

Humaneering

Humaneering is an emerging applied science with the goal of maximizing the actualization and achievement of individuals, groups, organizations, institutions, and other complex systems dependent on human effectiveness. Humaneering combines, synthesizes and field tests knowledge drawn from more than 100 science disciplines, including many of the disciplines of biology, psychology, sociology and philosophy, other relevant disciplines (e.g., complex adaptive systems, behavioral economics, and operations management), plus new knowledge arising from humaneering field experiments and problem-solving applications.

The initial focus for humaneering has been the development of both diagnostic and prescriptive protocol for the optimal design and management of human work, with emphasis on “knowledge work” (i.e., work that is dependent on human capabilities such as expertise, empathy, commitment, creativity, initiative, and other voluntary self-directed human behaviors)¹. Application results include (a) operational and financial improvement, (b) higher utilization of human potential, (c) combined increases of employee productivity and job satisfaction, (d) resolution of longstanding workforce management challenges, and (e) reduced time and effort required for day-to-day managing.

Humaneering was first conceived in the late 1930's by Purdue University industrial psychologist Joseph Tiffin²³⁴ as a means to advance society's understanding of human nature so as to (a) better fit people in roles for which they are inherently capable and (b) make social institutions and their practices better suited to human nature and needs of people. Tiffin envisioned humaneering as the integrated application of the human sciences, and anticipated that it would yield great advances in society, just as engineering's integrated application of the physical sciences had done in the prior century.

Dr. Tiffin explains in *The Psychology of Normal People* (1940) that the understanding most people have of human nature is "naïve" (p. 26). He says this naive understanding has value, but generally lacks scientific quality in five important ways: (1) is replete with hasty generalizations; (2) is disorganized; (3) is comprised of mostly imprecise terminology; (4) lacks effective methodology for problem solving, and (5) doesn't challenge the problems it creates. He concludes that people lacking more accurate knowledge of human nature routinely make decisions that are substantially sub-optimal.

¹ Pepitone, J. S. (2002, May). A case for humaneering. *IIE Solutions*, 39-44.

² Tiffin, Joseph et al. (1940). *The psychology of normal people*, pp. 23-24. D. C. Heath and Company, Boston. ISBN 24524712-1

³ <http://www.humaneeringinstitute.org/tiffin.html>

⁴ <http://www.sio.org/presidents/tiffin.aspx>

Humaneering brings increased rigor and reliability to complex systems dependent on human nature (e.g., individuals, work, and enterprise) in much the same way engineering brings increased rigor and reliability to complex systems dependent on physical nature (e.g., roads, buildings and machines).

Furthermore, humaneering is a helpful complement to engineering, especially in the practice of engineering and the operation of engineered systems that require people in vital roles (e.g., demand development, service delivery, and response ability). Engineering is based primarily on the physical sciences of physics and chemistry. Engineering's sub-disciplines of human factors, usability design, and ergonomics focus primarily on the physiological aspects of people so as to enhance the operation of equipment and prevent human error. Neither engineering's body of knowledge nor its objective and practice compete with humaneering's emphasis on actualizing and utilizing the full potential inherent in people. Moreover, it is easily demonstrated that the personal performance of engineers (i.e., their actualization and achievement) in their practice of engineering is substantively improved by humaneering.

The development of humaneering has been driven primarily by practitioner-scholars, yet ultimately created by a virtual community of volunteer scholars, managers and practitioners from all regions of the world. The nonprofit Humaneering Institute (<http://www.HumaneeringInstitute.org>) recently completed a 10-year development research initiative resulting in the latest version (3.0) of "humaneering protocol" for the design and management of human work, which is now in open beta. The Institute's technology transfer function is outsourced to DesignedWORK (<http://www.DesignedWORK.com>), a U.S.-based consultancy.

Humaneering is free, yet to preserve open access (i.e., to prevent process patents or other intellectual property claims) its body of knowledge is presently treated as a trade secret and transferred for commercial application subject to mutual non-disclosure agreement. One-time transfer and application expenses are involved, yet these are typically mitigated with a complementary agreement to allow the Humaneering Institute to collect data from its application.