

## CHILDREN'S ECONOMIC EDUCATION – ARE WE EDUCATE E-LEADERS?

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ABSTRACT What we can see in Poland and in Europe for the past 10 years is a significant progress of extracurricular education of children and youth as a result of promotion children's little universities. But at the same time marketplace is constantly evolving. Europe 2020 Strategy has shared competence which will use future employees. In view of the above article, writer have wondered how these further efforts taken by Economic Universities respond to market-trends under which economy will need a-leaders. In accordance with the case study, which the economic education for children is being implemented by her, made out evaluation of the needs of future labour market and modification to improve this program.

### Digital Economy — new labour market

Development of artificial intelligence and pervasive digitisation made and will make in future wide changes a socio-economic. How does Ch. Degryse<sup>1</sup> assess “Mirage of Big Data and spite of robots heralds of coming a new

<sup>1</sup> Ch. Degryse is an expert of European Trade Union Institute.

economy and a new world of employment". There is a dynamic changes in type, character and the style of working. On one side the list of professions is evolving, and a lots of them will disappear and appear new ones but all will accompany by the growing fast technology. But on the other side we can say that one stable work station for many years till retirement is a thing of the past now. So we need to think about our career path and development at the primary school stage.

Analysts agree that the next few decades will be a revolution for a work type activity. On this basis, the following findings are made for some of the specific professions. Technological developments will reduce some of the professions because of a technical automation – in Poland it will be about 40% and 57% it will be in OECD countries.<sup>2</sup> We could see these trends in US economy over the 30 years now (Figure 1). The similar study was performed in some part of Poland for specific professions. (Figure 2). At the risk are the bottom line job: repetitive human labor is becoming obsolete and impractical and replaced by the machines because they more effective. Poland is one of those countries, where a low labour costs increased data processing jobs recommended by the global corporations (offshoring and outsourcing). But even if the machine has proven that it can replace the hand of man, it cannot replace his brain, specific and individual opinion. Wherever comes to professional intuition, connection between people or experience turns out that a human is irreplaceable.

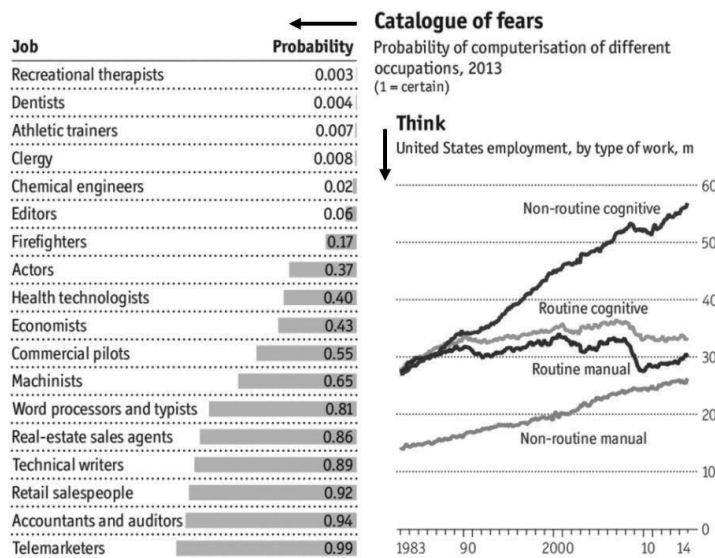
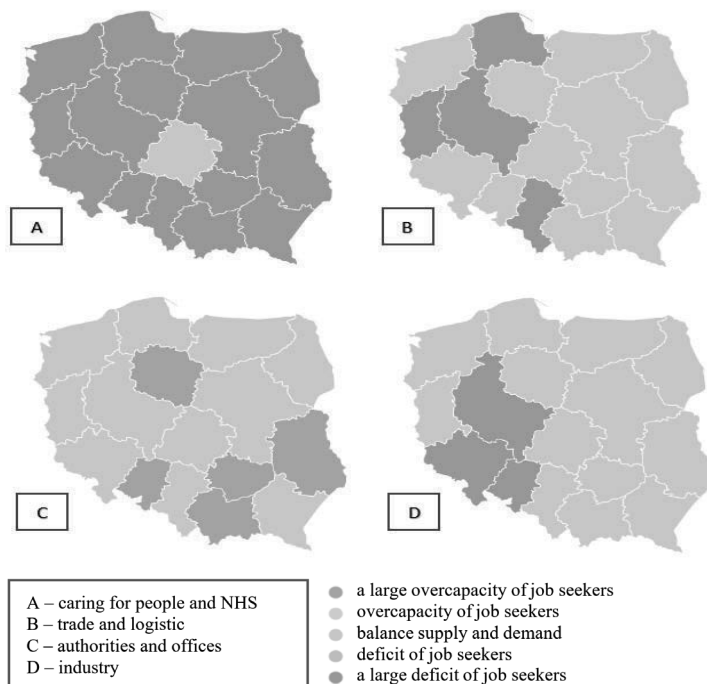


Figure 1. American labour market

Source: *Special report. The impact...* (2016).

<sup>2</sup> DELab UW: in Poland it is an estimated reduction of 40 % professions, but in OECD countries 57%. Poles are aware of in decades to come the most of the task will carry out by machines – said 64% surveyed, although 40% believe that this changes will affect their occupational status. In comparison in American society awareness of increasing automation is similar, but only 20% surveyed involve this in their job profession. See: *Aktywni...* (2017). Oxford University suggest that 63% workplaces in transport, warehouse, logistics and marketing will be automated. See: *Technology at work...* (2017). McKinsey: technological changes may cause reduction of 45% all jobs, 5% jobs will disappear completely, but in the case of highly developed countries transformation rate will be slower but the final scale will be much more extreme for the Labour Market. See: *The AI revolution...* (2017) and *Digital dividends...*(2016).

The question arises of whether automation is a chance or risk? On the one side increase the efficiency of work and eliminate mistakes but on the other increase chance of technological unemployment and make social fracture in community. So now in IKEA or Castorama customer can make an invoice, so what with existing customer service position? Customer service advisor have to change to help customers make an decisions, recognise their needs, to analyse and resolve problems and help build customer experience and create added value for them.



**Figure 2.** Labour market in Poland in 2017

Sources: elaboration on the basis: *Aktywni...* (2017).

The continuing robotising make a one more thought – lots of socio-economic problems, will solve if we cut the work time. Additional free time could be another value added to labour market. In 1930 J.M Keynes predicted that within next century productivity increase so will help reduce weekly working time to 15 hours.<sup>3</sup> Currently 64% Poles (80% students) thinks that digitisation and automation is going to make more free time for the people (*Aktywni...*, 2017).

On the purpose we look closer into students – future employees generation “Z”. Changes in the labour market it's not just about the structure of professions, the changes also include style of working – follows phenomenon

<sup>3</sup> Keynes was thinking that job is a necessity. So people will be working no longer than it's needed. His prognosis were popular in the US till 70s of 20th century. The working week was shortened down from 47 to 39 hours. The job productivity is still growing like it was predicted by the economist. So why the process had stopped? There was a very interesting discussion about working hours leaded by: Zaremba (2017).

precarity,<sup>4</sup> digital technology encourages freelance self-employment (uberisation – Piwnicki, 2018). In the most recent study for Gumtree.pl website developed by DElab UW<sup>5</sup> shows that – 54% surveyed Poles can assume that in future they will need to work in a few jobs to make a living. Unskilled workers (70%) are fear most, and the least are traders (43%). And even though other things will change in understanding of the social security young people prefer to be as the freelancer's. In 2016 14% employed people in Europe at the age of 15 to 64 had their own business, in Poland it was 18%. Evolution of employment let people work independently, flexible, no matter of their employer or let people work for many employers. Among the social-economical consequences we could also defined some less positive impact. Possibility of work from home is making an excessive control on employee by the employer, and he can lost his balance between work and home life. Distortion of the work-life balance can affect his work, rest and on the end can make professional burnout for him. Which will result a psychological counselling in future.

### Challenge for education — key competences

Idea of life-long learning (LLL) it's a quality of modern economy. Dividing active education to school period, career and retirement is now totally outdated. Strategy of lifelong learning implemented by various EU countries, is based on a set of key competencies adapted to dynamic changes and innovation approved by EU.<sup>6</sup> To meet market expectations we cannot ignore educational process of development the digital competences.<sup>7</sup> The majority (83%) Poles believes that these competences are and will be necessary in the labour market. 82% Poles also think that studying programming should be mandatory in Primary school. Paradoxically, however the digital competency of Poles are the lowest in the Europe (Figure 3). Statement of the digital economy and society index (DESI) for a various European countries illustrates, how big gap is between Poland and highly-developed countries in this area. Relatively the weakest areas in Poland are: using internet and deployment of the digital technology in companies. 20% of Poles never used an internet, 57% of those surveyed uses an internet everyday and 39% use a computer at work, where in EU is adequately to 71% and 50%.<sup>8</sup>

Digital competences yes – there is some areas that a contact with other people is necessary such as: education, sport, culture, medicine or care for someone there will be support by the technology. Citing A. Toffler – “illiterate the 21st century won't be person who doesn't know an excel or coding but people who can't learn new things and wean themselves from an old ones”. We should not learn everything it's just enough to be a specialist in what we want to do in future, and to use technology to improve our work at the same time. In addition to digital

<sup>4</sup> Precarization the job is uncertain because of the popular activity forms which can't guarantee a permanent employment, payment stability or insurance.

<sup>5</sup> Digital Economy Lab Warsaw University from 4 years is realizing a Gumtree.pl strategy – is diagnosing a labour market and giving the right solutions to the members of the market. Cited raport “Active + Future labour market” was created as a part of 4th edition of the programme “Start your Career” which aim is to provide trends, which in the next few years will be educate reality of polish workers and traders. Reports are used as substantive base of pupils workshop activity in all school helps shape their future professional development path.

<sup>6</sup> The most important economy competency are: possibility of communication in native language and other, mathematical, science and technical, ability to learn, social and civil. See *Recommendation of the...* (2006).

<sup>7</sup> Digital competency it is an ability to use the computer and internet to communicate. Looking for information and solving problems at home and at work.

<sup>8</sup> The polish IT specialist are one of the best in the world. They are winning the most prestigious prizes. 3rd place ranked HackerNet, 5th in TopCoder. See *Aktywni...* (2017).

competences we should develop social skills include work as a part of the team.<sup>9</sup> Digital economy will deliver a creative, unorthodox actions or cognitive skills in several profession.

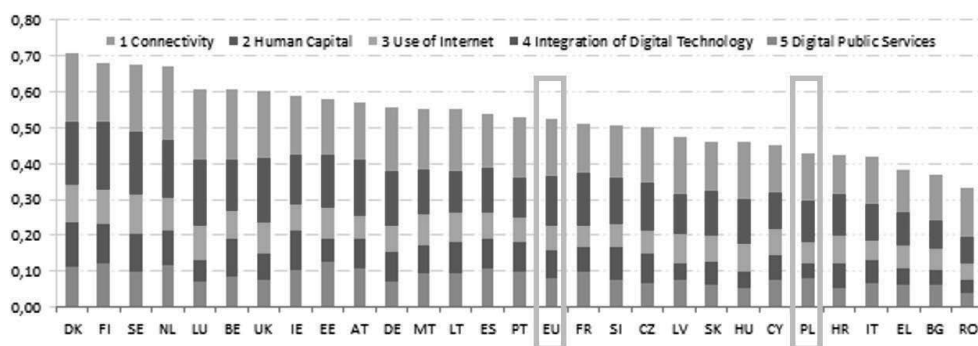


Figure 3. DESI 2017

Source: *The Digital...* (2018).



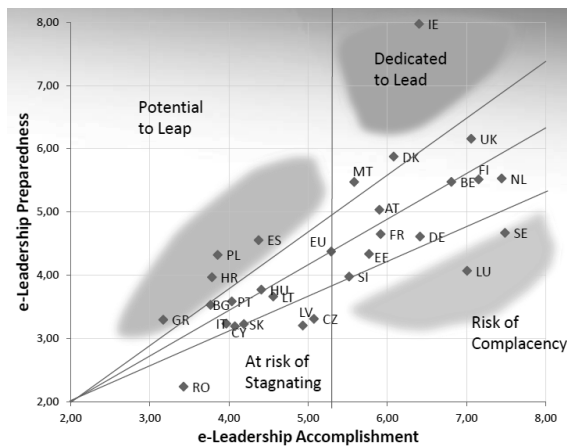
Figure 4. Digital economy needs e-leaders

Source: *European Conference...* (2017).

In digital economy the highest paid job will be the one with advanced analyst data. Digital revolution brings with it access to the magnitude of information what extends possibility but also is making an information chaos. In the chaos it is difficult to verify reliability of the submitted data and also to focus on the key issue. Cooperation with artificial intelligence let work more efficiently and minimises mistakes, but also is forcing us to build additional abilities – analysis and interpretation of the facts. In digital economy there will be a need for “e-leaders”. By 2020

<sup>9</sup> We are talking about social intelligence, which is restricted to emotion intelligence it means cooperation with other on the basis of understanding their needs and clearly show your own opinion. See Albrecht (2006).

EU economy will need even a million of these workers. Who is the e-leader? Is the person who can connect digital, business and management competencies all together (Figure 4). This is an opportunity for creative sociologists and economists.



**Figure 5.** Accomplishment vs. Preparedness Plotting in Europe

Source: *European Conference...* (2017).

Poland is in group of countries with high outlook on growing their e-leadership skills maturity also as a result of Education programmes and graduates. Other countries were highlighted because other reasons, for example: Ireland for executive education and LLL, Malta for Policies and initiatives, Denmark for Graduates & junior practitioners and LLL too and finally Spain for Executive education.

### Children's University... E-leaders?

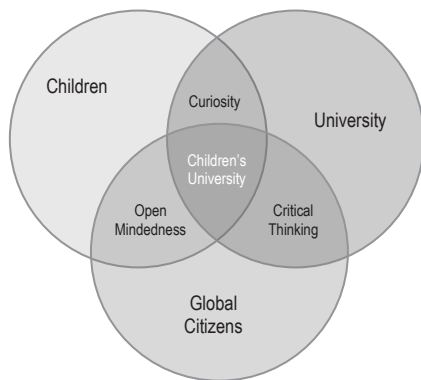
One of the element the concept of life-long learning is continuing training, defined as set of actions formal and informal by which adults can expand their knowledge, developing their individual talents, establish professional competence allowing them to meet their own needs and also to adapt the expectations of the society and labour market.<sup>10</sup> They say in the definition of UNESCO about adult education not because in process of life- long learning we are neglecting children. According to the author, definition was designed to underline a need for a continuation of school after graduation. Furthermore, at the school stage children should be made aware of improving their skills in future adult life.<sup>11</sup>

Most valuable element of children after school education is children's universities. Their popularity is growing although their existence are dependent on government funds. First children university was founded in Krakow in 2007 as a join initiative of the Foundation PAIDEIA, University of Jagiellonian and Polish Academy of Science

<sup>10</sup> Recommendation in case of adult education development (Nairobi 1976), Hamburg Declaration (1997). See [www.unesco.pl](http://www.unesco.pl).

<sup>11</sup> Continuing education with regard to adults there is in the Polish Law. See Ustawa z dnia 14 grudnia 2016 r... Discussion about entities covered under continuing education led: Pólturzycki (2006).

in Krakow (Ziółkowski, 2016). Five years earlier was founded first Children university in Europe – it happened in University in Tübingen as a result of cooperation between university staff and German magazine journalists (Jansen, Steuernagel, 2006). This idea was so successful it result a group of universities under the name of “Die Kinder Uni”.<sup>12</sup> In 2005 this idea was honored by the European Commission and rewarded as Descartes Academy. Consequence of this was initiation of Framework Programme of EU – “European Children's Universities Network” in 2009, representing a group of children's universities from different countries including Poland.<sup>13</sup> Now in Poland we have about 200 initiative of children's universities. In community is being discussed about all initiatives and are they all children's universities.<sup>14</sup> There is no regulations made about children's universities but EUCU.net proposes definition under which children's university is made which is: university (professors and facilities) and children, and in this project we cherish qualities such as : curiosity, open mind, critical thinking and also raising the citizens of the world (Figure 6).



**Figure 6.** What is a Children's University?

Source: <https://eucu.net/video>.

An example of this initiative which corresponds to cited definition is Children Economic University (EUD) implemented by: Foundation for the Promotion and Accreditation of Economic Education. (FPAKE) and regional universities include University of Szczecin.<sup>15</sup> Students of EUD are pupils in age between 10–13 years old. A sister project is carried out for older pupils – 14 till 16 years old under the name of Academy of Young Economist (AME). In both group we are doing research about children economical awareness and maturity within methodology FPAKE.<sup>16</sup> In this article we will use some examples about building potential in children and young people regarding their future career and being e-leaders.

<sup>12</sup> [www.die-kinder-uni.de](http://www.die-kinder-uni.de).

<sup>13</sup> [www.eucu.net](http://www.eucu.net).

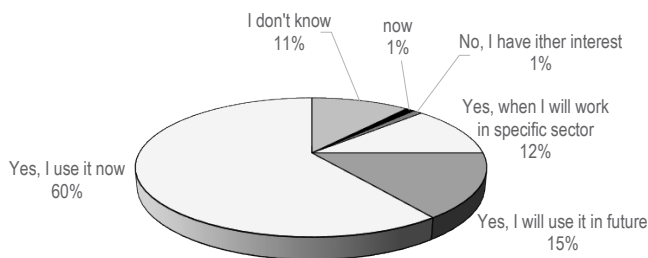
<sup>14</sup> See <http://sliwerski-pedagog.blogspot.com>.

<sup>15</sup> See [www.uniwersytet-dzieciacy.pl](http://www.uniwersytet-dzieciacy.pl).

<sup>16</sup> The purpose of the study is diagnose students attitudes in area of business and economy and also assessment level of knowledge and understanding the basis of these areas. A tool for achieving research is “The study of consciousness and economical

Research results made in University of Szczecin<sup>17</sup> are showing that most of after school education projects provide main source of economic knowledge. Research results are showing that after school education projects are very productive for children who wants build their economic knowledge, they also made children inspired to made a home discussion with their relatives about social-economic process, mostly at the micro level (55% children is taking part regularly). 43% surveyed answered that they had economic classes before in their school. This is a good prognosis to strengthening cooperation between different educational institutions. This cooperation will lead to make future knowledge workers (Collins, Porras, 2008).

Children recognise a lot economic idea's but sometimes they can't defined them into a right context. Children shows significant economical interest, they know well the money matters. They operates great funds management as most of them have their own pocket money. In younger group 93% children declared that they have some savings but in older group it was only 71%. Most of the children demonstrate a great basis economic knowledge and the extension of economic knowledge will be a strong success factor in future (Figure 7).



**Figure 7.** It's worth learn economy?

Source: Elaboration on the basis of Methodology FPAKE.

Program of the economic education is develop by the results of used studies. This program include elements of education strategy e-leaders (see Figure 4)

1. Strategic planning committee including prediction need for information, analyse clients needs, great communication, looking for creative solutions, ability to learn and team management.
2. Business expert, who can to manage project, analyse market, optimize management processes and maintain good relations with customers.

A onetime thing in Szczecin was implemented a project with the cooperation between German schools. This project helped introduce in to education program functioning international aspect. More care we should

maturity template". Test consists 4 parts. Two first are designed to establish a level of knowledge of economical meaning, although first self-esteem is verified by the students themselves about their economics and management zone. 3rd part allow identify at what point participants are agree with specific ideas and stance towards economic developments. In the last part attention applies to the evaluation of participants commitment and their motivation to learning economy. Author coordinate research work in the facility in Szczecin. See [www.fundacja.edu.pl](http://www.fundacja.edu.pl).

<sup>17</sup> In the study participated 96 people, of which 64% were children form the youngest group. In both studies most of population were boys, were some of the participated they didn't say their gender.



give to partnership subjects and business analytics. In economic education programme has not been taken under consideration of knowledge of IT elements. Partly they been used in class with children and their parents. To effectively implement the strategy education of e-leaders, we need to improve Big Data knowledge, data processing in the cloud, expansion of mobile applications, social media and network security. It is possible and there is an implementing team at Szczecin University, that works on program which will be answers to a new career trends and would allow us to develop competencies valuable for employers.

## Conclusions

Labour market is strongly changing. This is the result of progressive digitisation accompanying by the automation. Changes are getting stronger. Future employee – or perhaps I should say future contractor's work – should be characterised by an additional, often completely different competence, interdisciplinary skills, holistic way to the project and also more elastic work organisation. It is predicted to economy that it need e-leaders, those will connect economic knowledge, management knowledge and IT together. In the education system have occurred innovation forms of education in the form of childrens universities. This will reduce a time of aim person professional development who is a child now but will be an employee in the next few years. It also diversify ways of showing the knowledge, learning additional skills. In that way children's economic university in a huge part develops future e-leaders. Following the introduction of IT elements to the program and keep it for good will allow us to do it in very comprehensive way.

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