ADAPTABLE ROBO-INTELLIGENCES.

Dumitru TODOROI

Academy of Economic Studies of Moldova, todoroi@ase.md

Abstract.

Information Society preceded Knowledge Society, which, in turn, preceded Consciousness Society. Consciousness Society is characterized by equality of structured Natural Intelligence (NIstructured) and Artificial (AI) ROBO-Intelligence: AI = NIstructured.

The purpose of research constitutes adaptable algorithmic process of robotic implementation of Artificial (AI) ROBO-Intelligences elements. There are created creative, emotional, temperamental, and sensual matrices (tables) of items which are to be implemented in ROBO-intelligences. Creative, emotional, temperamental and sensual items are situated on one axe of robotic tables. It represents first level of ROBO-intelligences elements. Another dimension of these tables represents items' evolution functions. Functions are located on other axe of robotic matrices. This second axe represents intellectual, emotional, sensual, and spiritual evolution steps. On the intersections of elements from one axe with the elements of other axe are situated next, superior level of ROBO-intelligence elements. One of the next level elements is developed on the base of functions of previous level elements. Using adaptable tools of algorithmic definitions of robotic elements are defined superior, next level elements of ROBO - intelligences. Presented adaptable information technology for ROBO-intelligence's creation process is used in the institutional project "Creating Consciousness Society" that is developed in the period 2008 - 2018 by the team of AESM and supporters.

Key words: robot, creativity, emotion, temperament, sentiment, intelligence, conscience, society

Introduction

Consciousness Society is characterised by the equality of Artificial Intelligence and structured Natural Intelligence (AI=NIstructured). It is predicted that Consciousness Society will be created in the period from 2019 to 2035 years.

About 90 research teams in the World are working intensive in the branch of creation of robots. It is demonstrated (Carnegie Mellon University) that from the 7 million of human work functions about 5 and a half million today can be done by the robots. These human work functions are mostly of the physical type. The intellectual, sensual, emotional, temperamental and other human functions are in the phase of investigation.

1. Adaptable tools [1] represent the algorithmic basis to be implemented in first three stage of robotic creation: formulation the problem, its formalization, and its algorithmic definition. The Kernel of adaptable tools in presented be its Adapter, which defines pragmatics (utility), syntax (structure), semantics (content, mining), context (user environment) and examples of ROBO-intelligence elements. Very important subject constitutes the utilization of Adapters in definition the higher level elements of ROBO-intelligences through its lower-level elements. Adapter is the tool, engine of information technology to create adaptive ROBO - intelligences.

Computer Based Information Systems define functional elements of ROBO – intelligences. CBIS of each of elements of ROBO-intelligences represents components part of elements and evaluation stages of these components. Components parts of ROBO-intelligences elements are presented by software, hardware, people, methods-models-algorithms-procedures, information-data-knowledge-conscience, and distribution of robotic elements. Evaluation stages of these CBIS components of ROBO-intelligences are presented by initiation and capture of elements, its saving, processing and distribution-implementation.

The Adaptable Evolution Method (AEM) is investigated, developed, and implemented in creation process of Consciousness ROBO-intelligences. It is done analysis and development of the AEM to be used for the adaptable algorithmic processing of robotic elements from the point of view of its definition (pragmatics), its presentation forms (syntax), its meaning (semantics), its usage environment (context), and its examples.

2. ROBO-intelligence's creation process as AESM institutional Projects began to be developed in 2008 year.

In the years 2008-2011 research results in the field were discussed especially by the researchers – participants at the international annual symposia at the AESM. Beginning with 2012 year results were discussed at the international TELECONFERENCES of young researchers from Moldova, Romania, Germany, Italy, Poland, and the USA.

The TELE - 2012 Conference was dedicated especially to the discussion of research results of creativity of ROBO-intelligences. Volume work was published in 2012 by ASEM [2].

It is analyzed and developed the AEM to be used for the adaptable algorithmic processing of robotic creativity's features: Inspiration, Imagery, Imagination, Intuition, Insight, Improvisation, Incubation and its evolutions: Acquire Knowledge, Develop Curiosity, Become Interested, Passion, Dedication, and Professionalism. Obtained table of higher level elements of Creative ROBO-intelligences will be adaptable algorithmic defined with the help of special developed AEM.

At the TELE -2013 Conference was presented research results obtained in the branch of emotional elements of ROBO-intelligences. The results were published in the Volume nr. 1 of newly founded by the University "Vasile Alecsandri" of Bacău ISSN Journal "Computers Consciousness Society" [3].

It is analyzed and developed the AEM to be used for the adaptable algorithmic processing of the basic emotion elements: Happiness, Fear, Amazement, Disgust, Sadness, and Anger in combination with its evolutions: Self-awareness, Managing emotions, Motivation, Empathy, Handling relationships. Obtained table of higher level elements of Emotion ROBO-intelligences will be adaptable algorithmic defined with the help of special developed AEM.

Temperament elements of ROBO - intelligences were studied, analyzed, presented, and discussed in sections of the TELE - 2014. The research results were published by ASEM [4]. The TELE – 2015 [5] and TELE – 2016 [6] were discussed the implementation of the AEM in the process of creation the sensual elements of ROBO –intelligences - positive and negative sentiments. Gifts from the Pandora's Box represent negative sentiments of ROBO-intelligences, and their opposites - positive ones.

It was implemented the AEM in the process of algorithmically definition of Sensual (positive) ROBO-intelligences characteristics. It is analyzed and developed the AEM to be used for the adaptable algorithmic processing of main positive sensual robotic characteristics: Meekness, Modesty, Satisfaction, Pleasure, Simplicity, Lavishness, Tolerance, Frigidity, Love, Health, Diligence, Joy, Courage, Fidelity, Issue, Life, and Despair. Obtained table of higher level elements of positive Sensual ROBO-intelligences will be adaptable algorithmic defined with the help of special developed AEM.

Present TELE-2017 [7] is concerned to the investigations in the next research directions: Robots in Society, Robot's Conscience processing, robotic information technologies, Robotic Information, Knowledge, and Conscience, Robots and SME.

It is implemented the AEM in the process of algorithmically definition of Sensual (negative) ROBO-intelligences characteristics. Will be done analysis and will be developed the AEM to be used for the adaptable algorithmic processing of main negative sensual robotic characteristics: Pride, Wrath, Sorrow, Deceit, Misery, Glory, Cowardice, Hate, Arrogance, Gluttony, Envy, Vanity, Lust, Fear, and Greed. Obtained table of higher level elements of negative Sensual ROBO-intelligences will be adaptable algorithmic defined with the help of special developed AEM.

There are investigated the measure of intellectual and spiritual human features, the physical places of the brain from where such features are directed and managed, the type of signals and its intensity these places produce.

Such investigations are in the great interest for the mixt teams of researchers from the biology, psychology, physics, nano-technology, bio-informatics and other sciences. Results of such investigations represent the digital basis for the adaptable algorithms of reproduce the intelligent and spiritual robotic features.

Intelligent robots have to have the creativity's evolutional features, which depends from the intensity of corresponding intelligent signals.

Spiritual robots have to possess emotion and sensual features. Its algorithmic adaptation depends of digital emotion, temperament, and sensual correspond digital basis.

Our goal is to investigate the process of algorithmic adaptation of robots based on digital basis for the algorithms of creation of intelligent and spiritual robotic features.

3. IQ vs EQ

IQ is genetic potential with which you are born and that is fixed after the age of 12 years. IQ can be developed or improved after this age. IQ is a threshold that can only show you the way to a particular career or field.

EQ, emotional quotient can be learned, developed and improved at any age. It is the combination of personal skills with experience, because emotional maturity which support your chosen career promotion. If you create a balance between IQ and EQ, the road to a remarkable success and you open

EQ evaluats through the following creative stages:
* Better understanding of their emotions
* Effective management of their emotions and significantly increase the quality of life
* Better understanding of others and coexistence with a high degree of comfort
* Creating better relationships at all levels with others and increase productivity and personal image

Research shows that emotional intelligence may be even more important than the combination of cognitive ability and technical skills. In fact, some studies indicate that emotional intelligence is twice more important than IQ.

4. Creativity

Consciousness Society will be created in the years 2019-2035 according to the results reported by researchers of approximately 90 collective of researchers from the World Conscience Society will be created in the period from 2019 to 2035 years. Such society will be characterized by the equality of structured Natural Intelligence and Artificial (robotic) intelligences. Conscience Society will be based on the strong correlation between natural and artificial (robotic) intelligence's creativity, emotions, temperaments, and sensuality. Creativity is mental process. Intelligences in Conscience Society will possess the Piirto's inspiration, imagery, imagination, intuition, insights, improvisation, and incubation features which characterize highly creative people. Creativity top of intelligences will be touched by the process of acquiring knowledge, developing curiosity, becoming interested, and successive culminating with passion, dedication, and professionalism as highest level of activity. Correlation between creativity, temperament, emotional, and sensual features of robotic intelligences and its interactivity represent Robotic Intelligence Kernel of Consciousness Society. Case studies illustrate that adaptable tools can represent algorithmic engine to develop Robotic Intelligence Kernel, it's levels and dialects in Conscience Society

5. Emotions

Creative intelligence quotient (IQ) and emotional intelligence quotient (EQ) are complementary and their measurement allows you to assess your ability to succeed in life. Explore what IQ and EQ and if IQ tests are relevant to your career, you can develop yourself to succeed and become a successful person. Base emotions are: Happiness, Fear, Surprise, Disgust, Sadness, and Anger

Happiness is a mental state of well-being characterized by positive emotions or pleasant, from contentment to intense joy. Different approaches to biological, psychological, religious and philosophical strove to define happiness and identify its sources.

Fear is a survival mechanism occurring as a human response to a specific threat, usually negative. Fear is related to anxiety. It depends on the person and can range from phobia and paranoia caution. It takes several states, including care, anxiety, terror, paranoia, horror, panic. A fear of extreme intensity, persistent seized by the subject as phobia. Phobia is only

determined by the presence or anticipation of the presence of an object, of a life or situation.

Disgust is an emotion that is usually associated with things considered unclean, inedible, infectious etc. A disgusted man may be primarily a food that does not smell unpleasant.

Sadness is an emotion characterized by feelings of disadvantage, loss, and helplessness. When sad, quiet man often becomes less energetic and withdrawn.

Anger is an emotion that physical effects include increased heart rate, blood pressure, and levels of adrenaline and noradrenaline. Anger becomes the predominant feeling in terms of behavioral, cognitive, physiological, when a person consciously choose to act against the danger came from outside

Correlation between temperament's and emotion's features of robotic intelligences represents Robotic Emotional Kernel of EQ in Consciousness Society. Next examples show definition's component parts of the adaptable algorithms which describe the emotional evolution of sanguine ROBO-intelligences: Happy ROBO – intelligence: Won the football loved team; Fearful ROBO-intelligence: Have the fear that it will not be able to arrive on time; Surprised ROBO-intelligence: His roommate was working better than it; ROBO-intelligence with disgust: Was awakened from sleep with a frog on the nose; ROBO-intelligence sadness: It was sick and could not get to a business meeting; Anger ROBO-intelligence: At the meeting was not presented not one of the group co-workers

Conclusion

Research results in the AESM institutional Project "Consciousness Society Creation" are announced in tens other publications, inclusively in two books [8, 9].

1. Detailed information about discussed subject is presented in the Book: "Creativity in Conscience Society. Creativity and Adaptability" [8]. This book was edited by LAMBERT Academic Publishing, Saarbrucken, Germany, 2012 with next structured presentation:

1.1. Consciousness evolution. Information Society. Knowledge based Society. Consciousness Society.

1.2. Conscience. Conscious competence. Conscious incompetence. The subconscious mind. The power of Subconscious. Conscious vs. Subconscious. Unconscious. Unconscious competence. Unconscious incompetence. Cognition. Consciousness and thought. Our Behaviour is Driven by our Subconscious Mind. Subconscious.

1.3. What is Subconscious Mind? The power of Subconscious Mind. What goes in our Subconscious Mind? Our behaviour is driven by our Subconscious Mind. How to discover the Subconscious? Subconscious Learning. Reprogramming your Subconscious Mind for success. . The incredible power of intent. Are Your beliefs holding You back? The Subconscious contains our unused potentials and our blockages. Dark shadow. Light Shadow. How to come into relationship with your subconscious? Dialogue with your subconscious.

1.4. Creativity in Conscience Society. Information, Knowledge Based, and Conscience Societies. New orientations in actual informatics. Creativity in Conscience Society. What Creativity Is, why It Is Important, where It Is Used. Analysing Creativity. Creativity is a Brain Activity. Mastering the Daily Life. Creativity and Profession. The Piirto's Six Steps. The Piirto's 7i. Creativity's Kernel. When and where Creativity Occurs. How Creative People are Looked upon. Managing Individual Creativity and Company Goals. Individual Creativity. Teams, Creativity and Product Development. Company's Product Development Goals. Entrepreneur's and Small Companies' Product Development.

1.5. Adaptable Support for Creativity. Difficulties in porting Office. Criticisms of Microsoft Office. Adaptive and Evolvable Hardware. Adaptable Software.First level Adaptable Processors.
The second level Adaptable Processors. The third level adaptable processors. Adaptable Tools' perspectives. Adaptable Software advantage.

1.6. Adaptable Human - Machine Interface. Memory requirements. Human - Machine Interface (HMI). BI - dimension computer graphic. 3D - computer graphic. Adaptable computer graphic. Modern evolution of Computer graphic. Next Generation Graphic & Thunderbolt I/O Technology. NVIDIA Quadro® 400 graphics processing unit. Video

Editing Requirements of Creative Professionals.

1.7. Creativity's Kernel Extensions-Dialects. The First Seven Years in Conscious Life. Millennium's Personalities for Conscience Society. Religion and social moralities in Conscience Society. Religious views of conscience. Ecologic Business in Conscience Society. Ecologically pure production in Conscience Society. Beauty - a conscience's element. Conscience elements. Conscience elements & Creativity's Kernel.

1.8. Education and research in Conscience Society. Educational environment. Educational components. Educational Development. Conscience domains. The first 7 years of life. Primary education. Secondary school. Higher education. Bologna process. Education and research in current decade. The decade of change in European Higher Education. Sustainability through reform on a European scale. Increasing Responsiveness. Sustainability through more cooperation. Improving capacity to manage change. Next decade in the European education and research areas.

2. The 2nd book "Creative Robotic Intelligences" [9] is published by Editions Universitaires Europeennes, Saarbrucken, New York, 2017 with next contents

2.1. Conscience Society will be created in the period from 2019 to 2035 years. Such society will be based on the strong correlation between natural and artificial intelligences. Intelligences in Conscience Society to our opinion will possess the Piirto's inspiration, imagery, imagination, intuition, insights, improvisation, and incubation features which characterize highly creative people. Creativity top of intelligences in Conscience Society will be touched by acquiring knowledge, developing curiosity, becoming interested, and successive culminating with passion, dedication, and professionalism as highest level of activity. Correlation between intelligence's features and creativity levels of activity and its interactivity represent Creativity Kernel. Case studies illustrate that adaptable tools can represent engine to develop Creativity Kernel and it's dialects in Conscience Society

2.2. Creativity is man's (in our opinion not only man's (Natural Intelligence) but and exclusive important computer's, that is, Artificial Intelligence's) capacity to produce insights, new ideas, inventions or artistic objects, which are accepted of being of social, spiritual, esthetic, or technological value. Creativity is a mental process [1]. The Piirto's Six Steps of Creativity development (acquire Knowledge, develop Curiosity, become Interested, Passion, Dedication, and Professionalism) interference and interaction with Piirto's 7i features (Inspiration, Imagery, Imagination, Intuition, Insights, Improvisation, and Incubation) which characterize highly creative people represents the Base Creativity's Kernel to be developed in Conscience Society. Tools for Base Creativity's Kernel's development are represented by both [2] it's information (adaptable environment) and it's operational (adaptable system) parts

It was studied the interest and passion, evolution steps of creativity in Conscience Society. That first level Creativity's elements are based on the creativity's base elements in Conscience Society.

2.3. Creativity is a mental process. Intelligences in Conscience Society will possess the Piirto's inspiration, imagery, imagination, intuition, insights, improvisation, and incubation features which characterize highly creative people. Creativity top of intelligences will be touched by the process of acquiring knowledge, developing curiosity, becoming interested, and successive culminating with passion, dedication, and professionalism as highest level of activity. Dedication is: complete and wholehearted fidelity; a ceremony in which something is dedicated to some goal or purpose; a message that makes a pledge; a short message dedicating it to someone or something; the act of binding yourself (intellectually or emotionally) to a course of action; an act or rite of dedicating to a divine being or to a sacred use; a devoting or setting aside for a particular purpose; self-sacrificing devotion; a ceremony to mark the official completion or opening of something. Professionalism is often defined as the strict adherence to courtesy, honesty and responsibility when dealing with individuals or other companies in the business environment. This trait often includes a high level of excellence going above and beyond basic requirements. Work ethic is usually concerned with the personal values demonstrated by business owners or entrepreneurs and instilled in

the company's employees. The good work ethic may include completing tasks in a timely manner with the highest quality possible and taking pride in completed tasks. When Creativity features Dedication and Professionalism Creativity tops are working, the individuals, the team and the company hit success!

2.4. Creativity is a mental process; it is a result of brain activity which differentiates individuals and could ensure an important competitive advantage for persons, for companies, and for Society in general. Very innovative branches – like software industry, computer industry, machines industry – in Information Era and in special, in Conscience Society of this Era, consider creativity as the key of business success.

2.5. Intelligences in Conscience Society will possess the investigated inspiration, imagery, imagination, intuition, insights, improvisation, and incubation intelligence's features which characterize highly creative people. Creativity top of intelligences will be touched by the hierarchical process of acquiring knowledge, developing curiosity, becoming interested, and successive culminating with passion, dedication, and professionalism as highest level of activity.

2.6. Dedication is: (1) complete and wholehearted fidelity; (2) a ceremony in which something is dedicated to some goal or purpose; (3) a message that makes a pledge; (4) a short message dedicating it to someone or something; (5) the act of binding yourself (intellectually or emotionally) to a course of action; (6) an act or rite of dedicating to a divine being or to a sacred use; (7) a devoting or setting aside for a particular purpose; (8) self-sacrificing devotion; (9) a ceremony to mark the official completion or opening of something.

2.7. Professionalism is often defined as the strict adherence to courtesy, honesty and responsibility when dealing with individuals or other companies in the business environment. This trait often includes a high level of excellence going above and beyond basic requirements. Work ethic is usually concerned with the personal values demonstrated by business owners or entrepreneurs and instilled in the company's employees. The good work ethic may include completing tasks in a timely manner with the highest quality possible and

taking pride in completed tasks.

When Creative features Dedication and Professionalism Creativity tops are working, the individuals, the team, and the company hit success!

Taking "A machine can act intelligently" as a working hypothesis, many researchers have attempted to build such a machine. The purpose of the research is to find out the common moral principles for Artificial and Natural Intelligence that would serve a basis for successful interacting of robots with humans.

Creative ROBO-intelligences will possess features which characterize highly creative people (natural intelligence). Character's creativity and emotion intelligences which are to be implemented in Character ROBO-intelligences and Emotional ROBO-intelligences are analysed and developed.

3. The last time in European Community

Our publication [8,9] confirm the European Community international interest [10] for our research in the Branch of Conscience Society Creation process and its engine ROBO-intelligences algorithmically supported by the Adaptable Tools.

3.1. Robots in Homo - Robotic Conscience Society

Committee on the problems of the European Parliament endorsed the draft recommendations, as well as the administrative regulations on the civil-engineering production of robots. For that document voted PRO: 17 deputies, Against: 2 deputies, and Obtained: 2 deputies.

3.2. Robot's Econometrics

According to data of the European Parliament, in the period 2010-2014 the average sales of robots was 17% annual and in 2015 has risen to 29 percent. Growth of robots developed the volume of patents in relation to robots - in the last 10 years the volume has doubled.

Artificial intelligence will determine economic efficiency in such spheres as manufacturing, commerce, transport, medical service, education, case-law and agriculture.

3.3. Robot - legal status

It is not yet determined the legal status of robots, which soon will overwhelm us.

Scientists are, as some carriers of artificial intelligence, provided with self-education capacity, separately, will need to be identified as "electronic faces" with corresponding Passport.

The document will contain the framework conditions for producers and users of robots, formulated since the great writer Isaac Azimov: 3 principles - the basic conditions in collaboration with robots and humans.

3.4. Isaac Azimov: 3 principles
Asimov's Three Laws of Robotics, as they are called, have survived to the present:

1. Robots must never harm human beings or, through inaction, allow a human being to come to harm.

2. Robots must follow instructions from humans without violating rule 1.

3. Robots must protect themselves without violating the other rules.

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