Interview guide – WizARd Evaluation

The analysis of the interviews conducted after participants have used WizARd, is currently in progress. Detailed results of our evaluation of this tool will be presented in a future publication.

As a preview, we present some insights from our participants as part of our paper for the track "Call for Demos and Resources".

General:

1. **What was your first impression when using the tool?**
   - Concept of WizARd is a good idea
   - Innovative, intuitive
   - Easy to use, straightforward interface
   - Working with a tablet and AR feels strange at first, but innovative
   - For some use cases, using AR with a tablet will be impractical as hands-free use is not possible
   - Use of tool for laymen is very advantageous. Process takes longer, but overall you get better quality and lower error rate
   - AR content placement in the real world is sometimes finnicky or ends up inaccurate

2. **What did you find particularly easy / good? Why?**
   - Handling of the user interface is easy
   - Using the tool can be learned very quickly
   - Modelling of process steps works great
   - AR guidance can be used to intuitively illustrate and explain difficult work steps

3. **What did you find particularly difficult / bad?**
   - Using WizARd hands-free is not possible, could be a problem with dirty or oily hands
   - A Smartphone would be more suitable for following instructions than a tablet
   - Placement of AR content is difficult, at least in the beginning
   - For embedded video a play button should be displayed, it is confusing that you have to tap on the video again to start it

4. **Which functionalities do you find helpful?**
   - Using AR to both create work instructions and follow them

5. **What type of information delivery do you find most useful when using AR? (Text, images, or annotations?)**
   - Pictures and video
   - Tether to find a specific spot, tool or part in the room is very useful
   - This depends on the profession of the user, employees with technical background have different needs than non-technical colleagues

6. **Could you imagine using this tool in your daily work? To author AR scenarios / Process Guidance Systems yourself or follow them while working?**
   - Yes, I would be the creator of instructions for other employees
   - Yes, no one wants to read 100-page manuals for a process
   - Yes, I would use it for recurring use cases
   - Incidents and malfunctions must be handled quickly. Video / AR support would be very helpful here
   - For authoring an instruction, a tablet is very suitable
   - Displaying instructions should be done through a mobile phone for easier handling
   - For my work I will probably be unable to use it, but I think it could make sense for some colleagues, especially for physical processes
   - It makes a lot of sense for a production facility with standardized processes.

7. **What would need to change for you to use AR applications?**
   - It should be possible to download already-made AR-instructions to the device via a web interface
   - Enable modelling and following of AR guidance on mobile phone
   - A better way to quickly jump back and forth between steps during the use of an AR instruction (e.g. an overview of all steps of the instruction to select the step you need)
   - It should be possible to capture and embed video clips directly in WizARd

8. **What use cases do you see for this AR authoring tool?**
   - Instruction of new employees
   - Troubleshooting of technical equipment and systems
   - Replacement of special components - if you do this, you should also document it with WizARd right away
   - Instructions for standard processes could be passed on to external partners and customers so they are able to carry out certain processes themselves, at least to some extent
   - Use in sales and webinars

9. **Do you find the assistance provided by augmented reality practical and timesaving?**
   - Yes, It would be well suited for my job
   - Yes, we often have the same steps as we use a modular structure, e.g. changing oil filter is usually the same
   - For service, it would make sense to represent simple, standardized processes
   - Practical for simple processes and not for overly complex processes.
   - In total, you are able to save time spent on teaching and you don't have to explain things multiple time, independent learning is also facilitated

10. **Where would you see potential difficulties?**
    - Modelling of very complex processes
    - Our machines are similar, there could be slight differences which could lead to the software not recognizing the components / displaying wrong components
    - The handling of a tablet is often difficult or unpractical compared to handheld devices, it should also run on a smartphone for easier operability; at least enable the use modelled instructions on phones
    - Using the tool on a tablet in confined spaces or on a ladder

Question to ask to a service technician: (analogous for other activities / jobs)

11. You are called to a service assignment and you do not know how to maintain/repair a certain part. When this happens, what do you do about it?
- Call an expert on the phone to ask them for instructions
- Check if there is already a video tutorial for this process

Other
12. Are there any other comments or things you want to mention?