100 years of Romanian Education: Failures and Achievements

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Romanians tend to define themselves as a nation of "education lovers". Despite this positive self-perception, it is no secret that the educational system is incapable of improving the potential of the Romanian society. Recently, in December 2018, the Presidential Administration of Romania launched a public debate regarding the way in which education should develop in the next 20 to 50 years. Entitled "România Educată", the initiative hasn't succeeded in generating a national debate regarding this issue. In other words, the Romanian society and political class are not convinced and aware of the fact that education can indeed be a mechanism of social change and of economic development. Nevertheless, in order to "contextualize" and to emphasize an apocalyptical image upon the current system of education in Romania, critics usually tend to uncritically praise previous systems of education from Greater Romania or from the communist regime. The result is a sort of antithetic discourse that offers little incentives for the present debate. For this reason, the main challenge of this study is to find out if the Romanian system of education of the last century was, indeed, conceived as a true investment in the human capital. No matter how vast the subject may sound, the authors would focus on the evolution of the educational ideal in the last century, while contextualizing the performance of the educational systems with statistical and comparative data.

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Keywords: Romania, 20th century, education, human capital

At present, Finland is considered to have the best system of education in the world, a system which many countries around the world have been trying to copy. A legitimate question would be: Why have they chosen to massively invest in education? The standard answer all Finnish are most likely to provide you is that they have acknowledged they have only two resources in their country: forests and people. In consequence, they chose to invest in the most important resource for their future development.

For Romania, the contemporary period represented a set of attempts to change the agrarian character of society. From a socio-economic point of view, the 20th century was the period in which the peasant had to be empowered with new skills and competences to enable him to escape poverty. The interwar period began with two major reforms aimed at re-establishing Romania's social edifice on new foundations. Thus, electoral reform and land reform hastened the transition from a "neo-serfdom" agrarian society to one of independent peasant farms. Later, communism saw in the collectivization of agriculture the vital mechanism by which the peasantry could be pushed towards industry and, implicitly, cities. The resulting "(r)urbanization" has radically changed Romania's socio-economic landscape in just four decades, with huge social costs



and raising many questions regarding the viability of this development model. The transition period paid the bill, with the 1990's witnessing a unique phenomenon in Europe: Romania's "re-ruralization", followed by a strong wave of emigration to the West of Europe.

The question we want to find an answer to is: was education conceived and implemented as a mechanism of social change in the last 100 years? At a time when the role of education is part of an increasing debate regarding the future development of Romania, the authors propose an overview of Romanian education as a public institution of modernizing society, by presenting a long-run evolution of the educational ideal, complemented with some statistical data and the political implications of such approaches. From a theoretical point of view, the authors propose an "institutional" approach to educational policies in the last century, interested in capturing the mechanisms of socio-economic emancipation through education and showing how the trajectories of social emancipation were defined. "To make people learn a book means, from an institutional perspective, to put in place powerful incentives to develop the desired behavior"¹. Consequently, "human capital, particularly attained through education, has been emphasized as a critical determinant of economic development. In addition, the level of educational attachment has a strong impact on social and political outcomes, such as infant mortality, fertility, education of children, democracy and rule of law"².

Since "politics and political institutions are the ones who decide which economic institutions a country holds"³, a first aspect that we seek to highlight is the vision regarding education under three different political regimes. The enumeration and comparison of these educational ideals – from interwar, through communism and to the current one – actually captures the vision regarding the development of society, as proposed by the political elite.

However, the difference between the political ideal and the social reality is found in the budget expenditures that a state allocates to a sector, as in the case of education. Such a retrospective gaze on the budget of education may reveal the real weight of this sector in state evolution, beyond the political rhetoric. Thomas Piketty observed that over the course of history, the only mechanism of convergence both international and internal – was the knowledge transfer. "In other words, the poorest people catch up with the richest in terms of achieving the same level of technological knowledge, qualifications, or education", which depends on "the ability of countries to mobilize funding and institutions that allow massive investment in the formation of their population, while guaranteeing a predictable legal framework for the various actors". On a long-term basis, "not minimum

wages or salary scales are the ones that make wages to increase five or ten times; in order to achieve this kind of progression, education and technology are the determining forces"⁴.

Education in Greater Romania 1918-1940

The entire interwar period was dominated by the necessity of unifying the new state through education. The "cultural offensive" of dr. Constantin Angelescu (the longest-serving minister of education in interwar period, holding this position between 1922-1926 and 1933-1937) aimed to culturally unify all Romanians. From his point of view, school was called to chase "the unification of the minds of future generations, forming conscious citizens, with the same tendencies, with the same aspirations, and with the same ideals. By this, we sought to form the soul and to shape the minds of these generations, developing in them the national feeling and the love for the country"⁵.

His opinion was criticized by other ministries of education, who observed that education lacked in preparing the pupils and graduates for everyday life. One of these critics was sociologist Dimitrie Gusti, who noticed that, after 10 years of such policy, the entire system was in crisis. The ministry of Dimitrie Gusti (June 1932 - November 1933) meant in particular finding solutions for the systemic crisis of education at all levels: a primary school affected by a very low school frequency, "that all the primary education in the villages was almost illusory"; a secondary and vocational school turned into "institutions that issued passthrough certificates from one class to another without student selection"; and the University, becoming a "workshop for non-departmental teachers, for lawyers without trial, for physicians without patients, or for priests without parishes". Gusti's reform project aimed at adapting education of all degrees to the specific needs of the Romanian social life. His purpose was the "rationalization of education" by stopping the phenomenon of extensive development and by creating a mechanism for the selection and orientation of school population, especially towards its practice finalities⁶.

There were multiple reasons for reorienting education. First, education contributed to the amplification of urban/rural⁷ cleavage, while the extensive development of secondary education highlighted the lack of a precise function of the secondary education in the productive life of the nation: "The education provided by the encyclopedic high school offers a great amount of disparate pieces of information", lacking in forming specific competences. Therefore, high school "has become a good school for everything in the last 10 years", concluded Dimitrie Gusti in 1934. Since it was the education of anything, it was somehow natural for the secondary education to be scarcely selective⁸.

In Dimitrie Gusti's ministerial team there was also the sociologist Petre Andrei, professor at the University of Jassy. In one of the conferences he held from this position, Petre Andrei approached the issue of Romania's cultural policy, noting the incapacity of the Romanian school to create the so-called "peasant bourgeoisie" which was considered to improve the situation of the countryside, especially in the Old Kingdom. Instead, as a matter of fact, the problem of the unity of all Romanians in Greater Romania was threatened by the inter-regional disparities. If Transylvania and Bukovina were much more socially developed (due to their cultural and political heritage before 1918), the Old Kingdom, along with Bessarabia, was marked by the (co)existence of "two special worlds": a predominantly urban cult blanket "that could honor the culture of any European state", on the one hand, and "down, close to animality, the peasantry", on the other hand. Since after the Great Union of 1918 education was designed to only take into consideration the interests of the urban population, it was somehow natural that the cleavages between the rural and urban sides would increase. "What was wrong with our conception is that we wanted to make people who go to school prepare themselves to get out of the class they belong to; but this is not the purpose of school, but rather to prepare them to become better, better in the class they belong to, and only those who have exceptional skills can move on, gradually rising to other classes" 9, concluded Petre Andrei.

The main conclusion was that school failed to break through the social fabric. The inability of the school to inoculate the cooperative spirit and economic initiative opened the way for the development and even the generalization of a "Romanian individualism", that "does not involve the spirit of initiative in economic life and it involves too little spirit of independence in political and social life as well"¹⁰. This was the manner Constantin Rădulescu-Motru described the peasant psychology. Nevertheless, the philosopher didn't forget to point out that, due to this tradition of economic and social conformism, "the Romanian villages have lasted" throughout history! Needless to say that history is not necessarily about lasting, but about trying to evolve.

Anyway, one of the most important consequences of such an inadequate education was the economic one, i.e. a declining agricultural yield. The plan of the political elite to create a "peasant bourgeoisie" and an economy that would especially harvest agricultural products turned to be a failure. Greater Romania remained a predominantly cereal country, but in the context of dropping international prices for cereals (especially during the economic depression of 1929-1933), this characteristic turned to be an economic handicap¹¹.

In order to face such challenges, Dimitrie Gusti proposed a reform plan that was supposed to adapt education to the specific needs of social life and to create a selection and guidance mechanism for pupils, in order to make them embrace theoretical and, in particular, the practical lines of studies. This plan for rationalizing education was supposed to reduce the discrepancies between the rural and urban areas of Romania and to develop a sense of entrepreneurship in the new generations. The fact that many secondary school pupils and students were choosing the theoretical branches of studies was not a good option for a society struggling to find incentives for escaping underdevelopment and poverty.

An essential role in Romania's social and economic change could be played by professional secondary education. In Romania, however, at the end of the 30s, the number of students in vocational schools represented barely 2% of the total number of primary school pupils, unlike Denmark where this ratio was 12%¹². Even though a law on industrial secondary education was enacted in 1936, and, later on, technical higher education was concentrated in polytechnics, the formation of human capital in Romania consisted mainly focused on the formation of future public servants. The great concern and disappointment was that education didn't succeed in stimulating entrepreneurship in a country that had many resources to capitalize, but was still lacking social and economic complexity. Yet, industry and commerce were still disregarded in Romania, although "time has shown that these branches of activity can give solidity to a country"¹³. That was why "this idea should come into the head of youth: that everyone will go as far as possible only through his own work. It must boil the ambition in every one of them to reach as far as possible in economic life and not to become public servants in the bureaucratic system of Romania"¹⁴.

The statistical data reveal the failure of the "cultural offensive" policy. In the 30's there was an increasing tendency toward gender and social disparities in terms of schooling among young people. According to the 1930 census data, those with a minimum level of education prevailed in rural areas (94.2% were primary education graduates), followed by a small percentage of secondary education graduates (5.4%) and a tiny percentage of higher education graduates of 0.4%. On the other hand, 68.5% of the literate population in the urban area had primary education, while 27% held a secondary education degree and 4.4% were higher education graduates. "These ratios reveal a gap between rural and urban areas, with the latter having 5 times secondary education and 11 times higher education than the former"15.

As for the budget allocated to education, one of



the strongest myths regarding Greater Romania is the big amount of National Income (venit național) allocated to develop this sector. It is true that the budgetary allocation for education followed a growing trend in the entire interwar period. Still, there are some peculiarities we should emphasize in order to properly "calculate" the real allocation for education. First of all, the educational system was the biggest employer in Greater Romania, with around 100,000 people working as professors, teachers or auxiliary personnel. When the economic crisis struck Romania, there were serious financial shortages, with the state forced to severely reduce the incomes of public servants and unable to pay salaries for several months.

On the other hand, in the '20s, a big part of the public instruction budget was allocated for building new schools and facilities. Later on, in the '30s, the education budget increased, but one should not neglect the effects of economic depressions, like inflation or the rise of the costs of living. In addition, there were new institutions financed from the education budget, such as Straja Țării (Sentinel of the Motherland), an institution used for propagandistic reasons by King Carol the 2^{nd} .

Nevertheless, in comparison with other states from Eastern Europe, one should point out that Romania allocated important public resources to this sector. Still, Romania had a very small ratio of pupils in the total population, of about 14%, with 5-19 age groups representing around 30% of the entire population.

Education in Communist Romania

Education in the post-war period was characterized by a general development in all its aspects such as: the diversity of forms of education; new types of education, specializations and disciplines; the increase of the number of students and graduates; and the increase of budget allocated for the development of educational infrastructure. The educational system was developed under a new political regime that gradually tried to and succeeded in controlling the society as a whole. Under the limitation of a communist "recipe" for development and with some local "ingredients" (adaptation to the realities and the needs of Romania), very few political leaders imposed decisions for the well-being of the population, including those regarding the educational system.

Because of these reasons, at first it was a slow development, characterized by the reconstruction and the adaptation to the Soviet model of education, which was later followed by a process of reshaping education according to the special needs of the Romanian society. It took 30 years (Law of Education of 1978) for the State to have a clear understanding of the way the educational system should follow. The process of "politehnizare" (emphasis on technical higher education) decreased the number of institutions and study lines that were not related to industrialization, in favor of science or engineering. In its effort to lift the cultural level of the working class, the communist regime introduced elements of andragogics, like evening and extramural studies, available only for those already with a place to work. On the other hand, this policy of mass education was performed to the detriment of full-time studies.

Nowadays, the general perception of the Communist system of education is that it was an efficient one, helping everybody to master a "craft" and thus having "a place to work". A person only had to attend the compulsory 8 to 10 years of study, followed by studies in secondary schools or higher education institutions, because afterwards the State would allocate a place to work for everyone. Nevertheless, this was all pure propaganda.

No matter how simplistic it may sound, it should be pointed out that the Communist system of education had numerous problems. The increase of population and of compulsory years of study required huge investments in the educational infrastructure: new buildings, new materials to furnish them accordingly to the pedagogical needs (classrooms, laboratories, workshops, and libraries), the increasing need of places to study and of qualified teaching staff, the introduction of textbooks and suitable curriculum and so on. In such a context, shortages were almost inherent. If there were enough buildings, there was a lack of didactic materials; and if there was a generous tuition figure for some specializations, it soon proved that there was not such a great demand. The most striking case was that of engineering studies, a line of study the communist regime needed for the industrial development. It was also true that for the communist regimes in general industry was part of the propaganda mechanisms, since it was conceived as the only way of escaping underdevelopment. However, soon engineering studies started to become unattractive for the young secondary education graduates. In order to correct this shortage, a sponsored social mobility program was enacted by the Romanian state.

On the other hand, one should not neglect the expertise of some political deciders regarding the educational system. The discussants didn't hesitate to express their discontent regarding the way educational policies were implemented. In these private meetings, there was usually little place for propaganda. In fact, we must conclude that the political leaders were quite aware of what they intended to develop education into and what was truly achieved. We can also get some hints in this direction following the numerous legislative acts regarding the educational system and its need for orientation towards, for example, "politehnizare". Today one can appreciate that the communist educational system was built according to the needs of the planned-economy system, and especially for the needs of the industry. On the other hand, although there were strong arguments to support such a vision, we should state that the political leaders had different opinions regarding this issue, demanding for new incentives in order to diversify education.

As for the "working class" society, the main postulate of the political leaders was that the communist society was founded on a new ethics regarding work. After graduating almost any form of education a person not only had the right to work, but he was supposed to work. Somehow ironically, in the rural areas there was also the pressure of the family in this direction, which made many young people give up schooling, thus jeopardizing the Communist Party program of eradicating illiteracy. The rural side of Romania was barely changed in its most intricate characteristics, despite the urbanization ratio during the communist regime.

The Communist educational system had its privileged subjects: the working people, targeting especially the industrial workers. There were all sorts of facilities for them to attend a form of education: evening and extra-mural courses, special institutions or places of study etc. In the end, although statistics do not mention cases of persons without a working place (officially there was no unemployment in any Communist country), we know that this didn't fit reality since there were many persons unable to write or read. Also, those who graduated an education institution in Romania were not fully adapted to the economic needs and some of them were not content with their job (e.g. conservatory graduates forced to work in a gymnasium school as music teachers). According to the political leaders, the ideal of education-research-production ("învățământ-cercetare-producție") was far from being achieved, although it was "clamored" by propaganda.

What Communist regime succeeded to achieve was an educational system shifted towards the needs of a planned economy (State-controlled and industryrelated). A strong network of educational institutions was developed, which meant many more literate people, although this didn't mean that the graduates really possessed adequate and updated knowledge, required by the labor market demands. Eventually, the communist system of education solved only a part of the historical problems of the Romanian society and much less of the current problems of '70s or '80s in Romania.

However, a pattern in the discourse of the educational planners of those times was the idea of educational stock, considered to be the first step for an enduring economic growth. Vladimir Trebici, the founder of demographic studies in communist Romania, promoted the prominence of "intellectual capital" at the expense of "physical capital". "Therefore, the analysis of the active population by the level of training and its *educational stock* is of overwhelming importance in the general context of increasing the economic efficiency of education" ¹⁶, stated Trebici. It should be stated that the notion of intellectual capital used by Trebici shared many common characteristics with the "human capital" concept of Gary Becker, publicized in his seminal book that was first printed in 1964. One can say that the Romanian educational decision makers were aware of the changes that occurred at international level and especially in the capitalistic world.

The origins of the debate on the economic efficiency of education started in Romania in the mid-1960s. One possible reason seems to have been the modest economic performance of Romania during Gheorghe Gheorghiu-Dej. The five years plan of 1965-1970 was supposed to be the expression of a new political leadership, taking Romania out of economic crisis, without circumventing Western support. An example in this direction was the request to the United Nations and International Labor Organization in 1966 to develop a program whereby factory directors were supposed to be trained in order to develop their leadership skills throughout the economic process, including marketing and sales¹⁷.

Starting with 1970, "Forum" review published many articles regarding the "efficiency of education". Miron Constantinescu, the most influential sociologist in those times, succeeded to found a Sociological Laboratory at the University of Bucharest, that had as its major research subject the "economic efficiency of education". In this institution he gathered many young researchers like Petre Burloiu, Dan Grindea, Mircea Manolescu or Ștefan Costea¹⁸. Petre Burloiu, for example, drew attention to the need for "ergonomics of education", a first step being the extension of compulsory schooling, from 8 to 10 years. The step was required by technological and scientific progress, imposing a longer time to accommodate and to acquire the knowledge necessary for active life, and a careful selection of information provided to the pupil or student. The correction brought by the duration of schooling had to be correlated with a curricula reform, since "we must give up overloading the memory with details that pupils or students will not need after completing their studies. In the future, education will have to be the primary task of teaching people how to think scientifically, and how to actively look for and select the information they need"¹⁹.

In 1971, Vladimir Trebici published a book regarding the "Population of Romania and the Economic Growth", trying to scientifically demonstrate the causal link between education and economic



production. For Trebici, the concept of "educational stock" was defined as "the sum of the years of study that has been spent by the entire population"²⁰. According to the statistics he provided, in 1970-71 there were about 4 million pupils and students in Romania, i.e. 20% of Romania's population. "In relation to the inter-war situation, the proportion of upper-secondary and higher education students has grown significantly: from 6.8% in the school year 1938/39 to 24.1% in the school year 1968/69"²¹. Hence, there was a strong need to reconfigure the education paradigm, especially due to the demographic explosion, as well as due to the new course of economic development of the world: technological and scientific explosion.

"The classical triad writing – reading – numeracy is no longer a professional guarantee", stated Mircea Malita. And it ceased to be a guarantee for the young people, and for the adults who used literacy programs as well. What was really needed was a "functional alphabetization", i.e. preparation for the active life of the individual. Malita expressed his vision while he held the position of minister of education, a time when he founded "The International Centre for Studying the Future and Development", where specialists like Solomon Marcus or Mihai Botez activated²². For the educational planners in communist regimes the system they were trying to shape was supposed to show the superiority of the social system as against the capitalistic one. It was true that education was envisaged more and more as an investment rather than a social service. And, unlike capitalist societies, where social mobility was mainly affected by "private property on means of production, in our society the social position of a person is based on the essential content of his everyday activity" ²³. Thus, education had to play a decisive role in the type of work and then in the hierarchy of organizing activities in the socialist society of the future. In other words, communists tried to present their educational system as the triumph of meritocracy.

Another aspect the communist propaganda emphasized was the lifelong learning idea. The school of the future meant technical training for a profession, only after the child had first been oriented on scientific criteria to the profession for which he possessed native skills. However, in an ever-changing labor market, man was supposed to learn throughout his entire active life, while schooling would cease to be just a simple cultural act: "In the years 2000, in the current vocabulary, schools will not be listed along with hospitals and theaters, but with businesses and factories", anticipated Mircea Malita. In the predicted age of robots and artificial intelligence, "the intellectual will be the worker of the future", since the differences between the intellectual and the manual work will disappear, with the latter incorporated by the former. Thus, an "old expectation of socialism" would be accomplished²⁴.

The focus on the technical formation of the human capital in communist Romania was legislated through the 1978 Law of Education. According to this law, "The foundation of school is the principle of poly-technism, the close connection of labor, education and research, which are the three main factors for the construction of socialism and communism in our homeland, for the progress and civilization of mankind. Ensuring polyqualification, the ability to move from one specialty or activity to another contributes both to the satisfaction of the general interests of society as well as to the multilateral development of the human personality"²⁵.

Education on transition: mental infrastructure in digital age

With the end of communist regime a new page in the history of education in Romania was turned. Almost 50 years of planning in the education system in a communist matrix proved difficult to be erased in just a few years. It proved hard to decentralize the system, or to ensure a certain degree of quality in a society on its way to freedom and democratization. The general context also changed radically for Romania and the world. New challenges were coming from a troubled economy and from a society unable to face the pace of change and the great demand for some educational branches. The solution to these challenges was the development of new institutions, specializations, or forms of education, along with an increasing number of cities where (higher) education institutions were founded. But the changes the educational system really needed were postponed, since the Romanian state had no clear strategy regarding the way the school of tomorrow should follow.

It was the case of the Education Law of 1995, the first law in this field granted after 1989. The law stipulated that the main objective was the transmission of knowledge, but, in an age when the cadence of the scientific information flow had increased enormously, such an approach soon became obsolete. An important role in reshaping education was played by the Program for International Student Assessment [PISA] that shifted education from information toward embedded skills evaluation.

Starting from here, a Presidential Commission was entitled to design a new law of education. A preliminary report released to the public opinion emphasized that the educational system of 2007 "threatens the competitiveness and prosperity of the country since it was inefficient, irrelevant, unfair, and of poor quality"²⁶. The immediate response of the political elite was quite a prompt and hopeful one: in March 2008 all parliamentary parties in Romania signed the Pact for Education, committing to support

the implementation of a long-term strategy for the development of the Romanian education system. The gesture was rather an electoral one, as all subsequent governments merely postponed or violated some of the provisions of this pact, one of which refers to the granting of 6% of GDP for education and research.

In 2011, a new education law was passed but in the last 8 years it suffered so many "amendments" that its impact was severely diminished. Although the law emphasized the importance of building the "mental infrastructure" of Romania by promoting an education based on acquiring skills and competences (and not just simply accumulating information), Romania still struggles to find a solution to the problem of attendance. Because of the poverty in some rural regions of Romania, it is estimated that each year around 40,000 pupils from the same age cohort cannot benefit from a good and effective educational training. "The main challenges a student at major abandonment risk faces are: family income to the limit of subsistence; low levels of education in the case of the parents; lack of minimum home study conditions (situations with a much higher frequency in rural areas); or the unemployment situation of one or both parents (a problem encountered mostly in the urban area)"27. In other words, how can you claim school performance or even attachment to the socio-human values promoted in school from the children living in poverty or at risk of social exclusion? In a country where 1 in 5 Romanians are poor or at risk of falling into poverty, the values the educational system tries to disseminate are most likely to become ineffective.

When education is considered a cost, not an investment

It is not easy to encompass a century of evolution of the Romanian educational system in a few pages, even less to draw some firm conclusions. However, in order to present an objective image of the current state, some statistical indicators measuring the evolution of the educational system can prove to be adequate. Most importantly, these statistical indicators can prove helpful in placing Romanian educational system performance in a comparative picture with other European countries.

In Education and Training Monitor for 2017, Romania ranks above the EU average for 18-24 yearolds who drop out of school (18.5% versus 10.7% EU average). Taking into consideration the population of over 15 year olds, the differences are even bigger. In terms of reading and understanding, 38.7% persons of 15 years or more in Romania encounter difficulties in reading and understanding, 39.9% in Mathematics and 38.5% in humanities. These ratios are well above the EU average: 19.7%, 22.2%, and, respectively $20.6\%^{28}$.

Another important indicator is Human Development Index (HDI), a statistical indicator used by United Nations in order to depict the future expectations regarding the development of societies around the globe. Comprising indicators related to life expectancy, education and income per capita, HDI was also criticized for using misleading formulas. However, according to the 2015 ranking, Romania was included in the "very high human development" countries, although in the 50^{th} position, among the last in its class. According to the calculations that formed the basis of this index, a Romanian citizen spends 14.7 years out of his 74.8 of life expectancy in school, while more than 85% of the population over 25 years graduated at least high school²⁹.

Romania is the last in the rank published by the Digital Economy and Society Index 2018. The human capital indicator in this case consists of the use of internet and the average graduates in STEM (Science, Technology, Engineering and Mathematics). Romania was the last country in the EU (with 31%) while the EU-28 average was 55% (Finland had the highest DESI score of almost 80%)³⁰. At least 38% of Romanians do not use the Internet once a week, while around 30% never use it. The report found that those with low education, along with those with low wages and the elderly are the most vulnerable social groups to the risk of digital exclusion. The human capital indicator revealed that men possess minimal knowledge of using the Internet to a greater extent than women. On the other hand, 29% of Romanian citizens have minimal knowledge of internet use, while 29% of local workforce has no digital knowledge.

Paradoxically, Romania has information and communications technology specialists in one of the highest grades of the country's total workforce at EU level (2%). In addition, over 40% of all Internetconnected households have ultra-fast connection, Romania being the second EU country in terms of fast connections, after Sweden³¹.

The switch to a more updated educational system in Romania after 1989 was in a good proportion misconducted by intimate factors: politicization of educational system, unsustainable and irrational educational reforms, a very low level of financing, among many more. Romania was caught off guard: it did not complete a full orientation to the needs of a different society by the 2000s when it soon had to adapt to the Bologna cycle of studies.



The future of education is digitization not memorization

The 21st century will be the century of the fourth technological revolution, the informational age (with roots in the 70s and the advancement of computers technology). Therefore, a prosperous economy will most likely be possible through creative industries, capable of harnessing online information to the benefit of the consumer/customer and of the entrepreneur. "Today, wealth consists mainly of human capital and organizational know-how. Consequently it is difficult to carry it off or conquer it by military force"³².

.But for this to happen there is a strong need for a new paradigm of the educational act. As many observers noticed, in Romania, there are still many classrooms that have more in common with the educational act performed in the past century than with the challenges of the future. Needless to say that education has to become an active process of acquiring cognitive tools that open your way to new knowledge, and not a mechanism of memorization.

.Mihai Nadin shocked the public and the scientific world when he published in 1998 "The Illiteracy Civilization", in which he talked about the need to change the educational paradigm in a world that produces "in a minute more information than in the entire history of man on earth". The author spoke about the necessity of a major change: "the transition from the container type of education – the child being the empty container that needs to be filled with language, history, mathematics, and so on - to a heuristic education", in which the relationship of subordination between the teacher and the student should be replaced by a "cooperative effort"³³. Only with such education, the individual can face the challenges of the future, that is, he will be endowed with human capital. We should not be totally pessimistic regarding the future of education in Romania or in the world, as well. History in the long run demonstrated that change was and will be the only constant of the human being. As for education, we should "switch to teaching the four Cs: critical thinking, communication, collaboration and creativity. More broadly, schools should downplay

Annexes

	Secondary education	High school	Vocational and apprenticeship education	Post high school and foremen education	Higher education
1938/1939	17.225	7.176	2.178	0	5.152
1950/1951	81.987	13.214	24.783	13.926	9.510
1960/1961	182.216	46.797	30.236	11.082	11.167
1970/1971	360.887	101.048	99.007	18.025	30.740
1980/1981	371.819	174.983	69.951	16.022	38.615
1990/1991	335.831	188.732	115.697	2.259	25.927
2000/2001	301.695	161.106	78.669	33.469	76.230
2010/2011	229.609	202.160	34.733	21.211	186.900
2015/2016	179.703	152.741	10.523	34.134	121.788

Evolution of graduates in Romanian educational system

Reference: Anuarul statistic al României 1996, 2002, 2012, 2016, 2017

Census year	Population	Urban	Rural
1948	15.872.624	3.713.139	12.159.485
1956	17.489.450	5.474.264	12.015.186
1966	19.103.163	7.305.714	11.797.449
1977	21.559.910	9.395.729	12.164.181
1992	22.810.035	12.391.819	10.418.216
2002	21.680.974	11.435.080	10.245.894
2011	20.121.641	10.858.790	9.262.851

The dynamics between urban and rural population in Romania

Reference: Tudorel Andrei, Elena Mihaela Iagăr (coord.), Recensământul populației și al locuințelor 20 octombrie 2011, vol. 1: Populație stabilă (rezidentă), București, 2013.

technical skills and emphasize general-purpose life skills. [...] In order to keep up with the world of 2050, you will need not merely to invent new ideas and products; you will above all need to reinvent yourself again and again"³⁴. A future educated Romania should start first with a clearly defined vision regarding the future of the country itself.

Note:

1. Adrian Miroiu, Fuga de competiție. O perspectivă instituțională asupra societății românești, Iași, Polirom, 2016, p. 147.

2. Robert J. Barro, Jong-Wha Lee, *Education Matters. Global Schooling Gains from the 19th to the 21st Century*, Oxford, Oxford University Press, 2015, p. 2.

3. Daron Acemoglu, James A. Robinson, *De ce eșuează națiunile? Originile puterii, ale prosperității și ale sărăciei,* București, Editura Litera, 2016, p. 51.

4. Thomas Piketty, *Capitalul în secolul XXI*, București, Editura Litera, 2015, p. 105, 423.

5. Constantin Angelescu, *Evoluția învățământului primar și secundar în ultimii douăzeci de ani*, în *Revista generală a învățământului*, an XXVIII, nr. 5-6, mai-iunie 1940, p. 170.

6. Dimitrie Gusti, *Un an de activitate la Ministerul Instrucției, Cultelor și Artelor*, București, 1934, p. VIII-IX.

7. Thus, in 1931/32, in secondary theoretical education, 55,914 were pupils from urban areas, while only 22,475 were from rural areas. "Especially in high schools, the proportion of children from the contryside is very low. The 18,114 children originary from the countryside, in high schools, account for only 27.18% of their population, while the 48.533 children of urban origin represent 72.82%. In the gymnasiums, 4,361 rural students represented 37.14% of the gymnasium population, and the 7,381 urban students represented 62.86% of this population". Anton Golopenția, *Date statistice asupra situației de fapt*, in *Un an*

de activitate..., p. 238.

8. Ibidem, p. 285-287.

9. Petre Andrei, *Politica culturală a noului stat român*, in Petre Andrei, *Opere sociologice. Vol. 2: Sociologia politicii și a culturii*, edited by Mircea Mâciu, București, Editura Academiei RSR, 1975, p. 228.

10. Constantin Rădulescu-Motru, *Psihologia poporului român*, in *Enciclopedia României. Vol. 1 Statul*, București, Imprimeria Națională, 1938, p. 162.

11. Bogdan Murgescu, *România și Europa. Acumularea decalajelor economice*, Iași, Editura Polirom, 2010, p. 227. 12. *Ibidem*, p. 312-313.

13. Grigore Trancu-Iași, *Oameni și năzuințe*, Craiova, Tiparul Scrisul Românesc, [1937], p. 107.

14. Idem, Învățământul profesional. Cum era considerat. Ce trebuie să fie, in Farul, an I, nr. 1, 29 octombrie 1933, p. 2. 15. Florin Marius Pavelescu, Evoluția cadrului instituțional și dinamica sistemului educațional al României în secolul al XX-lea, București, Editura Expert, 2016, p. 110.

16. Vladimir Trebici, *Populația României și creșterea* economică. Studii de demografie economică, București, Editura Politică, 1971, p. 204-205.

17. International Labour Organization Archive, Fund ROM/67/502, Management Development Centre Bucharest. Report on Project Results.

18. Miron Constantinescu, *Laboratorul sociologic al Universității din București*, în *Forum. Revista învățământului superior*, an XII, decembrie 1970, nr. 12, p. 15-18.

19. Petre Burloiu, *Ergonomia învățământului*, în *Forum. Revista învățământului superior*, an XIII, ianuarie 1971, nr. 1, p. 19, 20.

20. Vladimir Trebici, *Populația României și creșterea economică*, p. 206.

21. Ibidem.

22. Solomon Marcus, *30 de ani cu Mihai Botez*, in *România literară*, nr. 15 din aprilie 2000, http://www.memoria. ro/marturii/domenii/diverse/30_de_ani_cu_mihai_ botez,/1195/



23. Honorina Cazacu, *Mobilitate socială*, București, Editura Academiei RSR, 1974, p. 97.

24. Mircea Malița, *Cronica anului 2000*, 2nd edition, București, Editura Politică, 1975, p. 222, 276.

25. Legea Educației și Învățământului nr. 28 din 29 august 1978, available at http://www.cdep.ro/pls/legis/legis_pck. htp_act_text?idt=10480 (accesed at 3rd of March, 2019).

26. For more details, see *România educației, România cercetării. Raportul Comisiei Prezidențiale pentru analiza și elaborarea politicilor din domeniile educației și cercetării,* București, 6 iulie 2007, available at http://old.presidency.ro/static/rapoarte/Raport_CPAEPDEC.pdf.

27. *Copiii care nu merg la școală. O analiză a participării la educație în învățământul primar și gimnazial*, UNICEF România, Buzău, Editura Alpha MDN, 2012, p. 34.

28. https://ec.europa.eu/education/sites/education/files/ monitor2017-country-reports_en.pdf .

29. http://hdr.undp.org/en/composite/HDI. , http://hdr. undp.org/en/composite/GII. .

30. Desi Report Human Capital, http:// ec.europa.eu/information_society/newsroom/ image/document/2018-20/2_desi_report_ humancapital_B5DC055D-DD1E-51CD-229138BE55F9AE8A_52247.pdf.

31. https://en.wikipedia.org/wiki/Education_Index.

32. Yuval Noah Harari, *Sapiens. A brief history of humankind*, London, Vintage Publishing House, 2014, p. 417.

33. Mihai Nadin, *Civilizația analfabetismului*, București, Editura Spandugino, 2016, p. 322, 331

34. Yuval Noah Harari, 21 Lessons for the 21st Century, London, Penguin Books, 2018, p. 262.

Bibliography:

Archives

International Labour Organization Archive, Fund ROM/67/502

Periodicals

- Anuarul statistic al României / Romania Yearbook 1996, 2002, 2012, 2016, 2017
- Forum. Revista învățământului superior, Bucharest, year XII-XIV, 1970-1972

Revista generală a învățământului, year XXVIII, 1940

Books

- *** Copiii care nu merg la școală. O analiză a participării la educație în învățământul primar și gimnazial / Children who do not go to school. An analysis of participation in primary and secondary education, UNICEF România, Buzău, Alpha MDN, 2012
- *** Enciclopedia României. Vol. 1 Statul / Romanian Encyclopedia. Vol. 1: The State, Bucureşti, Imprimeria Națională, 1938

Acemoglu, Daron, Robinson, James A. De ce eșuează

națiunile? Originile puterii, ale prosperității și ale sărăciei | Why nations fail? The origins of power, prosperity, and poverty, București, Litera, 2016

- Andrei, Petre, Opere sociologice. Vol. 2: Sociologia politicii și a culturii / Sociological works. Vol. 2: Sociology of politics and culture, edited by Mircea Mâciu, București, Editura Academiei RSR, 1975
- Andrei, Tudorel, Iagăr, Elena Mihaela (coord.), Recensământul populației și al locuințelor 20 octombrie 2011, vol. 1: Populație stabilă (rezidentă) / Population and Housing Census from 20th of October 2011, vol.1: Rezident Population, București, 2013.
- Barro, Robert J., Lee, Jong-Wha, *Education Matters. Global Schooling Gains from the 19th to the 21st Century*, Oxford, Oxford University Press, 2015
- Cazacu, Honorina, *Mobilitate socială / Social Mobility*, București, Academia RSR Publishing House, 1974
- Gusti, Dimitrie, Un an de activitate la Ministerul Instrucției, Cultelor și Artelor / A year of activity at the Minister of Public Instruction, Cults and Arts, București, 1934
- Harari, Yuval Noah, 21 Lessons for the 21st Century, London, Penguin Books, 2018
- Harari, Yuval Noah, *Sapiens. A brief history of humankind*, London, Vintage Publishing House, 2014
- Malița, Mircea, *Cronica anului 2000 / Chronicle of 2000*, 2nd edition, București, Editura Politică, 1975
- Miroiu, Adrian, Fuga de competiție. O perspectivă instituțională asupra societății românești / Running away from competition. An institutional perspective on Romanian society, Iași, Polirom, 2016
- Murgescu, Bogdan, *România și Europa. Acumularea decalajelor economice / Romania and Europe. The Accumulation of Economic Gaps*, Iași, Polirom, 2010
- Nadin, Mihai, *Civilizația analfabetismului / The Civilization of Illiteracy*, București, Spandugino, 2016
- Pavelescu, Florin Marius, Evoluția cadrului instituțional și dinamica sistemului educațional al României în secolul al XX-lea / Evolution of the Institutional Framework and Dynamics of Romania's Educational System in the 20th Century, București, Expert, 2016
- Piketty, Thomas, *Capitalul în secolul XXI | The Capital in the 21st Century*, București, Litera, 2015
- Trancu-Iași, Grigore, *Oameni și năzuințe / People and Hopes*, Craiova, Tiparul Scrisul Românesc, [1937]
- Trebici, Vladimir, Populația României şi creșterea economică. Studii de demografie economică / Romania Population and Economic Growth. Studies on Economic Demography, București, Politica Publishing House, 1971