



THE FUTURE OF HIGHER EDUCATION IN MOLDOVA

a look into students' perceptions

2019...



THE FUTURE OF HIGHER EDUCATION IN MOLDOVA

a look into students' perceptions

Methodology: Cognitive Edge's SenseMaker® Narrative Enquiry tool

Authors:

Dumitru Vasilescu, Policy Specialist at UNDP Moldova

Jana Midoni, Project Officer at Moldova Innovation Lab, UNDP Moldova

Peer Reviewer:

Anatol Gremalschi, Education Expert, Institute for Public Policy, Republic of Moldova

Zhen Goh, Innovation Specialist, Cognitive Edge, Singapore

Design/Layout: Ion Axenti

This paper is a think piece, supported and developed by UNDP Moldova, in partnership with Cognitive Edge -an organisation that specialises in applying a complexity-lens on human systems and decision-making. SenseMaker®, the tool utilised in the study, is developed by Cognitive Edge to conduct narrative-based research. This study's intention is to inform long-term policy development in the education sector, and also inspire local initiatives, either individual or group initiatives, long-term or short-term, initiated by the Ministries, Universities, teachers or even students to support the alignment of higher education to the road ahead.

We would like to thank Rectors and staff of several local universities, to include Moldova State University, Academy of Economic Studies, Technical University, as well as a large team of volunteers and interns who collaborated with UNDP for the collection and sense-making of the collected stories.

All comments, questions and suggestions linked to the paper should be addressed to the authors at dumitru.vasilescu@undp.org and/or jana.midoni@undp.org.

CONTENT

Introduction	4
Context.....	4
How Data was Collected and Analyzed.....	5
Survey Results. Youth Perceptions	7
Correlations and Interpretations.....	10
What do the Stories Tell Us? A Look into the Narratives	12
Summary of the Sense-making Sessions with Students, Faculty and University Management.....	15
Our Experience with Using Micro-Narratives.....	17
Conclusions and Way Forward	17
ANNEX: Infographic about the Future of Education.....	20

INTRODUCTION

The education sector around the globe is undergoing significant transformations. The education system in five years from now will not be the same as today. There is a need to rethink the existing model of education to meet the demands of a changing world. Massive Open Online Courses, the implementation of augmented reality in learning and training, customised education programmes established within corporate organizations, economic disruptions, critical instructor/faculty shortages and countless other changes are all ingredients shaping the future of education. In this paper, we are painting the future of education in Moldova from the perceptions of students, teachers and other relevant sources.

CONTEXT

In Moldova, the trust in the educational system has been continuously decreasing during the past years. In 2013, only one-third¹ of the Moldovan population believed that the education reforms are heading in the right direction. Since then, the number of those who are optimistic has decreased even further. Webometrics, a ranking tool measuring the global performance of universities around the world, ranked the average Moldovan University on 11,857th place out of approximately 28,000 universities in the world² in 2012. In 2019, the same indicator ranked the average Moldovan University on 14,794th place, which represents a 25% drop in 7 years. Such unsatisfactory ranking should not be surprising.

Official statistics³ shows that Moldova is experiencing a significant decrease in the number of educational institutions, teachers and students. Compared to the academic year 2010-2011, by 2017/2018, the total number of educational institutions decreased by 17.4%, with no changes in the number of State Universities (19 Universities in total). In the same period, the number of teachers in the education system decreased by 22.8%, and by 25.5% in higher education institutions.

In the academic year 2017/2018, the number of students enrolled in higher education decreased by 9.2 thousand (12.3%) compared to the previous year, and 39.2% compared to the year 2010/2011. The student to teacher ratio at the university level has changed from 17 students/teacher in the academic year 2012/2013 to 13.5 students/teacher in the academic year 2017/2018, this evolution putting a higher burden on the Universities' administrations. Also, considering that the lowest rate of enrollment in education is among the age group 19-23 yrs (24.7% enrollment), this being the university-level age, there is much to be done to improve enrolment in the Universities if not to start shrinking or closing them down.

1. "Institute for Public Policy: Republic of Moldova Public Opinion Barometer." Institute for Public Policy, <http://www.bop.ipp.md/ro/result/bar>

2. Webometrics ranking takes into account the teaching commitment, the research results, the perceived international prestige, the links with the community, including industrial and economic sectors, of the universities in order to perform the ranking.

3. "Education in the Republic of Moldova, Statistical Publication." National Bureau of Statistics of the Republic of Moldova, http://statistica.gov.md/public/files/publicatii_electronice/Educatia/Educatie_RM_2018.pdf

The decreasing number of students largely impacts the financial situation of the universities, and ultimately – the number and quality of the teaching staff, but also universities' capacity to innovate and adapt to the global trends.

Another education-related challenge is that the students who graduate rarely find work in their field of choice, as their capabilities and profiles do not match the employers' requirements. There are many questions floating in the air, out of which the most evident one is "What is the future of higher education in Moldova?".

The education-related challenges are tackled in the national level strategic documents, including the Education development strategy 2014-2020 "Education - 2020", where the reality of the education system is recognised, including higher education, the future vision and identified measures. In addition to this, we were curious to know how the users of higher education perceive it today (what is their perception about the quality of higher education they are pursuing) , how they see the future of higher education and which solutions they envision as responses to the most urgent challenges faced by their universities. To answer this, we applied the micro-narratives to collect alternative small data from students and teachers, and below we provide an analysis of what we have gathered.

HOW DATA WAS COLLECTED AND ANALYZED

Back in 2017, UNDP Moldova partnered with UNDP Istanbul Regional Hub and Cognitive Edge in a joint effort to reply to the question "What is the future of higher education in Moldova?" using small data, now referred to as micro-narratives and their indexing through SenseMaker. The SenseMaker is a convenient tool that combines the advantages of both qualitative and quantitative research methods. The qualitative part collects people's stories relating to the research question (which are not long and relate directly to the problem addressed), while the quantitative part, such as multiple choice questions or choosing a singular position on a triad or duad, allows the narrator to answer a few questions about his or her story. The combination of quantitative and qualitative data collection allows for both individual in-depth analyses and representativeness (or at least a reliable estimate) of the frequency and commonality of certain stories. The methodology of the micro-narratives is described in the earlier paper "Listening to local needs for development: Micro Narratives as a tool for the localization of SDGs"⁴.

The micro-narratives were collected during the 2nd semester of 2017/2018 academic year at the level of State University of Moldova (32% of responses), Technical University of Moldova (38% of responses), and the Academy of Economic Studies of Moldova (30% of responses). Students made up 97% of the respondents. The questionnaires were collected mostly offline, in classes of students from diverse faculties in all 3 universities. More than 1,000 narratives were received and analyzed.

4. https://www.md.undp.org/content/moldova/en/home/library/inclusive_growth/listening-to-local-needs-for-development--micronarratives-as-a-t.html

In the questionnaire⁵ we provided respondents with a brief overview of the general trends that are influencing the future of education, then asked them to index their perspectives on the triads and share micro-narratives on how they believe their educational institutions are preparing to meet those trends. We also asked respondents to provide a utopian as well as a dystopian perspective of the main changes that will occur in education by 2030. This created a ground for us to understand the general patterns and perspectives of students to the future of education, as well as provided us with a pool of micro-narratives to read and interpret.

The analysis of the collected information was conducted in several stages:

- Firstly, we looked into the quantitative data and possible correlations;
- Secondly, we looked into the qualitative data – the micro-narratives;
- And finally, we organized sensemaking sessions with students, University staff and education practitioners to read through the findings, map the challenges and jointly identify possible solutions.

The analytic effort got us to three main areas of challenges related to the preparedness of the Moldovan Universities for the future, which are:

Challenge1 : A theoretical and rigid education curricula not attractive to students;

Challenge2: Low level of teachers' motivation and skills to drive change, proactivity, and students' engagement;

Challenge 3: Lack of innovation in the education system.

Below we are bringing the details of the analysis, collected and systematized insights from various actors, and recommendations and possible solutions to adapt higher education to a brighter future.

5. https://eu.sensemaker-suite.com/Collector/collector.gsp?projectID=UNDP_FutureofEdu2017&language=en#Collector

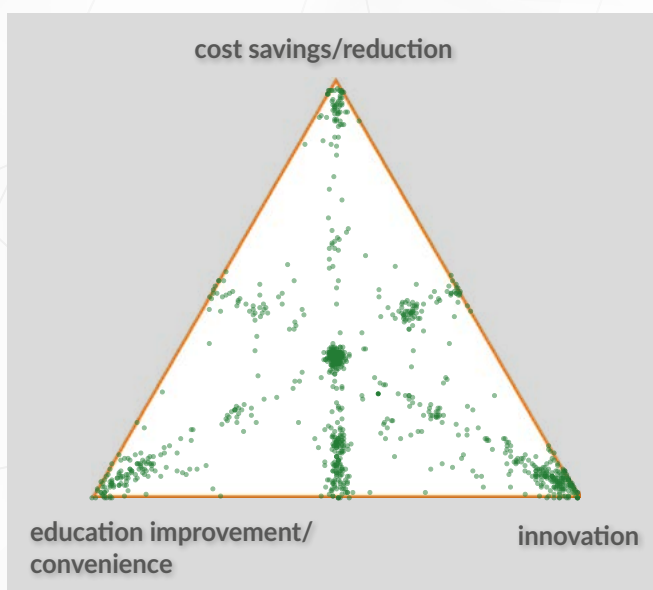
SURVEY RESULTS. YOUTH PERCEPTION

The first part of the questionnaire is based on triads, which show the thoughts of respondents on the future of education, and here below are what the respondents told us:

The way things pan out over the next decade will reflect...?

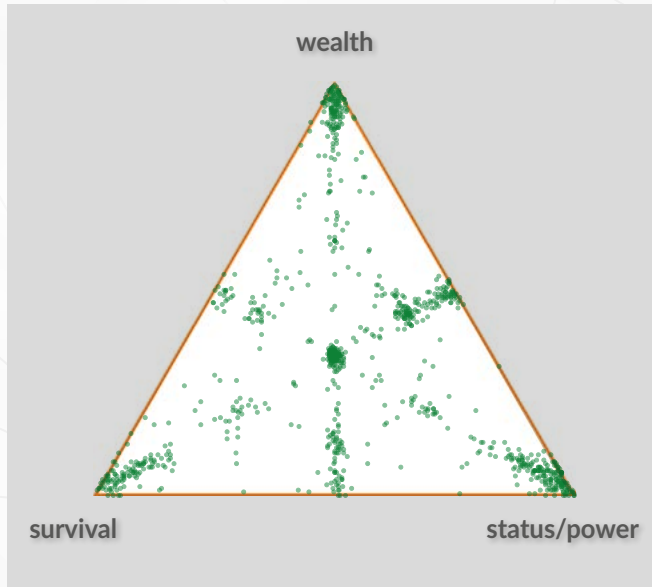
63% of the respondents are moderately to very idealistic about the future of education. This can be explained in various ways, in particular:

- Respondents are very optimistic as they have high chances and opportunities to continue studies abroad, benefiting from an overall better quality curriculum and research infrastructure
- Such perspective is given due to the fact that students are optimistic and/or naive that things would change for the better.



Motivations will likely be coming from...?

Most of the focus is placed on innovation and improvement of quality of education (with particular focus on the quality of the available curriculum, less on the infrastructure and endowments). Students might believe that cost saving and further reductions would be destructive and devastating for educational institutions as the educational situation is already poor.



Change is likely to be driven by...?

Very much mixed, but most answers relate to either wealth or status/power or a mix of the two.

This might be explained by the student's perceived societal hierarchy in Moldova, where people who possess wealth, status and power can easily override and overrule any efforts done by those who don't. This implies that the deciding factors behind any change to the educational systems in Moldova are in the hands

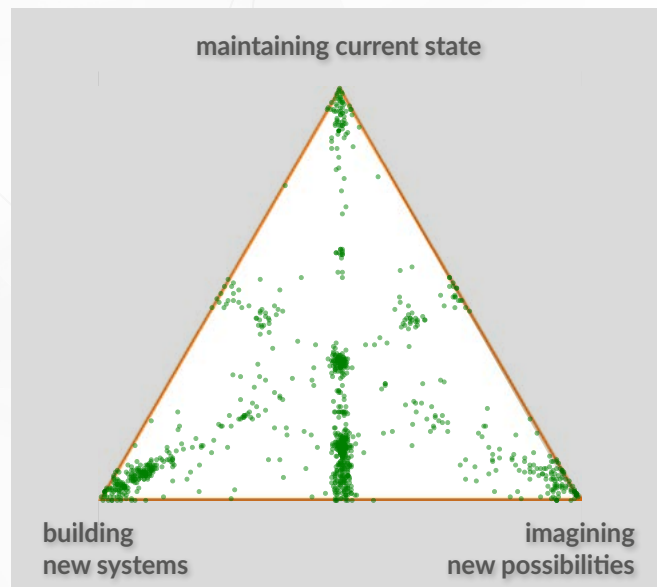
of wealthy and powerful.

Educational institutions are likely to react by...?

Most respondents think that universities would rather react by building new systems, imagining new possibilities and a mix of the two.

Students might understand that the current educational situation is poor and will only continue to worsen unless actions are undertaken. They are confident that maintaining the current state would be self-destructive and potentially even devastating

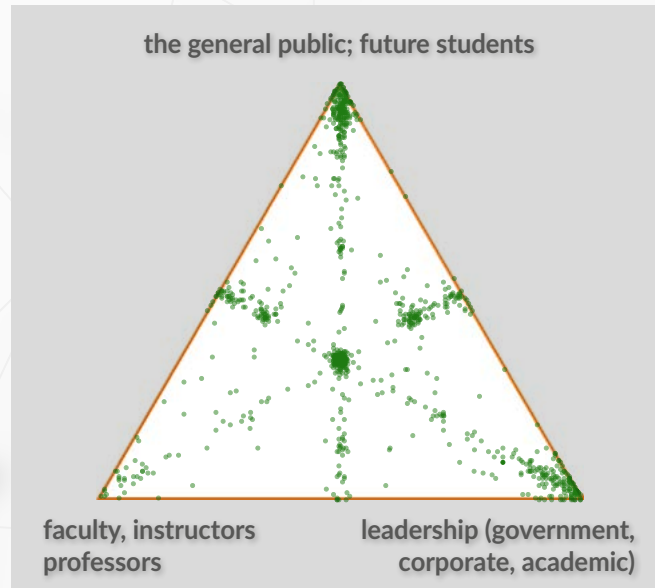
for educational institutions, and they must therefore either build new systems and/or imagine new possibilities in order to survive.



Influencing future direction will likely come from...?

Future students - actors of change. Also, students consider that the leadership of the universities and the Government should play a special role. Very curious about why so little emphasis on faculty as initiators of change? As from the weak, but still existent correlations, it is the faculties that correlate with change, improvements and new possibilities. Would that mean that the importance of faculty to drive changes is undermined?

Current students' belief that future students are to produce changes in education might be explained by the students' lack of motivation, ideas and resources to believe that they can make changes and/or that eventually, students and the general public will passively influence the future direction of education through simple market forces - for example by choosing not to enrol in universities in devastating quantities if the quality of higher education continues to plummet. Moreover, the students possibly believe that the faculties themselves do not hold enough influence over deciding factors, and are instead overruled by government and other leadership systems.



"My University needs students with initiative and will to change the education system. Also, it needs new technologies and new endowments for an easier teaching." – a student from Moldova State University

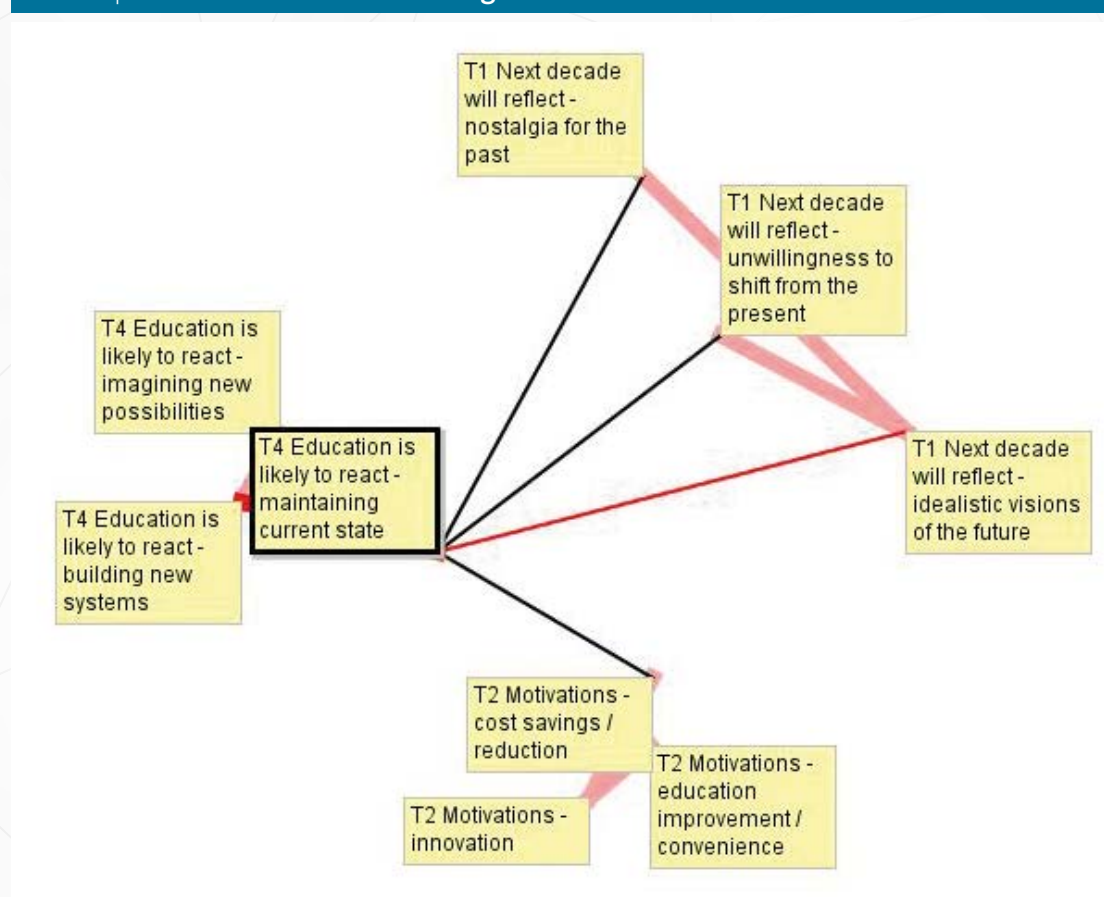
"Our education institution needs new technologies for modernization and development of a new generation of students." – a student from the Academy of Economic Studies from Moldova

CORRELATIONS AND INTERPRETATIONS

The correlations among triads are weak or even missing.

The strongest existing correlation shows that youth perceive nostalgia for the past, unwillingness to shift from the present and motivation for cost savings as influencing factors of the universities' tendency to maintain the current state (Graph 1). At the same time, they think that while maintaining the current state, universities can not generate idealistic vision of the future (the strongest negative correlation). Graph 2 also shows the positive correlation between nostalgia for the past and unwillingness to shift from the present with the motivation for cost savings. The positive correlations related to negative factors show that students have good perceptions of why the education system is not changing or preparing for the future.

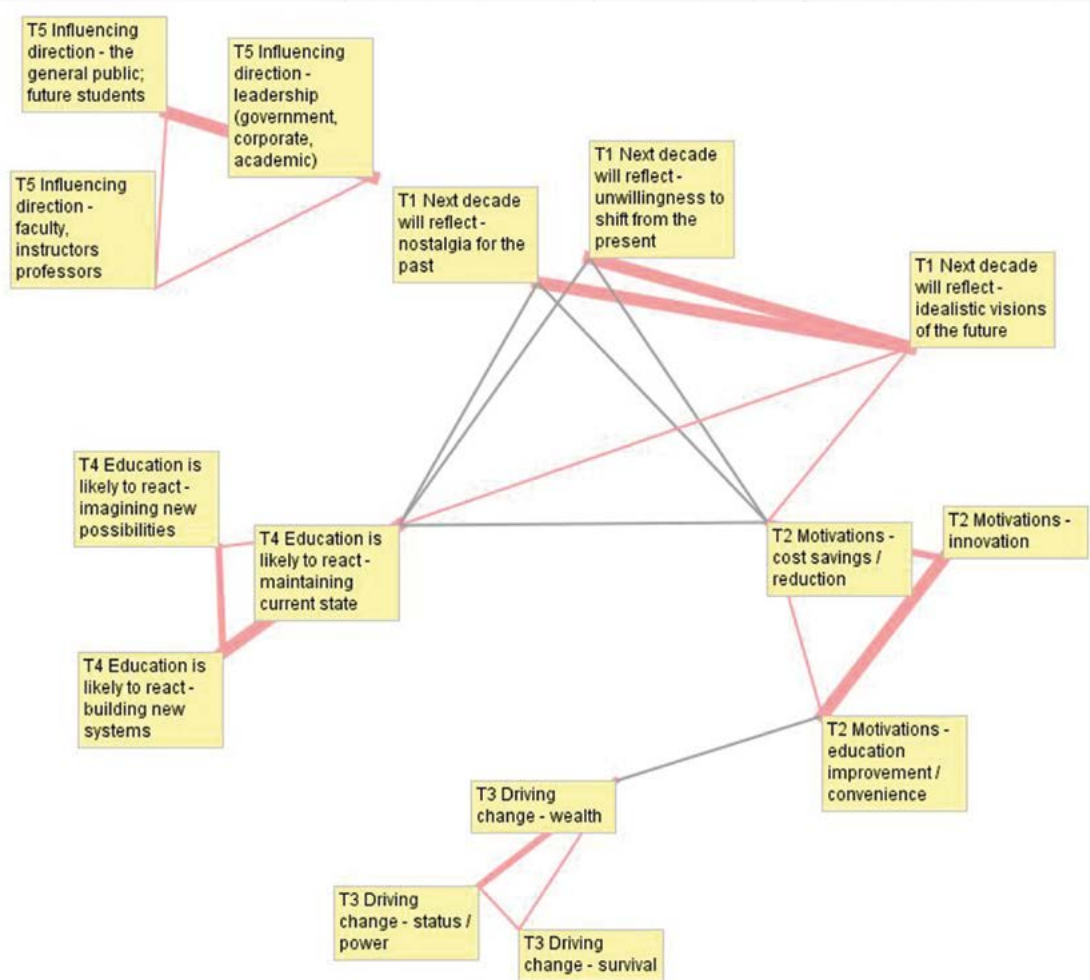
*Graph 1. Correlations 0.2 and higher. All Correlations under 0.3.



The existing positive correlation between wealth, as a driver of change, and motivation to improve the education system might be explained by students' perception that the improvements relate to equipment and facilities, which requires more investments and resources.

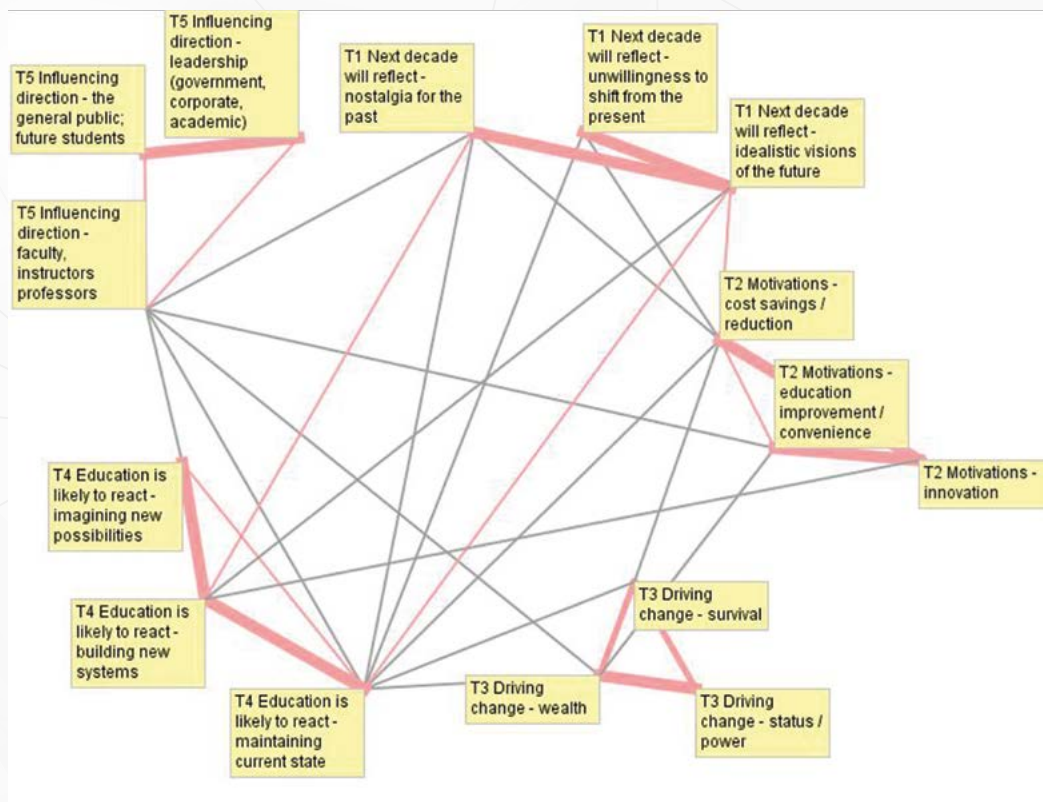
Second negative correlation is found between nostalgia for the past and building new systems as a reaction of educational institution, which shows that universities would not build new systems unless they get rid of the nostalgia of the past.

*Graph 2. Correlations of 0.15 and higher



Even though other existing correlations are even weaker, we will use them to show the perception of students of other aspects of the future of education. For instance, it is perceived that building a new education system would not be possible unless universities' motivation is driven by innovations and they have a clear vision of the future. On the influencers of future note, several positive correlations exist for faculty teachers/professors, which the students perceive as 2 main categories: those who are nostalgic and prone to maintain the current state of things, and those who are imagining the new possibilities, are motivated by education improvements and see the changes driven by wellbeing. Although only about 5% of respondents consider faculty instructors/professors as those who would influence the future direction, they consider them a good resource that can drive positive changes and thus, should be involved in generating solutions for improving the educational system.

*Graph 3. Correlations 0.1 and higher



WHAT DO THE STORIES TELL US? A LOOK INTO THE NARRATIVES

The needs of the educational institutions to prepare for the road ahead

Youth have been asked to elaborate on the needs of their educational institution to prepare for the road ahead. Analysing the content of the stories, we identified that respondents most frequently spoke about the needs, new technologies, institutions, students, teaching, methods, online, teachers, internships, youth, changes, modern, future, development, innovations - these words being among the top 30 most frequent words that had occurred in their stories.

We looked deeper into the stories to see what specifically students meant when they were referring to innovation, needs, technologies, teachers, teaching, changes, and we summarised the findings below.

Most of students talked about **NEEDS** of educational institutions to prepare for the road ahead:

1. New technologies and modern equipment, such as interactive learning boards, projectors, access to online academic programs, online libraries, online evaluation tools;
2. Revised academic programs and courses, modern curriculum and interactive teaching methods;
3. More skilled, knowledgeable, and flexible academic staff, as well as administrative staff able to promote innovations into the education system;
4. More internships and practical work;
5. Revised admission and students' evaluation process, suggesting the later shall take place in on-line format to make it more objective;
6. Financial resources;
7. New ideas and clear vision on the education process, acceleration of the reforms;
8. Less bureaucracy and exclusion of corruption.

We zoomed in the stories with frequently encountered words and found out the following:

When discussing **teaching programs and methods**, respondents referred to the institutions' need to revise the education programs, including more practical courses, up to date teaching materials, interactive teaching methodologies, more experiments, focus on quality and not quantity and on developing students' abilities. They also referred to the need of promoting teamwork among students, have more practical assignments, involve students in teaching process, improve communication between teachers and students, and provide access to international reading resources. When speaking about **innovation**, respondents referred mostly to the educational programs and academic staff, and to a lower extent to the technological improvements that would support the educational process. Youth said that the academic curriculum should be adjusted, both as content and as teaching methods. They wish the curriculum to include more interesting and interactive teaching methods and instruments, and content to be adjusted to the requirements of the labor market. They also think that the educational institutions needed teachers with a greater openness to new technologies, with dynamic, applicable and in depth knowledge. Many respondents defined the teachers they envision in the future as being young. On the technological side, students think technology is required to make the education process easier and more interactive (tablets, projectors, other smart devices). Other referred ideas included promotion of international recognition and cooperation, advancing students' mentality and teamwork, creation of research labs, and development of an advanced and clear vision for the future.

The needs mapped by the students indicate that they know how a modern education system looks like and this might be explained by the exposure of respondents to global opportunities and information, as well as experience gained in other modern education systems as part of the existent exchange programs or peers' knowledge sharing.

Though respondents talked about a large range of needs, they have not touched several elements we consider important, such as the role and contribution of actual students in the preparation of their academic institutions to the road ahead: the need for better career guidance and job orientation, academic programs focused on developing specific skills (including soft skills requested even more on the labor market), involvement of the private sector in teaching and providing internships opportunities. One of the triads shows that respondents think that the future direction of education will be mostly influenced by the general public and future students. The lack of stories about their role in changing the future direction might suggest that students need more motivation, ideas and resources to believe that they can make the desired changes.

Below we summarize the utopian and dystopian perspectives of students on the main changes that will occur in education by 2030.

DYSTOPIA

Being curious, we extracted the top 5 most apocalyptic scenarios highlighted by students in their micro-narratives, which are:

1. Everything will stay the same. Students are concerned that the education system will be stuck with the same old equipment, unqualified teachers and obsolete methodology;
2. Many existing components of the educational system will disappear. Students will disappear physically from the classes, taking online courses only. Educational institutions will disappear, as not being in demand anymore. Teachers will disappear as a consequence of that, while also the disappearance of the motivation to study is also mentioned. Investments in the traditional educational institutions are also expected to cease to exist;
3. The “robotization” of the educational system and society as a whole will happen. Many students expect to see teachers being substituted by robots, while technologies create addiction and the real life communication between people will be drastically reduced. The level of intelligence is expected to decrease, too;
4. Migration becomes pandemic. Students foresee an increasing number of youth looking for better opportunities abroad;
5. Corruption remains rooted in all aspects of life.

UTOPIA

For comparison, we also extracted the top 5 most optimistic scenarios mentioned in the micro-narratives, which are:

1. The future education will allow students to choose the subjects they want to study and which are directly connected to their professional interests and skills. No more useless subjects will be taught and practice will prevail over theory. The information taught will be actual and will have little connection to the past;
2. All the education system moves online. There will be no more physical universities or classes, all students take online courses or mentorship, are being taught either by robots or via holograms. The technology advances and allows to upload information directly to the brains of students or any other persons that want to study;

3. The teaching process will become very interactive and high tech. The teachers will be visionary and the new equipment will allow them to submerge in virtual reality and experiment. Paper based books and materials will be substituted by electronic devices and there will be no more physical exams or tests;
4. The education becomes free of charge and available to anyone interested, mainly due to the fact that it is accessible online. Corruption reduces dramatically, as result;
5. The academic curriculum is focused to a large extent on practical activities rather than theory. The students will have performant labs where they will be able to practice.

SUMMARY OF THE SENSE-MAKING SESSIONS WITH STUDENTS, FACULTY AND UNIVERSITY MANAGEMENT

Sense-making sessions are an important step of this intellectual process, where the micro-narratives are interpreted and solutions identified jointly with the respondents and other stakeholders. We organized two sessions, once with university staff and another one with students.

Sense-making with students

About 35 students from Moldovan Universities participated in the solution generation workshop, where the surprising findings from the questionnaire data were discussed and solutions to the prioritised education challenges identified in groups.

The **surprising results** for the participants were that:

- The way things will pan out over the next decade will mostly reflect idealistic vision for the future, instead of nostalgia for the past as the participants expected;
- Influencing future direction will likely come from the general public and future students, as participants were expecting that it should come from faculty, instructors and professors.

The fast idea generation session brought in three prioritised education related challenges and possible solutions as seen by participating students.

Challenge 1: A theoretical and rigid education curricula not attractive to students, but possible to be addressed through:

- More practical lessons to be enforced through cooperation between Universities and the private sector, where the private companies transfer practical content to the Universities;
- Implementation of an individualised learning path, by valuing individual capacities and possibilities. Making education programs accessible 24/24, 7/7 or provide more learning schedule options;

- Transformation of theoretical content (20-25%) into visual content, as students find video content more attractive. Value quality over quantity, judging over reporting and reproducing content;
- Organise knowledge transfer workshops (by final year students) by connecting them to newcomers.

Challenge 2: Low level of teachers' motivation and skills to drive change, proactivity, and students' engagement, possible to be addressed through:

- Promotion of teachers' international exchange programs and trainings programs in foreign Universities for learning modern teaching methodologies;
- Promotion of proactive teaching methods in classes, such as workshops, debates, role plays, and organising peer-to-peer teaching and coaching;
- Transforming teachers into students' friends.

Challenge 3: Lack of innovation in the education system, possible to be increased through:

- Partnering with private sector in applying theory into practice;
- Implication of students in the curricula development, its regular updating exercises, and in developing course evaluation tests;
- Promotion of mentoring for academic inclusion and for implementation of individualised projects;
- More interaction of students with people from the practical world.
Promotion of platforms which connect students to a large community of people interested in the same learning subject.

Sense-making with teachers

The other workshop gathered 15 teachers from the 3 Universities to discuss the micro-narratives findings, which represent students' reflections, and jointly look for potential solutions to the main challenges. Teachers recognize the existent challenges in the Moldovan higher education system, agree with students' interpretations to a high extent, but also have their own interpretations and suggestions on how to tackle specific issues. They acknowledge that the education system in Moldova is transforming too slow, not being able to catch up to the dynamics and demands from the private sector – the biggest job creators. At the same time, teachers think that not only they are responsible for the quality of education, but also the students whose quality decreased over time. Many of the students lack basic knowledge expected to be learned in schools, and a big part of them don't have a professional orientation. Thus, teachers suggest changes in the education system should start from early classes.

Overall, teachers think that the main changes in higher education should come mainly from the university faculties and the teachers, but the unanswered question is to what extent teachers have the knowledge and potential to do so. And those who have, are not sufficiently motivated. The financial arrangements in the education system are legally regulated, which does not allow the Universities to compensate teachers for

producing changes in the education system. In addition to this, teachers are attracted by the higher salary and more prestigious jobs existent on the job market. Another challenge is behavioral, as teachers lack the capacity to collaborate over specific projects.

To reply to the existent challenges, here are several ideas mapped by the teachers:

- Promote the research work among teachers, as well as students, to a higher extent. Develop and promote research or writing Centres (there is such a model in the USA). Students should be motivated to actively get involved in research work;
- Emphasize the important role of interactive teaching methods, develop and promote them as part of the syllabus. Apply gamification in teaching as well;
- Extend the applicative part of teaching by promoting learning by practices, with carrier mentorship from the companies;
- Support the collaboration among teachers by developing the “teaching café” concept to cover peer teacher-teaching (for example on how to do the readings before the class, how to build the syllabus so that students read it). Make such development activities part of the remunerated professional work to make it lucrative.

OUR EXPERIENCE WITH USING MICRO NARRATIVES

Throughout the experiment, it became clear that students have an understanding of what a good education system looks like, and demonstrated that they expect better conditions within their own country. Through the use of micro narratives, the students were able to pin-point specific problems that they experience first hand and as such - the micro narratives are a cost-effective, efficient way to collect feedback and provide us with crucial insights which are useful in designing education policies from a human centered perspective. We are motivated to use micro narratives as a means of data collection in the future.

CONCLUSIONS AND WAY FORWARD

We found the micro-narrative methodology as a relevant research tool to collect the perception of people on various aspects of their life experience, in this particular case - on the higher education they are pursuing. This offers the possibility to look not only into the perception of people on a specific question, but also into the stories that are marking people's daily life. The sense-making sessions helped us to prioritize the identified challenges and jointly identify possible solutions. We involved both respondents (users of education), as well as practitioners (suppliers of education) in the sense-making exercise, and believe that the collected insights are valuable for strategizing and planning future

actions at the level of University management, but also at the Government level. As well, we recommend that the micro-narratives methodology is regularly applied by the Universities and collected insights valued for their better alignment to the actual trends in education field and better reply to the needs of prospective students, thus keeping their relevance in the future.

The main conclusions reflecting the role and level of engagement of both students and academic staff in driving innovations at the university level are captured here below:

- students have a good understanding of the quality of (higher) education and the global trends which are driving change and innovation in the education sector;
- thus, they easily mapped out the challenges related to the higher education system that they are pursuing, and surprisingly, they are optimistic that Universities will react by imagining new possibilities and building new education systems (see T4.);
- the students have high expectations from the education program available at the university level, as well as from the academic staff;
- at the same time, current students don't see themselves as drivers of change, neither seem willing to engage in university level projects through idea generation or as project implementers;
- the academic staff understands and agrees to the perspectives brought up by students;
- though, they think that the changes shall also start from the general education level;
- there is innovation capacity and motivation among the academic staff, though seems not sufficiently valued;
- in this context, the academic staff needs recognition of their importance in preparing the universities for the road ahead and need empowerment and motivation to start acting as drivers of change.

Summarising on the three groups of challenges identified through current research (students' perceptions):

- A theoretical and rigid higher education curricula not attractive to students;
- Low level of teachers' motivation and skills to drive change;
- Lack of innovation in the education system.

We believe the below recommendations can be used to inspire both Universities' management, policy makers and development partners when generating ideas and solutions for aligning the university level education curriculum to the global trends and the new era of ICT:

- Promote a culture of innovative (out of the box) thinking and research mindset at the University management level, among academic staff and students to increase the possibility of incoming projects, funds and new talents as inputs to the transformational process at the University level;

- Diversify the education offer through targeting different groups (for ex. elderly and remote people) and offering alternative learning methods (on-line learning options, self-paced learning programs, self-designed learning agendas, micro-certifications), promoting life-long learning and on-line education options and thus, increasing the attractiveness of the education offer;
- Improve collaboration with employers, by creating a stronger bridge between the students/graduates and the job market, including through promotion of internships and apprenticeships, part-time job offers, better engagement with employers/private sector in curricula design and consultations, design and implementation of joint initiatives with the Universities, multiplication of success stories;
- Empower current students and teachers to act as drivers of change, encourage them to develop and run pilot projects and recognize their contribution to modernize and align the universities to the new trends in education and labor market;
- Use data (existent and new) to identify entry points for changes, measure the impact of the implemented projects/pilots;
- Encourage proactive teaching methods and integrate visual content into curriculum;
- Always research on the existing efforts to improve the quality of education (at the local level, but also regional and global), and build on the lessons learned and experience of those efforts. Create partnerships and enforce multiple-parties collaboration, including teachers to teachers collaboration.

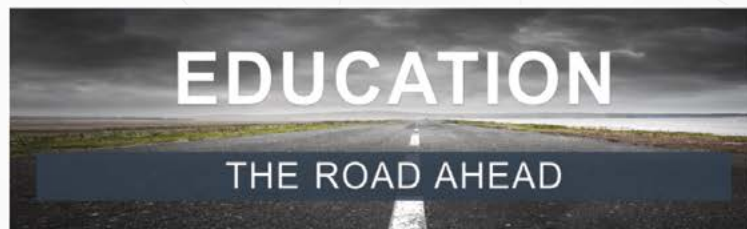
Ultimately, but also firstly, do remember that any one of us can be a driver of changes, and...

“Never doubt that a small group of thoughtful, committed, citizens can change the world. Indeed, it is the only thing that ever has.”

– Margaret Mead

ANNEX

Infographic about the Future of Education



Education as we know it will not be the same in 2025 and beyond. Transformations are well underway with greater uncertainty on what lies ahead. Explore the thoughts on future trajectories and reflect on the implications for us today!

MOOC DISRUPTION IS GOING TO BE MASSIVE!

Massive Open Online Courses are just beginning their disruption of education. Cost of delivery of institutional education forms will result in them becoming irrelevant and non-existent in the near future.



AUGMENTED REALITY (AR)

MOOC disruption will be amplified with the acceleration of augmented reality training / educational aids. Vocational training will be delivered in real settings with AR tools providing safe and highly effective content delivery.

ECONOMIC DISRUPTION

Energy and finance sectors are undergoing accelerated change and are prime for disruption. How will educational institutions maintain agility to adapt their programs to industry and market-place needs? Can they change?



STUDENT RECRUITMENT & RETENTION IS ALL VIRTUAL

Online communities, interactions, and game environments is the ONLY way to build relationships with current and prospective students. Face-to-face and in person is a supplement NOT the norm!

CORPORATE - PROFESSION PARTNERSHIPS DELIVER EDUCATION

After years of using and working with educational institutes, companies move to offer education directly in partnership with professional regulatory bodies. This move allows corporate entities to control quality of internships and apprenticeship programs directly replacing classrooms and labs with virtual environments, augmented reality, and on-the-job training. Educational institutions are desperately seeking to assert their relevance.



IMMIGRATION IMPACT ON EDUCATION UNEXPECTED

New immigrant populations, in mass numbers, seek alternative education; educational institutions with heavy residency curriculums suffer due to enrolment drops and lack of innovative, low-cost options.

INSTRUCTOR / FACULTY SHORTAGES REACH CRITICAL LEVELS

Universities, colleges, and vocational schools are all in crisis with severe faculty shortages. At a time when classroom quality is critical to ensuring a great learning experience, institutes are struggling to compete with alternative education options. Which ones, if any, will survive?



STUDENTS & ADULT LEARNERS ARE SEEKING MICRO-CREDENTIALS IN DROVES!

With corporations relying more and more on specific micro-credentials for their new hires, learners are now seeking a customized route to a job. Training firms are seizing on this opportunity as they leverage a combination of advanced technologies in MOOCs and AR to deliver Micro-Credentials to the student.

Training / education is now tailored to the learner instead of the learner adapting to the training.



Navigating an uncertain future will require agility, resilience, and disruptive awareness.

Are we ready?



*Empowered lives.
Resilient nations.*

**United Nations
Development Programme**
in Moldova

www.undp.org