracy of the “GenRich” will struggle to maintain control over the “Natural” human composition.

Year 3000: The Utopian Future

In the aftermath of a global revolution between the “GenRich” aristocracies and outraged and highly motivated “Naturals,” equal parity in a social environment of “genetic liberalism” has become the means for shaping genetic policies designed to control technologies with the potential to alter the biological heritage of the human race, indeed, of the entire biosphere.

In this social infrastructure, the rich and the poor citizens, as well as the privileged and the disadvantaged ones, will have equal access to genes for personal enhancement (e.g., musical ability, financial acuity, and increased IQ). In order to ensure that personal genetic choices will not adversely affect social stability, genes for socially useful attributes (e.g., altruism) will be bundled together with genes of personal choice. Citizens will be limited to receiving only certain genetic combinations through a process of regulation by a beneficent government of democratically elected legislators. In this future world, democracy would become borne of necessity rather than merely a Utopian vision.

Human diversity will remain unchanged since the possibility of creating discrete gene pools in families will be mitigated by the fact that normal sexual behaviors will be unaffected.

Widespread participation could correct for myopia of scientists and technological entrepreneurs. People driven by motives other than profit may raise diverse issues that allow for decisions based on a better understanding of the benefits and hazards of genetic knowledge and applications.

World citizens may then come to understand the efficacy of interdependence as a mandate of biological survival, not merely the aspiration of idealists.

As the human genome comes to be seen as the origin of our common humanity, future citizens may see the world as common ground, and that all people share the common destiny. This should lead to the widespread realization that there can be no prosperity, freedom and security while others live in poverty, insecurity and bondage.

Given this scenario, we can take heart in the confidence that future humans will accept the lessons of democracy and interdependence and work to become truly informed, engaged and participatory citizens.

Their vision of the future will become one where genetic science benefits humankind without compromising individual liberties or discriminating against groups of people.

In a future which evolves along these lines, polities will have a clear vested interest in the genetic policy decisions that affect their survival, the legacy they leave to their children...their very essence.

And better-balanced policy, which reflects broad public good will be formulated as a consequence