

Our Digital Village

National report

after the RMA workshops - Romania

‘Digital competences in the villages Dolhasca, Șcheia, Gemenea and Suceava city (Romania): challenges and aspirations of the community’



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Introduction

Digitalization in Romania's rural areas is a transformative process aimed at bridging the digital divide between urban and rural regions of the country. It involves the integration of digital technologies and practices into various aspects of rural life, including agriculture, education, healthcare, and local governance. This process is essential for unlocking the untapped potential of rural areas and ensuring that they can keep pace with the rapidly evolving digital landscape of the modern world.

Romania is a country with a significant rural population. A substantial portion of the population resides in rural communities, and agriculture plays a crucial role in the rural economy. However, these areas have historically faced challenges in terms of infrastructure, access to services, and economic development.

Digitalization is seen as a critical strategy for addressing these challenges. The importance of digitalization lies in its potential to stimulate economic growth, improve service delivery, and promote inclusivity by connecting rural areas to the digital world.

Romania's rural areas have made progress in terms of digital adoption. However, there are disparities in internet penetration and access to digital services. While some rural areas have relatively good connectivity, others still struggle with limited access to high-speed internet.

Digitalization challenges identified especially in rural Suceava region:

- Limited Infrastructure: Insufficient broadband infrastructure in some rural areas hampers access to the internet.
- Digital Skills Gap: Many residents lack digital literacy and skills required to fully utilize digital tools and services.
- Economic Disparities: Rural-urban economic disparities persist, and digitalization is a means to address this imbalance.
- Reluctance to Change: Traditional practices and attitudes can sometimes hinder the adoption of digital technologies.

To bridge the rural-urban digital divide, various stakeholders, including the government, private sector, and NGOs, have launched initiatives and implemented solutions. These include:

- Government programs to support rural development and digital infrastructure.
- Public-private partnerships to expand broadband coverage.
- Digital training programs to enhance digital literacy.
- Infrastructure development projects to improve connectivity.

The benefits of digitalization in rural Romania are multifaceted and include:

- Improved access to education and healthcare services.



- Enhanced agricultural practices and productivity.
- Increased employment opportunities, including remote work.
- Economic growth and reduced rural-to-urban migration.

The future of digitalization in Romania's rural areas holds promise with the potential of emerging technologies such as 5G and the Internet of Things (IoT). Continued government support, innovation hubs, and startup initiatives are expected to further accelerate the process.

In conclusion, digitalization in Romania's rural areas is a vital strategy for narrowing the digital divide, promoting economic growth, and improving the quality of life for rural residents. It involves a multi-faceted approach that addresses infrastructure, skills, and economic disparities while harnessing the potential of digital technologies for rural development.

Method

ACDC Romania has organized 9 RMA workshops in 4 different communities from Suceava county: Dolhasca, Șcheia, Gemenea village and Suceava city.

Out of these, 3 were introductory meetings with information about the problems and issues present, the current state in terms of digital skills development, teaching and learning, and the level of awareness about the importance of digital skills, 3 self-analysis workshops about the level of digital skills already present, the ideas and attitudes towards digital skills, technologies and the current state of teaching and learning about and with digital technologies and 3 mixed workshops, attended by representatives from all groups involved in the project (teachers, educational experts, students, other adults from rural communities) as well as representatives of policy-makers, aimed to present the results of the introductory and needs analysis workshops from Șcheia, Dolhasca and Gemenea.

The introductory meetings were used to ask about the rural area, how it is lived by its inhabitants. These introductory meeting enabled us to get an idea of the territory with valuable information about the problems and issues present, the current state in terms of digital skills development, teaching and learning, and the level of awareness about the importance of digital skills.

The second round of RMA workshops was constructed on addressing and answering together with the participants five main questions about the level of confidence with their digital skills, what are the digital tools that they use or are aware of/familiar with, how did they acquire their digital skills, which aspects of digital skills are more important in their activities and which ones would they like to improve and if they know something about Coding, Robotics, Microcontrollers and web-development, 3D modeling and printing.

In the mixed groups, the participants identified the most important common needs and challenges, finding and discussing solutions for each of them, taking into account the digital and transversal competences in the rural areas.

Participants

Table 1. Profile of the participants in the RMA workshops

Type of participant	Gender Identity	Where they attended the RMA self-analysis workshops	Code
Educational teaching staff	Female	Școala Gimnazială "Dimitrie Păcurariu" Șcheia	P1RO
	Female	Școala Gimnazială "Dimitrie Păcurariu" Șcheia	P2RO
	Female	Școala Gimnazială "Dimitrie Păcurariu" Șcheia	P3RO
	Female	Școala Gimnazială "Dimitrie Păcurariu" Șcheia	P4RO
	Female	Școala Gimnazială "Dimitrie Păcurariu" Șcheia	P5RO
	Female	Școala Gimnazială "Dimitrie Păcurariu" Șcheia	P6RO
	Female	Școala Gimnazială "Dimitrie Păcurariu" Șcheia	P7RO
	Female	Școala Gimnazială "Dimitrie Păcurariu" Șcheia	P8RO
	Female	Școala Gimnazială "Dimitrie Păcurariu" Șcheia	P9RO
	Female	Școala Gimnazială "Dimitrie Păcurariu" Șcheia	P10RO
	Female	Școala Gimnazială "Dimitrie Păcurariu" Șcheia	P11RO
	Female	Școala Gimnazială "Dimitrie Păcurariu" Șcheia	P12RO

	Female	Școala Gimnazială "Dimitrie Păcurariu" Șcheia	P13RO
	Female	Școala Gimnazială "Dimitrie Păcurariu" Șcheia	P14RO
	Female	Suceava (just the mixed WP)	P38RO
School students	Female	Liceul „Oltea Doamna” Dolhasca	P15RO
	Female	Liceul „Oltea Doamna” Dolhasca	P16RO
	Male	Liceul „Oltea Doamna” Dolhasca	P17RO
	Male	Liceul „Oltea Doamna” Dolhasca	P18RO
	Female	Liceul „Oltea Doamna” Dolhasca	P19RO
	Male	Liceul „Oltea Doamna” Dolhasca	P20RO
	Female	Liceul „Oltea Doamna” Dolhasca	P21RO
	Female	Liceul „Oltea Doamna” Dolhasca	P22RO
	Female	Liceul „Oltea Doamna” Dolhasca	P23RO
	Male	Liceul „Oltea Doamna” Dolhasca	P24RO
	Female	Liceul „Oltea Doamna” Dolhasca	P25RO
	Female	Suceava (just the mixed WP)	P39RO
	Male	Suceava (just the mixed WP)	P40RO
Adult learners	Female	Școala Gimnazială Gemenea	P26RO

	Female	Școala Gimnazială Gemenea	P27RO
	Female	Școala Gimnazială Gemenea	P28RO
	Female	Școala Gimnazială Gemenea	P29RO
	Female	Școala Gimnazială Gemenea	P30RO
	Female	Școala Gimnazială Gemenea	P31RO
	Female	Școala Gimnazială Gemenea	P32RO
	Female	Școala Gimnazială Gemenea	P33RO
	Female	Școala Gimnazială Gemenea	P34RO
	Male	Școala Gimnazială Gemenea	P35RO
	Female	Școala Gimnazială Gemenea	P36RO
	Female	Școala Gimnazială Gemenea	P37RO
	Female	Școala Gimnazială Gemenea	P37RO
	Female	Suceava (just the mixed WP)	P41RO

Information tools

The source of information used is the RMA workshops, developed in the period May-June 2023 in Suceava county/Romania, by the Association of Community Development Consultants.



Data analysis

Tabel 2. Categories and Codes

RMA Workshop	Category	Sub-category
Workshop 1 – Introductory meeting	1. Advantages and challenges	1.1. Advantages
		1.2. Challenges
	2. Definition	2.1. Ability
		2.2. Use
		2.3. Create
		2.4. Share
	3. Caring	3.1. Great importance
		3.2. Medium importance
		3.3. Low importance
	4. Reliance	4.1. Reliance for educational purposes
		4.2. Reliance for social purposes
		4.3. Reliance for work purposes
	Workshop 2 – Self- analysis	1. Confidence
1.2. Medium confidence		
1.3. Low confidence		
2. Typology of digital tools		2.1 Social networks (Instagram, TikTok, etc.)
		2.2. Creative tools (Photoshop, Illustrator, Movie Maker, etc.)
		2.3. Gaming tools (Discord, gaming software, etc.)
		2.4. Media tools (Netflix, Disney +, etc.)
3. Acquisition		3.1. Self-taught

		3.2. School or high school
		3.3. Private academy
		3.4. Friends or relatives
	4. Importance and improvement	4.1. Social aspects
		4.2. Security aspects
		4.3. Management aspects
		4.4. Technical aspects
	5. Emergent technologies knowledge and contribution	5.1. High knowledge
		5.2. Medium knowledge
		5.3. Low knowledge
		5.4. Contribution
Workshop 3 – mixed groups	1. Needs	1.1 Most important community needs

Results

Workshops 1 – Introductory

The participants defined digital skills as the capacity to use different gadgets, to understand and use digital platforms, to solve different problems online (for example: looking for jobs, paying bills), the capacity to use a computer and search information on the internet. The school uses technology to communicate with the student’s parents, but also with the teachers. In general, the community views technology as a means of communication (for example: there is a community Facebook group). Although the local authorities are trying to implement different online services, online payments (for example: local taxes) are not available. The main provider of training for ICT skills is the local school.

The students mentioned that they feel the adults in the community adapt slower to the use of the new technologies. Also, the local services and authorities don’t use very much digital platforms for their work and communication with the people from the community. They identified digital skills as being qualities, abilities connected to the right use of technology, the ability to use digital resources.

The adult learners mentioned that digital skills and technology help solving problems much faster and gaining time for other activities. They mostly use the internet for communicating with friends and family, to shop online for food and other items. All the participants mentioned the need for better infrastructure in order to connect easier with the urban areas.

QUESTION 1: In your opinion, what are the advantages and challenges of your (rural) community? GENERAL CODE: 1. Advantages and challenges

One of the advantages identified by the educational staff mentions that there is a high number of children and youth in the community, *many families are settling back, the children/youngsters are very open to digitalization and learning new digital skills* (according to P2RO). The local school has an important role in the ICT education, it has access to European projects, partnerships with NGOs. Also, the community from Șcheia is close to Suceava city which brings an advantage in terms of higher education and access to services, trainings, extra-curricular activities (*Suceava city is close to us and the students can go to continue their studies there*, says P5RO). The students mentioned as an advantage the closeness of the community: *Our community is a small one so people are close to each other and help each other when is necessary* (P18RO).

Concerning the challenges, *many parents don't have the possibility to buy good digital equipment for all the children they have, which was a very important issue during the pandemic when the school classes moved online* (P1RO). It was also mentioned that digital technology is not enough used by the local authorities (*The local services and authorities don't use very much digital platforms for their work and communication with the people from the community*, according to P15RO). A challenge identified by the adult learners was the very slow access to internet: *The village is in a mountain area, so the infrastructure, internet access and the connection with the city are not the best* (P26RO).

QUESTION 2: How do you define DIGITAL SKILLS?

GENERAL CODE: 2. Definition

P27RO mentioned that *digital skills and technology help solving problems much faster and gaining time for other activities*. Also, P29RO said: *I use different digital platforms to solve problems and look for jobs*.

According to the students/youngsters, they can create their own future with the help of digital skills: *The children/youngsters are very open to digitalization and learning new digital skills*. (P20RO)

The digital skills are essential for sharing ideas and communication: *The children/youngsters, but also the adults, use the technology mostly for communication and accessing social media* (P13RO).

QUESTION 3: How much do you care about digital skills in your community?

GENERAL CODE: 3. Caring

The educational staff discussed about the need for training on digital skills, especially for adults: *There is a great need for training programmes in digital skills for the adults especially the ones with a lower level of school education (P7RO)*. The students mentioned a medium importance for digital skills in school: *Young people participate in trainings through the school and use technology for their school work and for communication, socializing (P19RO)*.

The adult learners mentioned the low importance of digital services in the community (*The community as a whole doesn't pay a lot of attention on the development of digital skills and digital services, according to P30RO*) and the students raised the problem of the digital skills of adults from the community (*Adults pay less attention to the development of their digital skills, according to P23RO*).

QUESTION 4: How do you and your community rely on the use of digital services? If so, for what purposes? GENERAL CODE: Reliance

Concerning the reliance for educational purposes, the educational staff mentioned the communication with the parents of students: *The school uses technology to communicate with the student's parents, but also with the teachers (P8RO)*, the adult learners talked about the importance of school provided trainings: *The main provider of training for ICT skills is the local school (P29RO)* and the students mentioned the opportunities provided by schools: *The technological high school has an important role in the ICT education, it has access to European projects, partnerships with NGOs (P19RO)*.

Other aspects mentioned were the communication between the members of the community (*The community views technology as a means of communication (for example: there is a community Facebook group, according to P2RO)*) and the reliance on digital skills and platforms for work (*It is easier to do part of the work for my small business, with the help of digital tools and platforms, according to P28RO*).

Workshops 2 – Self-analysis

QUESTION 1: Are you confident with your level of digital skills? GENERAL CODE: 1. Confidence

A high level of confidence was mentioned by some of the educational staff, based on their participation in trainings provided by different stakeholders (*I participated in trainings developed in European projects where my school and teachers were involved, but also through Google trainings, according to P17RO*). A very high level of confidence in digital skills was mentioned just by one participant: *My university degree is in ICT studies and I am employed by the school as an ICT expert (P3RO)*. In the adult learners' group, a very high level of confidence in digital skills was mentioned by none of the participants.

A medium level of confidence was identified among the majority of the participants: we use digital

platforms in our work and in the day-to-day life, so we had to learn (P2RO). A medium level of confidence was mentioned concerning the use of educational apps and platforms (*I use some educational apps and platforms, like Word wall, Kahoot, Moodle, Zoom, Meet, Teams, Classroom*, according to P20RO). Also, P28RO said: *I had to learn how to use a computer and tablet in order to keep up in my professional life.*

Some of the students and adult learners expressed a low confidence in their level of digital skills, having just a basic level of knowledge: *My level of skills is not so advanced, more on the basic level* (P24RO). P25RO raised the need for improvement of digital skills (*I feel I can do better.*) None of the educational staff participants mentioned a low confidence level.

QUESTION 2: What are the digital tools that you use or are aware of/familiar with?

GENERAL CODE: 2. Typology of digital tools

Concerning the typology of digital tools, the participants mentioned the use of different apps and platforms for communication (*The majority of the young people from my generation uses Instagram, TikTok, Snapchat, BeReal*, according to P21RO). Also, P27RO expressed that *I mostly use WhatsApp, Facebook and sometimes Instagram for photos*. The use of different platforms for developing promotional materials was found to be useful (*I would be very interested in learning more about Canva for developing promotional materials for my business and also a website*, according to P29RO), the use of Canva for developing different materials (*I think Canva is a very interesting creative tool, but I mostly use it at home for my personal projects*, according to P23RO). P7RO mentioned that: *We mostly use WhatsApp, Zoom, Meet for professional communication and Facebook for keeping in touch with friends.*

The educational staff discussed about the use of different platforms for teaching (*I included Wordwall and Kahoot in my work with the students*, according to P5RO).

None of the participants mention any gaming or media tools used.

QUESTION 3: How did you acquire your digital skills? GENERAL CODE: 3. Acquisition

The digital skills were mostly developed at home among the student group (*Most of my digital skills I learned at home*, according to P18RO). Also, the need to learn digital skills was driven by necessity, in the adult learners group: *Everything I know I learned by myself because I had too* (P26RO).

The high school/school is an important provider of digital training, but the classes need some updates (*At school we have IT classes, but the Manuals and the information we learn should be updated*, according to P20RO).

There were mentioned digital skills acquired during high school and university (*My university degree is in ICT studies and I am employed by the school as an ICT expert*, according to P3RO).

Some participants mentioned trainings developed through European projects where the school was involved (P18RO: *I participated in a training organized by an NGO, inside a European project*; P31RO: *participated in a basic skills ICT training some years ago.*)

Others discussed about the participation in trainings organized by private providers (*I participated in different private trainings for digital skills, according to P8RO*).

The teachers managed to improve their digital skills by learning from their colleagues: *A lot of my digital skills were gained with the help of my colleges* (P5RO).

QUESTION 4: Which aspects of digital skills are more important at school/in teaching/in your work and which ones would you like to improve? GENERAL CODE:

4. Importance and improvement

The students mentioned developing the school social media presence: *It would be useful to develop a better digital presence for the school (website, social media), which could be done also with the help of the students* (P16RO). The educational staff and the adult learners raised the issue of the social and communication aspects of digital technology and skills: *We use our digital skills for communicating with the parents of our students and keeping connected with them* (P3RO); *We mostly use digital skills to communicate with our family and friends, especially the ones leaving abroad* (P29RO).

Concerning the management aspects, the students discussed about their involvement in managing and using the digital tools available in school (*The students should be more involved in helping the teachers with different digital tools and instruments, according to P17RO*).

The educational staff talked about the management of the school activities (*We use a special platform for cooperating and working with the school inspectorate, according to P2RO*) and the adult learners on the management of a business through digital tools (*I am a young entrepreneur has developed a local business. I am very eager to improve my digital skills for my professional development, according to P27RO*). The students have the technical skills to use digital platforms, but are not always encouraged by the teachers: *The school has good ICT equipment and we want the teachers to use more digital platforms in the classes* (P24RO). Another aspect brought into attention was about learning how to better use the instruments offered by Google (*I know that Google platform has a lot of useful instruments, but I don't know yet how to use all of them in my work, according to P4RO*).

The need to improve the technical aspects was discussed a lot: *We need in the community a better internet connection and better school ICT equipment* (P29RO). There was no mention of security aspects in any of the three groups.

QUESTION 5: Do you know something about Coding, Robotics, Microcontrollers and web-development, 3D modeling and printing? How do you think they could contribute to your personal and professional life? GENERAL CODE: 5. Emergent technologies knowledge and contribution

There was no high knowledge about coding, robotics, microcontrollers and web-development, 3D modeling and printing identified from the discussions with the three groups: *I have heard about coding, robotics and 3D printing, but I have no experience with them* (P22RO). There was just one person with high knowledge about these aspects: *I have learned about all these emergent technologies, but I don't use them in my daily work* (P5RO).

There was some knowledge about 3D modelling and printing (*We heard about 3D printers because some schools we cooperate with have this technology*, according to P1RO). In general, the knowledge about emergent technologies was very low, for the majority of participants (*These topics are not covered in school, so far*, according to P24RO; *There are no trainings about these technologies in our community or local school*, according to P26RO).

Concerning the contributions, the participants could identify a few important aspects for their professional life, mostly: the use of 3D printing in school (*As we are in a technical high school, 3D printing could be used and would be interesting for the students*, according to P15RO; *I could see further use of this knowledge and technology for the school programmes/classes, like developing different graphics, teaching materials*, according to P4RO) and the use of web development for the local entrepreneurs (*I would really like to learn more about web development for my business*, according to P27RO).

Workshops 3 – Mixed groups

Each person introduced themselves and shared their needs and desires. The moderator presented a summary of the conclusions of the other sessions about the needs of each group, following these aspects:

- What are digital skills?
 - ✓ qualities, skills related to the correct use of technology
 - ✓ ability to use digital resources
 - ✓ ability to use devices, gadgets, internet, apps with ease
 - ✓ digital competences help professionally and are an ability to use certain applications, programs and devices
 - ✓ technical operating skills for survival in the online environment and the digital age
- Confidence in digital skills?
 - ✓ lack of confidence
 - ✓ basic skills
 - ✓ high confidence level
 - ✓ desire to know more and improve them
- How were digital skills acquired?
 - ✓ ICT classes at school

- ✓ individual study
- ✓ camps
- ✓ vocational, non-formal, higher education courses
- ✓ from other colleagues

- Digital skills in the community?
 - ✓ young people have more developed skills acquired in school
 - ✓ in general, adults are less adaptable, have less time and are less open to learning
 - ✓ not enough importance given at community level
 - ✓ use of internet and various platforms (WhatsApp) to communicate, socialize
 - ✓ parents do not have the means to provide all children with tablets, e.g. for online school. Because of religion, parents' rules, they restrict access to technology.
 - ✓ online school-parent communication groups / digital catalogue
 - ✓ community Facebook groups

Concerning the question *Among the needs that were presented, which do you think are the most important for the community?* the participants identified the following ones: the infrastructure, low access to technology, low access to other cultural activities and personal development, insufficient digitization, poorly equipped computer labs, insufficient knowledge of 3D modelling and printing, web development, coding, robotics, school online platforms, not updated ICT textbooks, insufficient knowledge of how to produce promotional materials and promote online for rural entrepreneurs.

When asked to share some ideas and initiatives, based on the needs identified, the proposals of the participants were the following: more European funds accessed, volunteering activities in the community, developing a stronger partnership between the students and teachers, more communication with the local authorities which could have easier access to structural funds, identifying and working with specialized companies and experts in the ICT field, more trainings developed for teachers, students and other adults from the community, working together with NGOs and developing common programs and trainings, more financed projects for schools, a better cooperation at local level between the authorities and the schools, developing partnerships with the University from Suceava for providing high quality trainings and developing common projects/activities.

Discussion and conclusions

The nine meetings organized as RMA workshops with 41 participants from different rural communities of Suceava county made us understand that digital tools and digital skills are used by everybody in their day-to-day life, by some of them in their professional life, but very few understand the complexity of this technology. The participants defined digital skills as the capacity to use different gadgets, to understand and use digital platforms, to solve different problems online (for example: looking for jobs, paying bills), the capacity to use a computer and search information on the internet. But, as we have seen in the self-analysis workshops, the majority of the participants had a low level of knowledge concerning emerging technologies because of lack of training in their local community and schools.

However, we have to mention that all the groups of participants expressed their interest in learning more about digital skills, about these new digital technologies and managed to find contexts and examples where these new technologies could be used in their professional life.

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