

# The Influence of Digital Transformation and Approach on the Social Economy and Solidarity

Marian Sorin Ionescu
University POLITEHNICA Bucharest, Romania

M.S. Ionescu - June 2019

1

#### Outline

- Introduction, general perspective
- Structure, community
- Predictions and managerial decision
- The impact of new digital technologies on the labor market
- The new vision concerning jobs: drama or hope
- Influences induced to implementation of automation and learning
- Thinking and human decision
- Impact on the labor market, dimensionality and depth: towards more sustainability!
- Digital Transformation and Social Dialogue
- Conclusions

M.S. Ionescu - June 2019

Introduction, general perspective (1) Storage 21PB · Foundation of the digital economy is Coms 59PB positioned on the scientific concept, the "DATA" concept in all the Storage 277EB economic, social, scientific, human Coms 537EB1 cultural activities Comp 195PIPS The quasi-totality of the physical structures of intelligent applications translated from I.T. in the business Storage 140 ZB environment result in the appearance Coms 272 ZB of digital data. Comp 2'590 ZIPS • In 2010 Humanity entered the zettabyte digital data era! Edge IoT >50 ZB

M.S. Ionescu - June 2019

### Introduction, general perspective (2)

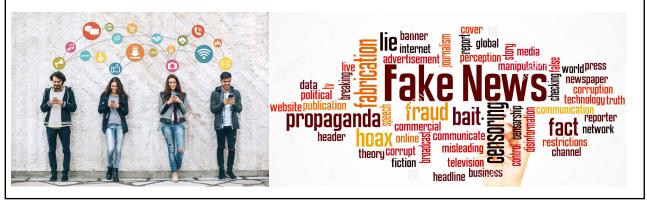
- In the DIGITAL ECONOMY, the data are practically "economic assets", like any other, a very high degree of importance having the parameters that influence the new concepts and business models chosen, as well as their quality, type, cost allocation.
- There are new paradigms introduced by the Artificial Intelligence Vector in the future decision process leading to optimal financial allocations for expenses and costs generated by the chosen business model.
- Data by a wide variety of technological sensors and new procedure at the decision-making level.



M.S. Ionescu - June 2019

### Structure, community (1)

• Data production by humans and structure: "blogs" or "tweets" or in complex combinations, social networks, Facebook, WhatsApp, Facebook Messenger, QQ, WeChat, QZone, Tumblr, Instagram, Twitter, Baidu Tieba, Skype, Viber, LINE, Snapchat, VKontakte, Pinterest, BBM, LinkedIn, Telegram, ...



#### Structure, community (2)

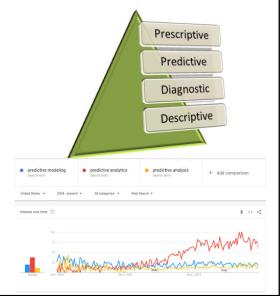


- Features of digital data relevant for the digital economy:
  - mobility and flexibility: a continuous miniaturization process, sensors, video interfaces, help transplant digital operations in any location, interference in the strictly private activities of the human entity are steadily increasing;
  - □ powerful penetration of individual human life: International Telecommunication Union, predicts that more than half of the world's population is an Internet service user, starting in 2016;
  - □ organizational management: responsible for choosing, studying and interpreting data quality, large data volumes are the consequence of the transition to the digital economy and society, they provide a coherent and sustainable basis for sustainable services.
  - □ Communication: has the possibility of synchronous, asynchronous modifications, for specific, punctual operations, but also for those specific to business models, with a high degree of generality, at the level of the human individual.

M.S. Ionescu - June 2019

### Predictions and managerial decision

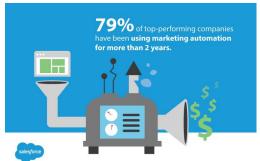
- Prediction becomes a major trend in solving the problem of managerial decision-making.
- Addressing the issue at the level of top-level organizational decisions, we identify the following entity levels:
  - (a) Data level;
  - (b) Prediction level
  - (c) Level of neuro-mimic model development
  - (d) Operational-strategic level.
- scientific-decisional standards of the used machines and automata, thus of the "artificial intelligence
- Need of models for specific processes and algorithms specific to the human rationality area are reinterpreted as strategic operational developmental predictions.



M.S. Ionescu - June 2019

### The impact of new digital technologies on the labor market

- The 4th industrial revolution began along with the take-over in the business world of the concepts, paradigms and operational-strategic models specific to Artificial Intelligence.
- The automation of an increasing number of operations as a very current strategic trend, technological change inducing, besides certain benefits and predictable vulnerabilities.



### The new vision concerning jobs: drama or hope

- Digitization of the economy to its entire micro, medium and macro levels attracts
  the attention of elitist academic entities, forecasts in the medium and long term,
  announces the disappearance of more than half of jobs in advanced economies
  of the world mass character, with enormous social impact, the response to this
  type of challenge is one induced by all economic organizations
- Do NOT deny or underestimate the future effects of the challenge of digitization on jobs!
- · Find alternative solutions, new types of digital jobs, new skills!
- Operational perception and strategic vision on human resources, their allocation
  and induction of automation processes within the generation of higher added
  value in complex manufacturing processes within the scope of "Artificial
  Intelligence": the strongest influence on the human individual positioned for
  economic organizations on "entry level" competence levels.



M.S. Ionescu - June 2019

### Influences induced to implementation of automation and learning

- Recent attention given to the implementation platforms of the new technologies of the issues of automation and learning.
- The implementation and the transposition into operation of certain procedures and algorithms
  specific to automatic learning: the central trend is structured on statistical methods that develop
  predictability models for the sets of intrinsic and extrinsic systemic data, significant for
  economic organizations.
- Automation is vulnerable in the face of the human individual if data systemic implemented are required, other than those required for current operations and development of strategic predictions.
- Business models that are appropriate to implement the concepts and paradigms derived from Artificial Intelligence are identifiable as follows:
  - ☐ Requires the development of a predictive to the detriment of causal deduction;
  - ☐ They have a relevant degree of autonomy, external influences not external are negligible.

M.S. Ionescu - June 2019

### Thinking and human decision

- Implementation of automation for business process management provides a great opportunity for further development of native abilities but also those accumulated through educational processes.
- What is essential: the monitoring activities, in-depth understanding of the totality
  of the phenomena induced for jobs, vulnerabilities generated by the human
  individual, the possibilities of solving and improving by introducing the new
  coordinates of digitization.
- Human qualities and abilities there are two major action areas:
  - Professional training-educational training, the present that shapes skills and abilities is insufficient or degraded by the realities existing in the specialized market;
  - The fundamental transformation of educational concepts, the role of transversal abilities is essential, the generation of innovative solutions difficult to imitate by competition, lead to educational domains that develop, then distribute the values of Artificial Intelligence.



#### **NEW SKILLS:**

- communication and cognitive skills
- · creative-innovative skills
- Socializing & situational skills
- Perceptible tasks and operationalization skills-

4.4

## Impact on the labor market, dimensionality and depth: towards more sustainability

M.S. Ionescu - June 2019

- Key conditionality for a social economy is that the ability to develop sustainable strategies and prognoses with a relevant degree of continuity is matched by realistic and consistent public policies.
- The dimensionality and social depth of the phenomena approached are positioned in a major gap (distance) from the general training-education strategies, the identification of the corresponding jobs (positions), the employment and effective operationality.
- At the state decision-making level: the articulated and operationally transposable strategies that
  ensure the proper functioning of the total labor market mechanisms are subject to scientific,
  social, economic transversal studies with repercussions into the entire human society.
- We propose that at regular, well-determined time intervals, studies aiming the automation of
  job duties, positions with the highest degree of vulnerability, new potential locations to be
  created, potential transactional automation processes need to be updated based on a process
  continuously by correlating the used data.
- The complementarity of the assignment of job duties between man and machine becomes a
  central concern within the operational structure of a social economy.

M.S. Ionescu - June 2019

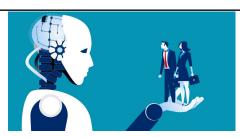
### Digital Transformation and Social Dialogue

- The study and analysis structures applicable to the new economic reality on the labor market have a strong inter-job reflection and are a bridge between state authorities, local government and trade unions expressing the willingness and necessities of the players on the labor market.
- Two processes with a relevant degree of impact such as "co-innovation" and "co-elaboration", in which the final users are involved, from the human resources management.
- Studies developed by specialized EU bodies, proving the degree of job security, clearly show that the involvement of organizational human resources leads to a minimization of real and potential risk.
- Common rules, clearly defined time points, locations positioning, lead to an added value generated by each individual contribution.

M.S. Ionescu - June 2019

13

#### **Conclusions**



- The concept of "artificial intelligence" in the social economy has a high degree of difficulty with regard to exact location.
- Interesting areas have a multitude of theoretical and practical affinities with the social economy issue, its
  offer is extremely varied by ontological methods provided, non-contentious learning networks, complex
  processes of the same type, these approaches have concrete confirmation on real case studies in the recent
  history of science.
- Applying the approaches and methods specific to "artificial intelligence" give and will give in a certain strategic approach concrete results, real successes within the business models used in the social economy.
- The concepts, paradigms and algorithms developed by "artificial intelligence" induce innovating cognitive
  trends, such as singularity and transhumanism, which then find wide ranges of applications within the
  economic models specific to the social and solidarity economy

M.S. Ionescu - June 2019