Can you imagine any specific scenarios where this representation would be useful?

* Having information about the workflow in addition to the information on the screen. This could replace a whiteboard behind the desk or a third monitor and would be way more pleaseant to look at.
* nice informative way to visualise the modules within a workflow
* I think this is similar to my VR answer in that I think the spatial component of planning workflows etc. could be really useful for better visualization of work processes.
* to get a first overview of complicated workfows. to sort them push away stuff oyu dont want to focus on right now. definitvly for shorter workflows though. otherweise too overwehlming
* When adjusting a specific part of the workflow, it might be useful to move irrelevant tasks out of the way to focus on the relevant parts.
* Instead of only text it is also 3D objects or more interactive material
* when the workflow is overly complex, it is good to have an ovierview of just the stages, where you can decide whether or not you want to go into one of the stages. Getting an overview is much better like this when the objects can be moved around in space relative to each other, but still stay tethered to one another. The structure becomes clearer when they are pulled apart, but their connection is not lost.
* For learning and exploring complex workflows, to obtain additional information about the programs and data in a workflow
* Nested structures
* During the analysis of a big workflow model which may not fit on a normal screen

#

* Example: Transcribing an actual RNA sequence, or performing an experiment to test out your handwork before handling 'real-life' equipment.
* Large workflows where one application flows into several more could be represented very well.
* für mich selbst neue anordnungen treffen und andere nutzer mitzunehmen
* Virtualisierung von Erkenntnissen
* to structure information for example in companies or in crimnology cases
* When the workflow regarded is rather small (because of the limited viewable area) or when trying to allow others to better understand the workflow in a less scientific/complex way.

-

Medicine

Was there anything that stood out to you?

* The main issue was the limitation of the device, i.e. the hand tracking accuracy and resolution of the camera and display, and the weight of the headset. I could see myself using a similar software with a more advanced device.
* entering each individual modules to see the workflow, and the ability to move the functions around,
* "I really liked that you could move the work packages around freely. It was super fun to reorganize them and make them fit my own preferences when it comes to planning things and how I would set these up.
* I think the arrows between work packages could be changed slightly to be less visible or intrusive, maybe. I would have loved a slider for the arrow visibility in an options menu for example! I preferred the VR app, because it had more information available. I think I would have liked some more quality of life features, such as clicking on work packages to get more info, or having a legend of all workstages so you could switch freely between them."
* "+ very intuitve usability
* - arrows were over the descriptions of the Applications.
* - everythign said Application in big on the top. could just say the specific application instead. For input and output it is cool but iIdont need to read Application 20 times on a page.
* - coudl have more moveability between stages
* + seemed very sturdy. stuff stayed where i put it, and had no problems grabing and moving things"
* I am not sure if the ability to move singular boxes closer or further away helps with maintaining an overview over the workflow. I think I would prefer if i could move the whole graphic closer and further away (zoom), but keep all the tasks locked to that same distance .
* -it was fully 3D, widgets/UI could be moved in all directions
* "LIKED: the ease with which the nodes could be moved, and even through each other, so I had complete control over the structure. But the sructure was still not lost, which was good. You could go inside each individual stage, which meant that I did not need to subject myself to more information than I wanted/needed.
* DISLIKED: there were no pop-ups to to give more information. no starting or ending arrows, so I was not sure where everything starts. Perhaps the start could be marked with a diferrent shape, or a separate start node altogether. Seeing all the steps in one place was a bit much, and if the workflow gets any more complicated, it could be a bti messy."
* see audio recording
* I liked that I was not completely absorbed in virtual space like with VR
* I liked the possibility to select the single steps of the workflow and the dynamic character of moving boxes around, e.g. to focus on a specific step.
* i liked the ease of rearanging the moduled to my liking,
* "liked - tactile feedback, ability to move stuff around
* disliked - lack of input involment from the surroundings"
* "- The ability to sort the workflow myself was very helpfull
* - The possibility to actually have application steps next to each other was good."
* no
* "war ganz cool mit den Händen zu arbeiten und die Felder so zu bewegen wie man wollte
* war aber weniger übersichtlich als VR Anwendung"
* the way you can move the objects to create a better overview
* What I liked was the way one could interact with the different cards of the workflow. Shifting them around rearranged the other cards automatically if they were to collide. Somewhat interesting was the 3rd dimension where one card could be moved behind another, yet I don't see this as really helpful if you can only watch the workflow from one position in a 2-dimensional way. If the workflow gets too large then all the cards sharing one orientation rather than facing the user may reduce visibility of cards on the edges of the screen.
* the steps to use the application
* Do you have any additional feedback or suggestions?
* The color coding similar to the VR application would be useful to see how data flows.
* "not sure if it's necessary to use a VR headset to achieve this type of visualization, simply a web interface and do the same thing.
* Maybe the benefit of VR is not fully realized in this way of visualization"
* This seems really useful for groups again, as you can collaboratively set up a workflow and discuss it as you go. By adding features such as the ability to mark packages as complete etc. I can imagine this could be a really nice alternative for other apps that just display work packages as regular lists for example.
* "see negative points above.
* - arrows were over the descriptions of the Applications.
* - everythign said Application in big on the top. could just say the specific application instead. For input and output it is cool but iIdont need to read Application 20 times on a page.
* - coudl have more moveability between stages"
* It would be nice if direct navication between the detail views of the workflow steps would be possible. That would save the time used to navigate back to the overwiev. Navigating back is also the least seamless part of the experience, since it requires the user to look down on their own hand.
* Different color theme? Less aggressive bright
* A start node. Pop-ups to give extra information. A reset button to bring the stuff back into its original spots.
* The arrows were difficult to follow for me so the layouting needs some work IMO
* The possibility to switch from one process step to the next one would be convenient.
* sah aus wie eine Power Point Präsentation und weniger ansprechend für mich
* it would be great to add pictures and statistics in order to unterstand it better
* It would be better, if the arrows connecting different workflow elements were always layered behind the cards, so as to not block the cards contents.
* ich fands cool aber wahrscheinlich anstrengend für die Augen wenn man die Brille für eine längere zeit benutzt

good luck for your study

What did you think of this application?

* Having not tried "proper" AR before I was really amazed by the ability to view the information in my normal surroundings. I really enjoyed working with it and could see myself working with future versions/devices.
* Intuitive, simple, informative
* It was also really fun to use! Since I have very little experience with AR apps, I was surprised by how easy it was to move around the workflow components. Although, the pinching motions felt very unfamiliar, and took me a little to get used to, I think it would be easy to get used to this by using this app frequently.
* very cool and usable. intuitev. a bit overwehelming on the first look into each stage. thats why good idea to not have all stages there at once.
* The application provides an interesting new way to interact with the flow chart of the workflow. I think that for just viewing and understanding the workflow, a static representation might be more helpful, since (for me personally) it often helps if I can associate specific tasks with a position in the graphic representation. However, when it comes to actually changing parts of the workflow when the user is already familiar with its components, this representation might be very helpful.
* easy to use, nice quality from the Quest 3
* very cool visualiation!! a bit too much at times because there is so much, but once you pull the things apart, overview is very comfortable and easy to take in. The start and end are hard to see because their is no big arrows to indicate. I did not have any feeling of accomplishement though. But if the goal is only to visualise the steps, then it is fine.
* I like it, see audio recording for details
* Enjoyable and a good mix of overview and details. There is probably lots of potential in layouting with 3D
* Its a great way to interactively show what the process is about and how the tasks are connected to each other
* i found it very interractive and quite intuitive, but the button to get back to the stages takes some getting used to and is in general unintuitive to find.
* I liked the application and found it too be very tactile. Since, Playing around with all the nodes felt very enganging. I would assume this would feel more rewarding with using actual items to get a sense of the workflows (items apart from text). Also the application did not require my surroundings anyhow, it would have felt more intriguing if the exercise had something to do with the surroundings. This example was specific to workflows so it is fine, the suggested application is mostly for other usecases.
* It was a very intersting application that helped me understand the workflow much better.
* sehr interessant hat spass gemacht, dass ich dort selbst tätig sein konnte
* "war zu erst verwirrend aber danach ganz lustig zu benutzen
* die VR Anwendung war leichter"
* it was very interesting and has a lot of potential
* "It's an interesting way of getting to know workflogs in general, though the advantages over a monitor display may be limited with the current design.
* The workflow in AR feels quite immersive and may allow for a better structuring by being able to arrange elements intuitively, but the space in which one can operate is limited where compared to a computer application, one could just shift around the current window of focus.
* What I liked was that one could grab certain workflow elements and move them closer to allow for better investigation of the cards contents.
* I think this application allows for a better basic understanding but may be limited in terms of complex work on the workflow."
* "- am Anfang sehr überfordernd aber nach einer gewissen zeit gewöhnt man sich dran
* - gute Anwendung für visuelles lernen"

Interesting

Do you have any additional feedback or suggestions?

* The color coding similar to the VR application would be useful to see how data flows.
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