

Shaping of the professional community in digital economy: a case study

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Abstract—This paper analyses how the new “creative class” community consisting of multiple professional groups and societies is shaping itself up, using a professional community of Information Technologies (further abbreviated as IT) specialists as a case study. The qualitative research of IT professionals’ community demonstrated that the professional community of IT specialists in Latvia is not homogeneous. Differences related to age entail differences related to professional experience, ambition, and motivation. IT professionals in Latvia have a strong professional identity.

Keywords—digital economy, IT, professional community

I. INTRODUCTION

In 2002, Richard Florida in his book “The Rise of The Creative Class and How It's Transforming Work, Leisure, Community and Everyday Life” [1] described new social phenomenon common for all developed economies. it is the shaping of a new social class that plays a significant part in digital economy. Florida called it “creative class” and offered Creative Class Theory [2].

He pointed out that creative class in North America makes one third of the work force. The actuality and the need of paying special attention in studying creative class and IT professionals especially can be explained by the fact that creativity along with development of IT has become significantly demanded in contemporary economy; people belonging to creative class work with innovations and create fresh ideas – they become the engine of contemporary economic development [3], [4]. Therefore, for organizations it is important to attract such people, retain them and motivate them to work. This will guarantee the development and competitiveness in contemporary market [5], [6].

Nowadays, human capital and technological development form the new type of the economy inherent to postindustrial system – innovative economy. Due to globalization technologies diffuse around the world rapidly, new centers of Research and Development (R&D) grow worldwide [7]. At the same time technologies bring the most added value and let economies stay competitive. Innovative economy demands innovative creative professionals that are not just ready for the changes but ready to change [8].

In permanently changing environment, the significance on Information Technologies cannot be underestimated. New technologies allow reaching optimization of business

processes and production, minimization of costs, and maximization the outcome. Traditional approaches are shifting towards innovative activities by means of distribution of new technologies in all areas of human activities.

Production of hardware, software, implementation of digital tools to day-to-day operations are giving a great push to development of phenomena of digital economy. Digital economy becomes more widespread and significant in contemporary society. The growth of digital sector is directly connected with the development of IT. While being sometimes compared to the term “information economy” [9], [10], [11], which is researched more, digital economy focuses on the services of goods, which production involves and depends critically on digital resources.

There is a huge enthusiasm regarding digital economy and its growth [12]. Despite the fact that the role of IT is discussed in various researches, the context is constantly changing [13]. The significance of IT professionals in making successful business in era of knowledge-based economy is obvious. However, the key to productive partnership and business results is in how workers of various types of activity: creative, technological, managerial interact with each other [14].

II. METHODOLOGY

The article is aimed using the example of professional community of Information Technologies (further in the text IT) professionals to demonstrate how creative class is being shaped in Latvia, of which professional groups and society layers the new community, which plays significant part in digital economy, is creating itself .

The process of formation of professional community can be viewed from different methodological positions, but in this case, we use the constructivist paradigm [15]. This paradigm assumes that professional identity (like any other identity) is created through the mechanisms of social interaction [16]. In this case, we consider the process of professional interaction, which includes obtaining vocational education, building a career, attitude to one's own professional qualifications and competence, an idea of fair remuneration for work, and effective motivation to work.

In modern social sciences (including modern management), the method of narrative analysis is usually used to study the lifestyle and culture of specific social

groups . The purpose of this analysis is to understand how a profession is created in a professional community and a professional hierarchy is formed. It also brings an awareness of such concepts as “prestige”, “good work”, “decent pay”, “good governance”, “rules of the game”.

The reconstruction of professional identity is based on the interpretation of experience by professionals [17], [18], [19]. The result of the narrative analysis is a description of the meaning and significance the professionals assign to different stages of their professional careers.

The search for respondents for the interview was carried out in two stages:

For the first stage, the respondents who work in the field of IT technologies were selected using the snowball method, and were invited to take part in the study. During the second stage, a sample of maximum variability was selected from the prior available respondents. A sample of maximum variability is a goal-oriented sample, aimed at describing and encompassing the central aspects that cover the majority of all cases. This type of sampling for qualitative research suggests that the principle of maximum heterogeneity is observed when used.

In this case, the sample was formed in such a way that it represented different age groups, professional groups, geographical diversity, and different representations of gender. As a result of the filters used, a sample of 30 people was created: 10 people of ages 20 to 30 years old, 10 people from 30 to 40 years old, and 10 people over 40 years of age. The sample included representatives of super professionals (5 individuals), creative workers (18 individuals), and technical professionals (7 individuals). There were a total of 25 men and 5 women in the sample.

The Quirkos package was used to analyze the interview, with coding and linking procedures carried out. Codes were formed based on the objectives of the study. As a result, the following codes were included in the analysis: “education”, “past work”, “good work”, “why do you like the work”, “what prevents work”, “change work”, “where you are in 5 years”, “learn new things about the profession”, “salary”, “motivate to work”, “effective threats.”

III. RESULTS

The results of the study show that the trajectory of those that result in becoming IT professionals depends very much on the age group of the respondents. There are three typical scenarios for those joining this professional group. The first scenario describes the process of how a hobby turns into a profession, and this is the typical path of progression for individuals under the age of 35 years. The second scenario is associated with the arrival in the profession from another professional group. Such a scenario is generally found among those who have received higher education in the late 90s to the early 2000s, when economics, law education, logistics, and management were popular subjects. Lastly, the third scenario is typical for those over 40 years of age who received professional education related to programming over an extended period of time, sometimes even in the Soviet Union when gaining experience working with computers, though acquiring and utilizing a completely different set of skills for tasks at the time. Some of these individuals left the profession for a while, later returning to it. Others have

worked in this area the entire time, consistently. However, many in this category were forced to spend significant effort in order to retrain, gain new knowledge and skills, and remain competitive in the market of IT technologies.

Consider these scenarios in more detail.

A. Scenario: "From the hobby to the profession."

For many IT professionals, as the survey results show, the path to this profession began in younger and even childhood years with hobbies involving computers, computer games, website creation, programming, etc.

“In fact, like many people in this field, it became interesting to me even at school. ...trying to create some sites and games by myself, and so on...” (Male, 24 years old)

“Initially, it was not my main activity, but a hobby. Because I, in one way or another, have been connected with IT all my life. But at that time, it was not for commercial purposes, and not for earnings, but for me.” (Male, 33 years old)

These excerpts from the interviews show that some individuals have been interested in computer technology since childhood, but did not plan to escalate this hobby into their main profession; their regular work was associated with another sphere of interest. However, having tried themselves in another specialty, they realized that being involved in IT technologies allowed them to feel more professional, gave them more pleasure from their profession, and brought more material income.

“When I started, I realized that I wasted a lot of time for nothing... it is very good money; it's profitable. And I have more freedom.” (Male, 30 years old)

“Then at one moment, I thought: 'After all, you can earn the money!' And I started looking for orders, precisely for my specialization, which I chose myself.” (Male, 39 years old)

This scenario is more typical for younger people, those under the age of 35 years. However, in our sample, there were representatives of the older generation who also came to the profession because of their children's computer hobbies.

“The path to IT technology began in my life at the end of the 90s, when they began to bring to our country, more or less, personal computers... I was already interested in computers. I studied literature, which wasn't much, in libraries.” (Male, 44 years old)

As the results of the research show, such a scenario is characterized by the absence of specialized higher education in the field of IT technologies, and sometimes even higher education in general.

“I analyzed the vacancies, looked at which vacancies did not require a specific higher education, which I did not have ... The only area in which this was not required was programming.” (Male, 24 years old)

IT technologies are the rare specialty when having a diploma is less important than professional skills. As the respondents noted during the interview, employers in this field pay more attention to experience, to what a person can

do and how he performs his test tasks, than to evidence of formal education. This creates a meritocratic professional environment where success is deserved and where professionalism determines the position a person takes.

It should be noted that there is another trend, which is typical for significantly younger individuals (25 years and below). This trend is that, being fascinated by IT technologies, young people immediately consciously choose a university that provides professional higher education in that field. The question arises, the answer to which will be available only after some time, which of the young IT specialists will be more competitive in this market: those who have a specialized education or the talented self-educated worker?

It can be assumed that the new generation coming to the labor market in the field of IT technologies will be more successful because, aside from their programming skills, they have knowledge in the field that is difficult to master on their own.

"I graduated from a technical university with a degree in computer-aided design systems.... Since I have a mathematical education that allows me to use mathematical methods, this puts me a little higher than a simple programmer." (Male, 26 years old)

B. Scenario: "Changing professions."

In the mid-1990s and early 2000s, non-IT professions were very widespread. The professions of economists, lawyers, managers, etc. were especially popular. The results of our study show that the middle generation (35-45 years of age) is characterized by a scenario of abandoning the professions that were chosen earlier during these times and transitioning to the sphere of IT

The desire to change professions was usually due to the fact that it was difficult to find a job with good pay for that previously chosen specialty or that the respondent was not satisfied with the content of the other job.

"First of all, it is a pleasure to work in IT. You are surrounded more often by adequate people with a lively mind. These people are modern. I feel comfortable in this atmosphere. Now it is very good work because they pay well for it. There is very high demand for good workers." (Male, 42 years old)

The work of an IT professional in modern Latvia is prestigious and highly paid. Almost all respondents spoke about this in interviews. The labor market is wide enough, and it is not difficult to find a job for a skilled specialist. As some respondents noted, employers are often looking for employees, especially ones of a high level of professionalism and skill. Therefore, the IT technology market is very attractive for active people of other professions who are willing to invest their time and their material resources in order to achieve success in this particular market.

As a rule, such people do not become super professionals, team leaders, or middle and senior managers. They work as programmers, as system administrators. They do not have a completed specialized education; they received their knowledge independently. Therefore, they cannot compete with people who, firstly, have a specialized

education, and, secondly, have worked their entire professional life in this market. However, they value their work, receive satisfaction from it, and do not plan to change it.

C. Scenario: "Professional forever."

In the modern IT technology market, there is a cohort of professionals who have received professional education in this field during the Soviet era, and all of their professional activities are related to IT technologies.

"I am connected with IT technology from school. For the first time, computers came to us in 1986. So, from the 86th year, it is possible to consider me a programmer. School for two years, then college, and then work, work, work." (Male, 47 years old)

Unlike the respondents who came into the profession in accordance with the two scenarios described above, these people often made this decision, not independently but, under the influence of parents or teachers.

"I started to work by chance. My parents sent me to college... They said that IT was fashionable and for me to go study there... Therefore, I believe that I got into IT accidentally." (Female, 56 years old)

During their careers, the profession of an IT specialist has changed its content several times. Specialists from this generation were forced to constantly retrain and improve themselves, making them very adaptive and receptive to new information. Many of them have overcome the difficult path from being in the lowest positions to becoming super professionals.

Thus, older people who have survived professionally in this field are very motivated, very professional, and much focused workers. This is what allows them to maintain their position in the labor market and compete with younger colleagues. This distinguishes the IT technology market from other markets where, as a rule, older individuals lose to young professionals.

It is important to note that specialists over 45 years of age, if they have not yet taken a management position and no longer have ambitions generally become a team leader, a manager, or another similar position. They appreciate the opportunity to do what they love, they appreciate creativity involved, and they appreciate the meaningfulness of their activities and the benefits of it.

IV. CONCLUSION

The results of the study show that the professional community of IT specialists in Latvia is not homogeneous. Differences related to age entail differences related to professional experience, ambition, and motivation. IT professionals in Latvia have a strong professional identity. This identity is associated with certain professional skills, the availability of professional knowledge (knowledge, not formal education), the attitude to work, and a system of incentives to work. There are three generations of Latvian IT professionals that differ in the way they enter the profession, education, value orientations, but not professional culture and motivating signs.

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