

Robotic automatons, artificial intelligence and essential rights

Abstract

Advances in medicine, biotechnological inventions, cybernetic, cellular and genetic experimentation and the substitution of certain human functions through robotics arouse in man hope to heal diseases and increase the length of life; at the same time, care about how many come through the application of research results the risk of transforming the body into a component assembly substitutable. Hence, the need to identify new ethical and legal rules to protect biomedical research and align the contexts to parameters that are not harmful to the integrity and dignity of the human individual.

Keywords: biotechnology; scientific research; cybernetic experimentation; artificial intelligence; essential rights.

1. Biotechnological knowledge and scientific research: nanotechnology; nanomedicine; neuroethics; roboethics

Today, the technology applied to the living world has taught us that, compared to the past, man can do "something new": means perpetuating the life with organs and portions of artificial organs or sometimes even clone her (Putti, 2014).

Integral systems current, therefore, biotechnology has assumed a fundamental role so much to affect not only human life, but even the lexicon of communicative relations.

The new knowledge, in fact, are implementing increasingly headwords and keywords: we talk about nanotechnology, nanomedicine, neuroethics, roboethics, bionics, cybernetic intelligence, artificial intelligence, and more.

In the frenetic succession of biotechnological knowledge and of activity of the scientific research, nanotechnology, or technology of super-small, combining applied sciences and modern technologies, is experimenting with the control of living matter, the his manipulation at the level of atoms and molecules, dimensional scale below the micrometer (between one and one hundred nanometers), and the design and construction of biomedical devices within this scale (Parente, 2018, p. 69).

The integrated research in nanotechnology and medicine has already led to the birth of nanomedicine, which deals with the biological machine operating lines within cells and uses the information to “engineer” nano-materials and biosensors, to develop increasingly sophisticated medical treatments (Gammella, 2013).

In the biomedical experimentation, a significant example of this development is given by the use of nano-particles or nano-bots to perform treatments and repairs at cellular and molecular level or to transport drugs, heat or other substances to the cells other specific types of cancer cells, allowing an early diagnosis of the disease or a direct treatment of diseased cells and reducing the damage to healthy cells (Gammella, 2013).

In the world of global research, in turn, the neuroethics (the term neuroethics was used for the first time in 2002, during the Conference “Neuroethics: Mapping the Field”) identified two different fields of research: “the ethics of neuroscience”, which deals with the ethical profile of the design and execution of neurosciences and studies of the ethical and social impact assessment of their results; “the neuroscience of ethics”, which, through scientific studies and neuroscientific approaches on the brain tends to investigate traditional issues of ethics and moral psychology.

According to the new statements of knowledge and research, robotics, which branch of engineering (robotics is a branch of engineering, more precisely of mechatronics, where segments of many disciplines, both humanities, such as linguistics, both scientific and, like biology, physiology, psychology, automation, electronics, physics, computer science, mathematics and mechanics), in order to implement the global instances of technological innovation, has developed methods that make a robot-car of anthropomorphic form-to perform specific tasks, reproducing the human work.

Finally, under the urging of scientific renovation, roboethics is experimenting with ethics applied to robotics, namely human ethics – and not robots – that design, build and use robots.

2. The relevance of the phenomenon of post-humanity and urgency of redesigning the ethical and legal rules.

Following the new development models, they do feel the urgency of redesigning the ethical and legal rules, even the bionics (bionic word, as a rule, is used to denote the branch of biomedical engineering that apply cybernetics to reproduction of the functions of living organisms described by physiology, neurophysiology and electrophysiology to create artificial organs that are part of the nervous system or controlled by it) – known as biomimicry, biological camouflage or biognosi – refashioning the structure and functions of living organisms in order to draw useful elements to create automata, automatic devices, or other apparatus technology, through the application of methods and biological parameters – namely, found in nature – the study and design of engineering systems of modern technology; while the cybernetics (cybernetics was coined in 1947 by the american mathematician Norbert Wiener to describe the study of communication and control processes in the BIOS and in the machine) deepening the study of the phenomena of self-regulation and communication in living organisms, natural and artificial devices in other bodies, thought of an analogy between the different strategies of adjustment.

In light of this insight, scholars of cybernetics compare daily adjustment processes of man, animal, and machine to create mechanical devices (known as automata), with characters of stability, adaptation and learning similar to those of the living being.

In a context characterized by the complexity and sometimes from lack of sources, then, the legal significance of post-humanity concerns situations in which “artificial surrogates” of man, that is natural, not abstractly due to “things”, that is to say legal interests (article 810 civil code), are inspired by the human individuality and tend to develop similar to it (Stanzione, 2012, p. 3).

3. Artificial intelligence and development of systems cybernetichs and cyberfisichs

In the age of artificial intelligence and cognitive systems – representing the digital dimensions of life –, the evolution of the borders of processing big data reveals more and more that the research pushes the boundaries of science and technology to create machines capable of thinking and interacting with man in

the various fields of research, in new ways: the development of learning systems; the design of cognitive cities; computational physics; nuclear medicine; computed tomography; magnetic resonance imaging.

In the latter context, in particular, new sophisticated machines are able to assist the practitioner in identifying clues of diseases in the human body, facilitating the identification and treatment of any disease (Kelly – Hamm, 2016).

The European Parliament is aware of the growth potential of cyberfisich systems, on 16 February 2017, adopted a resolution with recommendations to the Commission for the development of standards of civil law on robotics (European Parliament resolution of 16 February 2017, with recommendations to the Commission concerning the civil law rules on robotics [2015/2103 procedure (INL)]. *www.europarl.europa.eu/sides*, p. 1-14).

Indeed, the increasing interaction between man, robot, bot, the android and the humanoid and sophisticated and intelligent machines, capable of independent learning (self-learning) and independent decisions, make it increasingly impelling the legal regulation of various social and economic manifestations of artificial intelligence and perhaps the development of an electronic legal status and a personality of the robot (European Parliament resolution of 16 February 2017, cit, p. 1-3; in favour of the recognition of a “legal status” and an “electronic tv personality robots who take decisions independently or interact with third parties”, comp. Iaselli 2017, p. 1 ff.; Magni 2017, p. 2).

Actually, the robot or android, though it may be a highly sophisticated thinking machine, cannot be approved to humans, given that, in processing the thought, following “logical paths etched in the positronic brain according to a street still outlined by others (who planned or who gave the order)” (Iaselli, 2017, p. 7).

In other words, any thinking machine, however clever, can not be considered a person, but always remains an artifact mechanical and electronic, because it lacks of free will, that is, the process of education of “underwear will”, that freedom of choice – marked by unpredictability and originality – that is typical and exclusive of man and which goes beyond the mere reproduction of the human “logical paths” (Iaselli, 2017, p. 7-8).

Therefore, despite the visual biotechnological and post-modern, the person cybernetich or the electronics person or the thinking robots cannot be ethically assimilated to man, nor, in point of law, may be held liable as human beings (Iaselli, 2017, p. 7-8).

4. The body show the ways and new legal forms of protection of the essential rights of man

In the face of change and emergence of new biotech legal forms of protection of the rights of man, the identification of advanced research tools that affect the existence of the person (Perlingieri, 2009, p. 131 ff.; Parente, 2012, p. 53; Pizzorusso, 1988, p. 111-112), preimplantation genetic investigations (Nardocci, 2016, p. 99 ff.; Iadicicco, 2015, p. 325 ff.; Pellizzone, 2016, p. 121 ff.; Liberali, 2014, p. 1 ff.; Scia, 2012, p. 9 ff.; in case law, among other decisions, see Constitutional Court 5 june 2015, n. 96. *www.cortecostituzionale.it*; Constitutional Court 11 november 2015, n. 229. *www.cortecostituzionale.it*; European European Court of Human Rights, 28 august 2012, n. 54270/10. *www.altalex.com*), robotization of the human, the post mechanical humanism (Stanzione, 2012, p. 5 ff.; Perlingieri C., 2015, p. 1239 ff.), studies to produce in the laboratory synthetic genome of man are current issues involving much biomedical research (on the matter, comp. Magni, 2012) and neuroscience, as robotics (Robotics, in <https://it.m.wikipedia.org>), bio-ethics and the biolaw. Despite these new scenarios, the body show the ways and the unity of knowledge (Rodotà, 2007, p. 477) cannot escape a renewed vision of the person (Perlingieri, 2006, p. 730), built on the fundamental principles of sorting (articles 2 ff. of Constitution), on the right to life and dignity, on solidarity, on the incommerciabilità of body parts (Rodotà, 2007, p. 478) on the development of the bionics (Bionics, in <https://it.m.wikipedia.org>; on the verge, v. sub § 2) and cybernetics intelligence (Cybernetics, in www.treccani.it/enciclopedia; on this point, v. sub § 2) and on the idea of post-humanity (Stanzione, 2012, p. 3), concerning the phenomenon of the emergence – in the scientific community, in the social and legal order – of “artificial surrogate² of person and require “careful reconsider of the comparison between law and human nature, between ius and individual” (Stanzione, 2012, p. 3).

Tracing lets you confirm that, in the intense debate on the relationship between traditional legal categories (on the legal categories, such as classification parameters of phenomenal reality, comp. Pennasilico 2016, p. 1246 ff.; Minervini 2015, p. 712 ff.; Parente 2015, p. 330; Lipari 2013, p. 11-12; Perlingieri 2005, p. 543 ff.) and future prospects of protection of persons, each individual human being continues to play a central role in the assiologie of the regulatory system (the centrality of the human person is acquired in modern philosophical inquiry (Scarpelli, 2017, p. 6), in modern legal science (Lipari, 2013, p. 11-12; Perlingieri,

2006, p. 717) and positive law: for example, the french code civil, resuming a formula exists in the law Veil (law 17 january 1975, n. 75-17), codifies the primacy of the person and protection of the human being from the beginning of life (article 16); the peruvian civil code assigns centrality to person, giving even the designed capacity of sujeto de derecho).

Finally, in the overcoming of the paradigms of subjectivity, abstract the new frontiers of scientific knowledge and biotechnology raise legal issues in the past and launch the daring and reckless challenges jurist, which, however, are a limit worth of the human person and in the category of dignity, which remain the “garrison fort” the naturalness of the processes of human life (D’Addino Serravalle, 2003, p. 30 ff.; Stanzione, 2012, p. 2 ff.).

References

- D’Addino Serravalle, P. (2003). *Questioni biotecnologiche e soluzioni normative*, Napoli: Esi.
- Gammella, E. (2013). *Nanotecnologia e medicina: nuove applicazioni per terapie che si attivano nel momento del bisogno. E non si vedono.* www3.varesenews.it.
- Iadicco, M. P. (2015). *La diagnosi genetica preimpianto nella giurisprudenza italiana ed europea. L’insufficienza del dialogo tra le Corti.* *Quad. cost.*, ff. 325.
- Iaselli, M. (2017). *Robot con intelligenza artificiale, verso una soggettività giuridica?*. www.altalex.com/documents/news/2017/02/21, ff. 1.
- Kelly, J.E. – Hamm, S. (2016). *Macchine intelligenti. Watson e l’era del cognitive computing*, Milano: Egea.
- Liberali, B. (2014). *La diagnosi genetica reimpianto fra interpretazioni costituzionalmente conformi, disapplicazione della legge n. 40 del 2004, diretta esecuzione delle decisioni della Corte europea dei diritti dell’uomo e questioni di legittimità costituzionale.* *Riv. Aic*, ff. 1.
- Lipari, N. (2013). *Le categorie del diritto civile*, Milano: Giuffrè.
- Longo, G.O. (15 luglio 2018). *Macchine intelligenti e umani resistenti.* *Avvenire*, p. 23.
- Magni, A. (2012). *Riservatezza e autodeterminazione nella partecipazione alla ricerca scientifica.* Napoli: Esi.
- Magni, A. (2017). *Robot e intelligenza artificiale, i deputati Ue chiedono norme europee.* <http://mobile.ilsole24ore.com/solemobile/main/art/tecnologie/2017-02-17>, p. 2.

- Minervini, E. (2015). Le categorie del diritto civile (a proposito di un libro recente). *Raff. dir. civ.*, ff. 712.
- Nardocci, C. (2016). Il «nuovo» status dell’embrione nell’impianto sistematico della legge n. 40 del 2004. Una lettura alla luce delle sentenze nn. 96 e 229 del 2015 in D’Amico M. – Liberali B. (a cura di), *Procreazione medicalmente assistita e interruzione volontaria della gravidanza: problematiche applicative e prospettive future*. Napoli: Esi.
- Parente, F. (2012). La fisicità della persona e i limiti alla disposizione del proprio corpo. w: Lisella, G. – Parente, F., *Persona fisica – Tratt. dir. civ. CNN Perlingieri*, II, 1, Napoli: Esi.
- Parente, F. (2015). La pace e la giustizia nel sistema globale: categorie giuridiche e storicità dei concetti. *Raff. dir. civ.*, p. 330.
- Parente, F. (2018). Dalla persona biogiuridica alla persona neuronale e cybernetica. La tutela post-moderna del corpo e della mente. Napoli: Esi.
- Pellizzone, I. (2016). Le condizioni di liceità delle tecniche diagnostiche e della selezione degli embrioni dopo le sentenze 96 e 229 del 2015 della Corte costituzionale. w: D’Amico, M., Liberali, B. (a cura di), *Procreazione medicalmente assistita e interruzione volontaria della gravidanza: problematiche applicative e prospettive future*, Napoli: Esi.
- Pennasilico, M. (2016). Le categorie del diritto civile tra metodo e storia. *Riv. dir. civ.*, ff. 1246.
- Perlingieri, C. (2015). L’incidenza dell’utilizzazione della tecnologia robotica nei rapporti civilistici. *Raff. dir. civ.*, 2015, ff. 1239.
- Perlingieri, G. (2005). Venticinque anni della Rassegna di diritto civile e la «polemica sui concetti giuridici». Crisi e ridefinizione delle categorie. w: Perlingieri P. (a cura di), *Temi e problemi della civilistica contemporanea (Atti del Convegno per i Venticinque anni della Rassegna di diritto civile, 16-18 dicembre 2004)*. Napoli: Esi, ff. 543.
- Perlingieri, P. (2006). Il diritto civile nella legalità costituzionale secondo il sistema italo-comunitario delle fonti. Napoli: Esi.
- Perlingieri, P. (2009). La funzione sociale del diritto successorio. *Raff. dir. civ.*, ff. 131.
- Pizzorusso, A. (1988). *Delle persone fisiche in Comm. Scialoja –Branca*, Bologna-Roma: Zanichelli.
- Puccini, C. (1999). *Istituzioni di medicina legale*. Milano: Cea.
- Putti, P.M. (2014). Diritto e nuove tecnologie; il caso del formalismo negoziale. *Contr. e impr.*, ff. 1229.

- Rodotà, S. (2007). *La vita e le regole. Tra diritto e non diritto*. Milano: Feltrinelli.
- Scarpelli, U. (2017). *La persona nella filosofia giuridica moderna*. Napoli: Esi.
- Scia, F. (2012). *Indagini genetiche reimpianto e procreazione medicalmente assistita*. Napoli: Esi.
- Stanzione, P. (2012). *Biodiritto, postumano e diritti fondamentali*. www.comparazionedirittocivile.it.



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