

Our Digital Village

National report after the RMA Workshops – Austria

'Digital competences in Burgenland (Austria): challenges and aspirations of the community'



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Introduction

The rural context of Austria is significant, since 2/3 of the inhabitants of Austria live in rural areas. Furthermore, agriculture and forestry predominate with approx. 90 % land use. However, there are sector-specific challenges in connection with digitalisation. The service sector, in which 71% of Austrian work force is employed, banks and insurance companies, but also the pharmaceutical, automotive and chemical industries, as well as increasingly the retail sector, make great use of ICT. The spatial distribution of highly digitalised, i.e. ICTproducing and ICT-using sectors, however, shows considerable differences. In urban regions, significantly more people (25%) work in highly digitalised sectors than in non-urban and rural regions, where 15% of employees work in highly digitalised sectors (source: Räumliche Dimension der Digitalisierung).

Concerning the rural development in the different regions of Austria, the state of Burgenland is of particular interest. It is the only state in Austria that is classified by the EU Cohesion Policy as a transition region, i.e. has a GDP per inhabitant between 75% and 100% of the EU average (source:

https://www.eib.org/en/projects/sectors/regional-development/index.htm 26.09.2023). Additionally, our organisation (die Berater) has a well-developed network of partners and establishments in Burgenland. Our network of partners in the educational sector consists of: Landesjugenreferat Burgenland, Berufsförderungsinstitut Burgenland, Ländliches Fortbildungsinstitut Österreich / LFI Burgenland, Burgenländisches Volksbildungswerk, Landjugend, bOJA – bundesweites Netzwerk Offene Jugendarbeit, Plattform für berufsbezogene Erwachsenenbildung, and Wirtschaftskammer Burgenland, Regionalstelle Oberwart as a local authority. Consequently, for the conduction of the RMA workshops the towns of Oberwart and Güssing in Burgenland were chosen, in which die Berater has establishments as an educational institution.



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Method

The method consists of self-analysis workshops based on the Manual and methodological framework on "Reciprocal Maieutic Approach" for context analysis towards the digital transformation. The self-analysis workshops were conducted with 3 target groups: 1) educational teaching staff, 2) school students, youth 3) adult learners. The process of self-analysis consisted of 3 steps: 1) introductory meetings per target group (1/target group), 2) self-analysis workshops on needs and desires with each target group separately (1/target group), 3) self-analysis workshops of mixed groups with representatives of the above-mentioned target groups.

1. Introductory meetings:

In the introductory meetings the participants could introduce themselves through the sharing of their dreams. This is the classic start for a self-analysis workshop process as it sets the scene to open up to each other and share personal experiences. Additionally, the participants were asked questions about the rural area, how it is lived by its inhabitants. These introductory meetings allowed 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 their level of awareness about the importance of digital skills.

2. Self-analysis workshops on needs and desires with each target group individually

In the self-analysis workshops the specific needs and desires of each individual target group were identified. The focus was on digital skills and education, but also on needs and desires in general. These sessions allowed to get a more inthe depth idea of

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level of digital skills already present, their ideas and attitudes towards digital skills, technologies and the current state of teaching and learning about and with digital technologies.

3. Mixed-group self-analysis workshops

After the individual workshops, representatives for each target were involved in 3 mixed self-analysis workshops in order to understand better each other's needs, desires and where they match. This was an important step in the process to identify common needs that can be shared by the community in the sense that they all agree and are aware about their own and others' needs, interests and desires. The first two workshops were mainly dedicated to the sharing and identification of those 'shared needs' whereas during the last workshop, the outcomes were shared with the group, and ideas for solutions could be pitched to reach better digital education, teaching and content – especially in relation to activities, interesting and relevant themes, attractive technologies and topics to be explored. By the end of the workshops, local needs of each target group were identified individually as well as elaborated and shared amongst members of the different target groups during the mixed groups. Furthermore, the workshops offered opportunities for dialogue between groups that otherwise would not take the time to listen or know about each other's needs, thus increasing awareness, understanding and feeling of community.

All final mixed workshops started with a summary of all results and findings from the previous group sessions. Interestingly, the outcomes within the four groups of the mixed workshops were similar and complementary. This interconnected synergy made it clear that the identified needs and issues are reliable and actual. The provision of the summary supported to build a common ground to have the final conversation in a cohesive aligned manner.



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The question which are the most important presented needs and offered digital skill areas in the project for them and their community was approached in two steps: first, a list of digital skill areas that participants mentioned was made, then the participants were asked to rate those areas: three points for the most important, two for the skill prioritized as second important and one point for the skill prioritized as third important.

Participants

A total number of 48 participants took part in the workshops, including school students (youth), adult learners, and educational staff (trainers). Two workshops with educational staff with 4 and 9 participants were conducted, two workshops with adult learners with 8 and 10 participants, and three workshops with school students with 4, 7 and 6 participants. There were four mixed workshops with a total number of 36 participants (see table 1 below).

	Trainers	Adults	Youth	Mixed
G1	4	8	4	7
G2	9	10	7	8
G3	-	-	6	8
G4	-	-	-	13
Total	13	18	17	36

Table 1. Number of participants

The following table shows the list of participants with codes used for the participants' narratives:

Table 2. Participants and coo	des for narratives
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Group	Participant	Code
adult G1	participant 1	AP1AU
adult G1	participant 2	AP2AU
adult G1	participant 3	AP3AU
adult G1	participant 4	AP4AU



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adult G1	participant 5	
adult G1	participant 6	
adult G1	participant 7	
adult G1	participant 8	
adult G2	participant 1	AP9AU
adult G2	participant 2	AP10AU
adult G2	participant 3	AP11AU
adult G2	participant 4	AP12AU
adult G2	participant 5	
adult G2	participant 6	
adult G2	participant 7	
adult G2	participant 8	
adult G2	participant 9	
adult G2	participant 10	
trainer G1	participant 1	TP1AU
trainer G1	participant 2	TP2AU
trainer G1	participant 3	
trainer G1	participant 4	
trainer G2	participant 1	TP5AU
trainer G2	participant 2	TP6AU
trainer G2	participant 3	TP7AU
trainer G2	participant 4	TP8AU
trainer G2	participant 5	TP9AU
trainer G2	participant 6	
trainer G2	participant 7	
trainer G2	participant 8	
trainer G2	participant 9	
youth G1	participant 1	YP1AU
youth G1	participant 2	
youth G1	participant 3	
youth G1	participant 4	
youth G2	participant 1	YP5AU
youth G2	participant 2	YP6AU
youth G2	participant 3	YP7AU
youth G2	participant 4	
youth G2	participant 5	
youth G2	participant 6	
youth G2	participant 7	
youth G3	participant 1	YP12AU
youth G3	participant 2	YP13AU
youth G3	participant 3	YP14AU
youth G3	participant 4	
youth G3	participant 5	
youth G3	participant 6	



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Information tools

The RMA workshops conducted with educational staff, adult learners, and youth constitute the main source of information used in this article.

Data analysis

The data analysis is presented in the tables below. A categorical system for the introductory meetings and the self-analysis workshops on needs and desires with each target group individually were established.

Code	Subcode
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 puposes
	4.2. Reliance for social puposes
	4.3. Reliance for work purposes

Table 3. Categorical system for introductory meetings

Table 4. . Categorical system for self-analysis workshops

Code

Subcode



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1.1. High confidence
1.2. Medium confidence
1.3. Low confidence
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.)
3.1. Self-taught
3.2. School or high school
3.3. Private academy
3.4. Friends or relatives
4.1. Social aspects
4.2. Security aspects
4.3. Management aspects
4.4. Technical aspects
4.5. Content aspects
5.1. High knowledge
5.2. Medium knowledge
5.3. Low knowledge
5.4. Contribution

Results

The categories for this study are divided into categories concerning the introductory meetings, the self-analysis workshops, and the findings of the mixed workshops.

INTRODUCTORY MEETINGS



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There are four categories of the introductory meetings for articulating the results of this study: advantages and challenges of participants' (rural) community; definition of DIGITAL SKILLS; caring about digital skills in their community; reliance on the use of digital services by them and their community.

1. In your opinion, what are the advantages and challenges of your (rural) community?

The participants identified the following advantages of their rural communities: strong support system and connection with nature, reduced stress and cost of living as well as mutual support and cooperation. An adult learner described the advantages in the following way:

"I see the lower stress levels and reduced cost of living in our rural environment here as true benefits. And we share a lot of common things together. And we also support each other in good and bad times. Like we did in covid time and as we do when someone has money problems." (AP3AU)

On the other hand, educational staff focused on the small class sizes and preservation of traditions.

Concerning the challenges of their rural community, the participants stated the following: limited exposure, mobility and employment, welfare and sustainability concerns. An adult learner described the following challenges:

"I believe the lack of good jobs, or jobs at all and the lack of welfare offers are the things that make me mad the most. Many of my friends moved to Vienna to study and they stayed there because they found a job. I think very soon, there will be no one here to live anymore." (AP2AU)

Educational staff underlined the limited access to technology and funding as well as difficulty in attracting qualified educators.

2. How do you define DIGITAL SKILLS?



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Concerning the definition of digital skills, the participants showed a good practical understanding and awareness of good and bad effects of ICT. The participants' use of digital skills focused on multiple use of ICT for leisure and personal growth. They also identified the effective application of ICT tools as a priority. In regard to creating they were aware of ways to contribute, not only consume. Furthermore, one school student identified a good potential in creating digital business in the video game industry:

"I would like to create new games, you know, serious games that can be sold. I know a friend who created a game for himself but they sold it for a big company." (YP7AU)

Regarding sharing the participants underlined the high importance of digital communication and the essential need to work collaboratively with other peers. One teacher made a definition of digital skills with focus on his profession:

"I think I will stick to my working field, so digital skills involve using technological tools and platforms to enhance learning experiences, share knowledge, and facilitate effective communication between educators and students even out of the classroom." (TP7AU)

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

The caring about digital skills by the participants was divided in three levels: great, medium and low importance.

Concerning great importance the participants regarded digital tools as mandatory for educational and inclusive purposes and the use of ICT as imperative and inevitable due to high tech advancements. A teacher put this in an educational context with a reference to the COVID pandemic:

"Very much! We saw how important digital skills and tools are when learning at schools is not possible because of situations such as covid. I can't imagine how



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students would be able to continue if we did not have sufficient skills and tools." (TP9AU)

Regarding medium importance, the participants showed a good level of practical exploitation and benefiting from ICT.

Finally, concerning low importance the participants showed a lack of awareness about the role of digital skills in their community and a low awareness for the potential of digital skills in rural areas. One student indicated that digital skills have no relevance for his profession:

"I am learning to become a barber, it does not change much for me." (YP12AU)

4. How do you and your community rely on the use of digital services? If so, for what purposes?

The reliance on the use of digital services was divided into reliance for educational, social and work purposes.

All participants identified digital services as very important concerning reliance for educational purposes. One adult learner stated the use of ChatGPT in this context:

"I like to use ChatGPT; I do not let it do my work but it helps me to find creative ideas and it makes many things simpler." (AP4AU)

Regarding the reliance for social purposes, professionals preferred ICT to socialize out of work. Furthermore, the ICT power for community development was well known by the participants. Finally, one school student identified digital services as a connection beyond the own box:

"Digital services are our window to the world; we use them to connect with friends and family, stay updated on global news, and for good time with Netflix." (YP5AU)





In regard to reliance for work purposes the following findings could be extracted from the participants' narratives: ICT enables and simplifies learning from each other, it has a significant potential to improve learning materials and experiences, and it opens doors for normal and digital business. There is also a full understanding and high level of prioritization of ICT for students and the community.

SELF-ANALYSIS WORKSHOPS

There are five categories of the self-analysis workshops for articulating the results of this study: confidence with participants' level of digital skills; digital tools that they use or are aware of/familiar with; acquisition of digital skills; more important aspects of digital skills in their teaching and digital skills with the need of improvement; knowledge about Coding, Robotics, Microcontrollers and web-development, 3D modelling and printing and their contribution to their daily and working life.

1. Are you confident with your level of digital skills?

The participants' confidence with their digital skills was divided into three levels: high, medium and low confidence. Participants from all groups indicated confidence in all of those three levels.

Especially young participants showed a high confidence and that digital navigation is their second nature:

"Growing up with technology has made me very confident." (YP5AU)

Concerning adult learners, high confidence was often linked to an extensive hands-on experience. For educational staff the interconnected synergies between personal learning and work increased confidence in their own skills. Furthermore, formal certifications were indicated as an additional support.



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Concerning medium confidence school students showed a good level of comfort and security with familiar digital environments. Adult learners and educational staff showed in this context a good level of comfort with common tools, but struggled with advanced technologies.

Concerning low confidence adult learners and educational staff showed feelings of overwhelm and ineffectiveness due to rapid technological advancements. Furthermore, it was stated that youth is partially left behind and cannot cope with the very fast digital development:

"When I saw the info details of this project and invitation to the sessions, I realised that I am far away from what is going on." (YP12AU)

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

The digital tools that participants use or are aware of or are familiar with were divided into social networks, creative tools, gaming tools, and media tools. Participants from all three groups listed social networks and creative tools.

Concerning social networks all participants indicated the use of various tools for multiple purposes. Additionally, a teacher stated the use of social media for professional purposes:

"WhatsApp and Telegram are crucial for my daily communication; they help me stay in touch with family and friends easily, but also with colleagues at work." (TP7AU)

Regarding creative tools youth participants indicated their use primarily for artistic expression and personal presentation. For adult learners, confidence in creative tools correlated to enhanced design and editing skills. For educational staff, learning digital tools was often linked to the career path. However, there is also an increase of using digital tools to make learning more stimulating:



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"I use CANVA and MIRO for my classes and I am trying to learn podcasting tools to record lessons." (TP7AU)

The use of gaming and media tools was only stated by school students for both leisure and social networking.

3. How did you acquire your digital skills?

The acquisition of digital skills by the participants was divided into four categories: self-taught, school or high school, private academy, and friends or relatives. Adult learner participants indicated the acquirement of digital skills in all categories. Youth participants indicated the acquisition in all categories except for private academies, which was also the only source indicated by educational staff.

Self-directed learning and online resources were indicated as pivotal for selftaught digital skills. Additionally, online tutorials were of huge value to youngsters:

"I would say that YouTube is my digital teacher." (YP5AU)

Concerning the acquisition of digital skills in schools or high schools both school students and adult learners indicated that schools play an essential complementary role in digital education:

"I think our school system in Austria is quite advanced and prepared me quite well for the digital world." (AP2AU)

Regarding private academies, these institutions were not of huge importance unless the individuals were seeking a formal certification. However, ICT providers played a vital role in equipping teachers with digital skills.

Finally, concerning acquisition of digital skills from friends or relatives, peerlearning is a real accelerator of digital education.



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4. Which aspects of digital skills are more important in your teaching and which ones would you like to improve?

The importance and improvement of digital skills is divided into five categories: social, security, management, technical and content aspects.

For youth participants digital etiquette and online collaboration were essential social aspects with importance and need for improvement. Educational staff underlined the role and power of teachers in mobilizing resources to support the youth. However, they also indicated the lack of methods in this context. Furthermore, active participation of students in online trainings was a priority for teachers. Adult learners did not contribute to this category.

Participants from all three groups indicated importance and need for improvement in connection with security aspects, especially concerning privacy, cyber and data security:

"Practicing safe online behaviours would be nice especially that our digital footprint is increasing and AI-powered chatbots are used more and more." (AP4AU)

Additionally, safe participation of students in online trainings was a priority for teachers.

With regard to management aspects, the focus for older participants was more on work, professionalism and productivity. However, resistance concerning change management was also indicated:

"To convince our organisation to use an app like SLACK to coordinate the work." (TP7AU)

In terms of importance and improvement of technical aspects, encouraging creativity is a driving force for more digital education and productivity remains a high priority for all participants.



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Concerning content aspects there is a dilemma between lack of time for improvement on the one hand, and a high importance on the other hand.

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 daily and working life?

The participants' knowledge concerning emergent technologies was divided in three levels: high, medium and low knowledge.

Only educational staff indicated high knowledge of emergent technologies, which enables the creation of interactive and tangible educational materials:

"With my advanced skills in coding and web development, I create interactive educational platforms for my students." (TP7AU)

All three groups indicated medium and low knowledge. In this context educational staff stated the integration of basic ICT skills and elements into lessons.

With regard to the contribution of emergent technologies to the participants' everyday and working life, all participants perceived that the contributions were career oriented.

MIXED WORKSHOPS

Three categories were used during the mixed workshops: which are the most important presented needs and offered digital skill areas in the project for them and their community; sharing of ideas to be introduced and that could be ideal to propose together with planned initiatives concerning the project; one word feedback concerning the sessions.



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1. Among the needs that were presented, and among the digital skill areas offered in the project, which do you think are the most important for you and in your community?

The results of this question are presented in the table below:

Skill/Tool	Points
Micro controllers	8
Robotics	7
3D printing	45
Web development	46
Coding	12
Graphics design	32
Office programmes	33
Video production	10
Chat GPT	21
Audio media production	5
SAP	1

Table 5. Most important presented needs and offered digital skill areas

The participants indicated that the most important skills or tools is web development with 46 points, followed by 3D printing with 45 points, Office programmes with 33 points, graphics design with 32 points, and Chat GPT with 21 points. The least important tool was SAP with only one point.

2. Since we're all here together, it is better to share some ideas to be introduced and that could be ideal to propose together with our planned initiatives. Do you have some ideas to propose?



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In one of the mixed groups, it was discussed that the project offer would enrich and fit well into some of the apprenticeship trainings covered and in which trainers could facilitate these parts at the different training locations. In another workshop the discussion was about if the project offer could be connected with ECDL qualification of both all trainers and the students. No specific additional ideas were mentioned in two of the mixed groups.

3. At the end of the session, we can ask for 1 word feedback about the sessions.

The answers of the participants to the one word feedback as well as the number of the same answers are indicated in the table below:

Answer	Nuber of same answers
Nice surprise	
Helpful	4
Boring	
Interesting	13
Intensive	
Encouraging	2
Refreshing	
Desire for more	
Useful	3
Useful project	
Look into the future	
Exhausting	
Good exercise	
Talk	
New format	
Exciting	

Table 6. One word feedback



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A big group of participants indicated that the sessions were interesting, several participants indicated the sessions were helpful, useful and encouraging.

Discussion and conclusions

It has become clear that youngsters wish for more than just the basics when it comes to digital education. While many have a foundational understanding of computers and standard office programs, they express a strong desire to go deeper and learn more - but they are lacking confidence and support. They wish to gain a broader and more comprehensive knowledge of digital tools and understand their vast potential, not just in an educational setting but also for their future jobs.

In addition to mastering traditional tools, youngsters are eager to explore newer emerging technologies. Many of them are already aware of artificial intelligence and they even use some of the tools such as ChatGpt. They understand that the world is rapidly changing, and being digitally competent is crucial. Furthermore, they emphasize the importance of online safety, indicating their awareness of potential harm on the internet. They wish to understand how to protect their personal data and ensure secure navigation of websites. They are also aware of digital addiction especially through gaming, and they wish to have other alternatives to balance between their phones and social life.

However, their desires don't stop at individual growth. They hope that local authorities would play their part by developing more online platforms and services tailored for the community and its actual needs. Such a move would simplify access to information and resources for all. Moreover, they believe in collective learning. They stress the importance of their peers and the role of



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their friends and even siblings in the community attending digital training, ensuring that everyone, irrespective of age, is competent in digital tools.

They highlighted the role of schools in their potential digital journey. They wish for educational institutions to integrate more advanced platforms and offer advanced courses, such as programming for older students in order to stimulate their intelligence, not feeling silly or stupid because of easy stuff. Their excitement was immense when discussing innovative tools like laser cutters, modelling, and 3D printers, but more specifically AI. They hope for schools to acquire such equipment and ensure that everyone, from teachers to students, is well-trained in its usage, thus paving the way for a more tech-savvy and futureready rural youth.

Most important, educational staff is well aware of their role in navigating the digital education and digital transformation among their students. They are also aware of their own weaknesses and strengthens and areas of improvement. Trainers have a good understanding of the digital world, combined with adaptive teaching methods to address ever-evolving technologies. Their forward-thinking curriculum design takes into account future trends, ensuring sustained relevance. With a collaborative spirit, they foster a community-centric learning environment, adeptly guiding students through challenges with their strong problem-solving skills. Open to feedback, they continually refine their teaching approaches. There is also support from higher management and leadership positions in their institutions who are actually prioritizing internal further education in the area of digitalisation. Their hands-on proficiency with digital tools allows them to draw from diverse disciplines, ensuring holistic teaching that resonates with the varied experiences of their students, all while emphasizing inclusivity and innovation. They recognize the personal own development in the last few months as a result of shifting to online learning because of the COVID pandemic.



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Adult learners show a great depth of understanding, drawing from diverse experiences to offer insightful perspectives on the digital needs of their demographic. Their engagement and adaptability to the evolving digital environment is evident. They display not only a keen awareness of the current digital landscape, but they also showcase a forward-thinking mindset, anticipating future aspirations and their wishes to cope up with changes and continue improving. Additionally, their willingness to collaborate, problem-solve, and provide constructive feedback enriched the discussions, showing their commitment to fostering positive change in the digital world and its education. And very important, the fact that they are aware of how they can use digital tools to create business such as freelance and drop-shipping. Such alternatives are great opportunities for rural areas as they do not require any emigration or travel.

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