



Individual Design Walkthroughs with Professionals

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Project:	ATLANTIS – AuThoring tool for indoor Augmented and dimiNished realiTy experiences
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Abstract:	This report gives an overview of the individual design walkthroughs with professionals that were conducted during the project.

Introduction

As a complement to the user tests (see Report 6), which focused primarily on non-expert/non-professional users, a series of 18 individual interviews and walkthroughs of the ATLANTIS tool were conducted with potential professional users (i.e. those who could have a potential use for the technology in their business).

The sessions were carried out in parallel with the other user-based testing activities conducted during the Autumn of 2021 and Spring of 2022. They were conducted individually over a longer time period. The sessions were conducted with furniture retailers (3), craftsmen/furniture carpenters (6), architects (3) and interior designers/homestylers (6).

Most of these sessions (14) were conducted with professionals that had not seen the app (or prototypes earlier). 4 of the sessions were 'follow-up' walkthroughs with those who had seen it in an earlier interview or walkthrough and were asked to comment further based on recent developments/updates to the app.

Roughly half the sessions were conducted in-person (face-to-face meetings) and half online (via Zoom, using screen/camera sharing to walkthrough the tool).

In addition to these 18 sessions, at a trade fair in Berlin during May 2022, a series of shorter interviews were conducted in-person with 9 experts/professionals with an interest in planning tools.

The aim of all of these combined interview/discussion and test/walkthrough sessions was to validate the current design of the ATLANTIS app with professional users and gather feedback from a business perspective.



The test room that was set up especially for the interviews in Linz.

Results: Individual design walkthroughs with professionals

During the interviews, input has been gathered so far in relation to the following topics:

Low awareness of "DR" – The vast majority of professionals needed to be informed about what DR (Diminished Reality) was and how it could be put to use in the context of a planning tool. This is important

to have in mind both when considering how the ATLANTIS tool is presented to the target audience and also in relation to how DR-related features are made apparent in the user interface.

Supporting technology - Most felt it was important that the tool was an “all in one” solution, i.e. that the tool would not be reliant on other additional software or hardware solutions (e.g. a requirement for a panorama camera, though some could consider getting one later if using it could increase their efficiency/profitability) in order to scan in and plan rooms. Several participants wished to see a solution that wouldn’t become “one more tool” but instead would also replace other planning/design tools that they used today (e.g. interior designers/homestylers wanted to have functionality to support “mood boards”, furniture carpenters wanted integrated production planning functionality).

Speed and simplicity - The strength of the tool was seen as being in its speed and simplicity. In many commercial situations there isn’t time to spend doing huge amounts of measuring and the approach of being able to simply ‘scan off’ the room and then add/move around furniture quickly was appreciated. This was seen from several perspectives:

- Being able to quickly and efficiently capture everything that could be relevant in a room for later reference (rather than having to take many individual photos/measures and inevitably missing something).
- Having everything immediately saved/stored safely and being able to quickly ‘empty’ a room or see it in its original state.
- Being able to include their notes / other data together with a plan so they have everything in one place.
- Handling groups of furniture (e.g. a dining table and chairs) without necessarily having to add/manoeuvre each individual item of furniture separately.
- To be able to make quick changes directly on a mobile device whilst ‘on site’ with a client in order to visualise a new idea for furniture that is being discussed, or to be able to visualise the consequences/potential of a particular change to a room.

Accuracy requirements varied - All wanted high accuracy but in practise the requirements varied here - those who could work with fitted/custom furniture units (e.g. furniture carpenters) required millimetre whereas for those working with more overall planning (e.g. homestylers) then accuracy of a few centimetres was more than sufficient. All needed to be able to trust the dimensions and understand exactly what level of accuracy they could expect.

Furniture catalogues - There were questions about how furniture catalogues would be connected/integrated into the tool and access to a variety of these was seen as vital. Some mentioned that catalogue content could be seasonal and thus ease of updating was important. The categorisation/structure of catalogues was also seen as important and that there should be good support for searching and filtering furniture. Furthermore, in some cases, there was the requirement to be able to make up their own catalogue of furniture (either furniture they manufactured or furniture they had in stock, in some cases even second-hand/refurbished – this could possibly be solved through ‘scanning in’ items of furniture).

Realistic colour and lighting - The professional users, like the consumers, ideally wanted to see high colour accuracy and realistic lighting. However, there was a realisation that this couldn't be a half-hearted approach and that if it wasn't sufficiently good then it could be unhelpful in some situations.

Consider use and infrastructure - If the tool is to help with layout/furnishing suggestions then ideally these should consider the specific usage situation and room characteristics (e.g. how many people will be in the room, extent of TV usage in a living room, placement/size of TV, placement of fixed light sources).

Support 'imagination' and collaboration/sharing - Several professionals stated that a key strength they saw in the tool was in its ability to help them convey design/layout/furnishing possibilities in a way that their clients could more easily relate to and actually 'understand' (as opposed to CAD drawings, formal floor plans, etc) and, furthermore, that this could support a more efficient and productive discussion around different solutions. To this end they felt that at least some level of collaboration/sharing support was important.

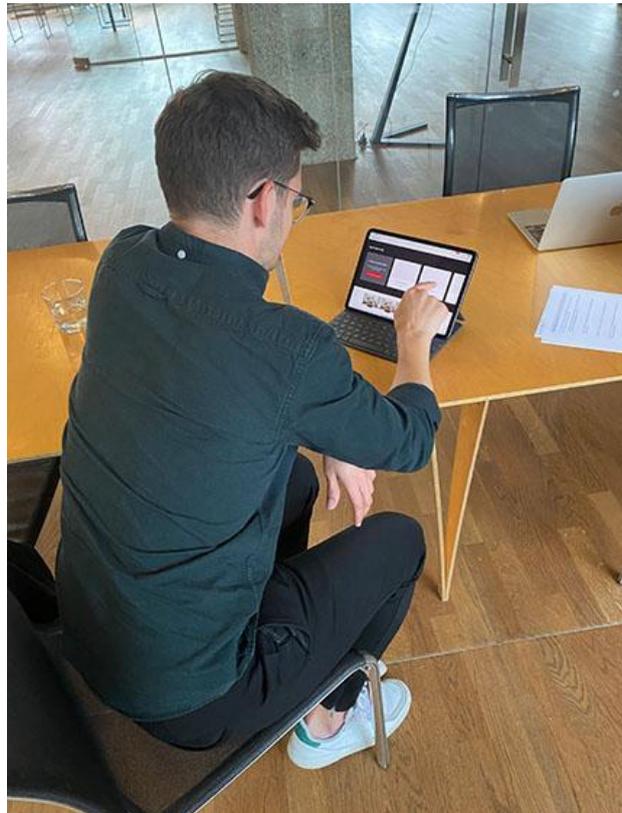
Room layouts - Views on the value of room layouts were somewhat mixed. Interior designers and architects felt this wasn't of much value to them as they wouldn't reflect the needs/personality of their clients. Some carpenters mentioned that they already worked with tools that could make such suggestions and which can be adapted to the needs/tastes of their customers and used as a basis for working further with them.

Complete product list - Being able to obtain a complete product list for everything to be included in a room (including decoration) was seen as an important function.

Different versions of plans - Support for handling different versions of plans was seen as particularly useful for certain projects where professionals needed to show their customers alternative design solutions and 'iterate' them. Some interior designers could, for example, provide their customers with several design suggestions (e.g. if a customer didn't like a proposed furniture style).

Licensing/costs - What professional users were prepared to pay for the tool varied considerably depending on the scope they saw for it to support their work and especially in relation to the first point above ("Support technology") - i.e. to what extent it was an "all in one" tool that could also replace other solutions that they paid for today. Professionals who might use the tool less frequently wanted flexibility (e.g. 'pay per plan', month-by-month subscriptions).

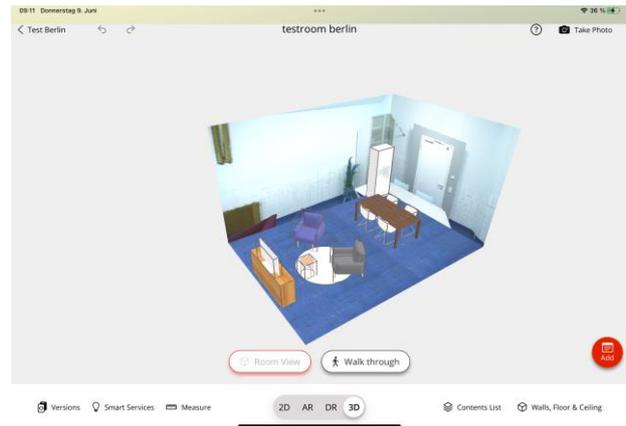
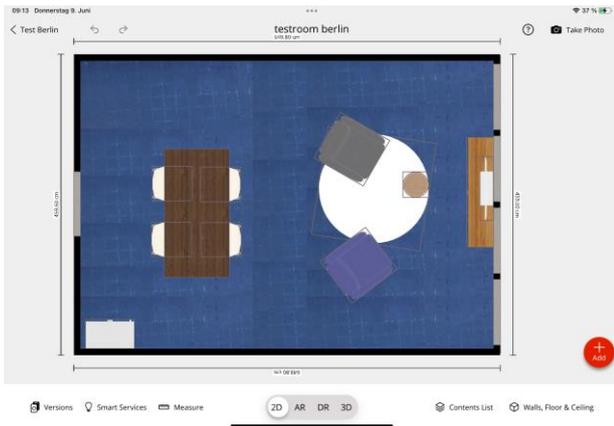
Most participants saw concrete benefits of using such a tool in their business, though many had high expectations with regard to how the app would integrate with (or replace) some of the other tools that they used. Some (particularly retailers) saw the tool as something that they wouldn't necessarily use themselves but that could be a benefit for their end-customers, to help them in imagining how furniture would look in their home.



Professional Interviews in autumn 2021 in the Roomle office



Impressions from the interviews in the Roomle office in April/May 2022



2D and 3D view of the scanned room.

More information

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