HOW THE WIZARDS WALTZ:

STATS FROM OVER 300,000 WALTZ OF THE WIZARD SESSIONS

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ALDIN
Ghostline Data Insights
www.ghostline.xyz

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Waltz of the Wizard is a virtual reality experience created by Aldin Dynamics that lets players feel what it's like to have magical powers. Players combine arcane ingredients into a boiling cauldron with the help of an ancient spirit trapped in a human skull, unleashing creative and destructive wizardry upon a fully interactive virtual world. The experience also allows players to travel to new places, finding themselves in mysterious circumstances full of detail and unforgettable atmosphere.

Waltz of the Wizard was designed to serve as a good introduction to what makes room-scale VR unique, offering a diverse experience and game mechanics that utilize VR to its fullest. The experience offers a believable reality to interact with — taking full advantage of the fact that players can physically behave in VR as as they do in the real world. *Waltz of the Wizard* is classified as compatible with standing play area setups, although it will be noted that it is designed for room-scale.

AVERAGE SESSION DURATION
19 min

PLAYER SESSIONS
300,000+

PLAYERS
100,000+

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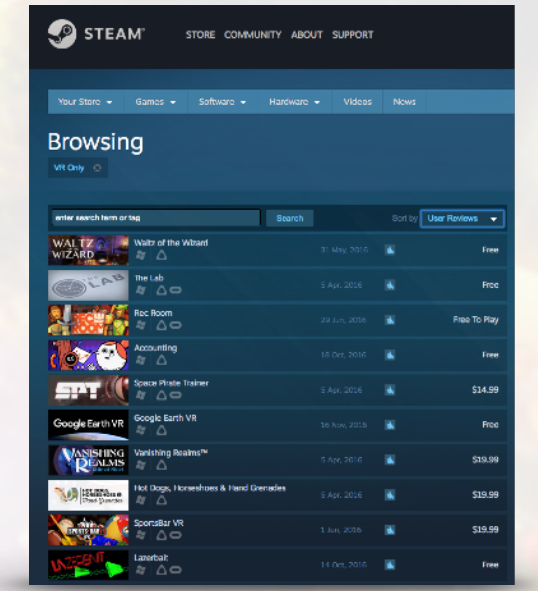
Ghostline

The data presented in this publication was collected anonymously and processed using Ghostline, an advanced analytics and visualization tool for VR created by Aldin Dynamics. *Ghostline* was vital in the production of Waltz of the Wizard, ensuring intuitive interactions and targeting development efforts to make the virtual world react plausibly to player presence and behavior.

APPROVAL RATING
99%

REVIEWS
600+

ADDED TO STEAM LIBRARY
160,000+



Screenshot from the Steam website (February 23rd 2017)

Userbase

Released for free on Steam on the 31st of May 2016, Waltz of the Wizard has seen over 300,000 sessions since release. The number of players has surpassed 100,000 as of the date of this publication.

Reception

Waltz of the Wizard was nominated in the 2016 Proto Awards for Best Interaction Design and, at the beginning of 2017, has become the highest rated VR app on Steam. The experience has received over 600 user reviews with a 99% positive approval rating.

Minimum requirements:	Recommended requirements
Intel i5-4590 / AMD FX 8350	Intel i7-4790
4 GB RAM	8 GB RAM
NVIDIA GeForce GTX 970 / AMD Radeon R9 290	NVIDIA GeForce GTX 970
2GB Disk Space	5GB Disk Space
Standing VR Play Area	Room-Scale VR Play Area

INTERESTING FINDINGS

OVER **50%** OF ALL PLAYERS
ARE 140-160 CM IN HEIGHT

37% OF PLAYERS WERE FROM
THE UNITED STATES

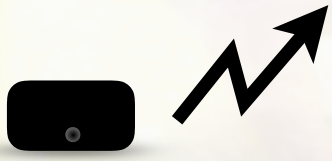
87% PLAYED IN ROOM-SCALE AND
13% IN STANDING PLAY AREAS

ROOM-SCALE PLAYERS WALK AROUND
32% MORE THAN STANDING PLAYERS

ROOM-SCALE PLAYERS LOOK AROUND
18% MORE THAN STANDING PLAYERS

ROOM-SCALE PLAYERS HAVE ON AVERAGE **19%**
LONGER SESSIONS AND **72%** LONGER LIFETIME
GAMEPLAY COMPARED TO STANDING PLAYERS

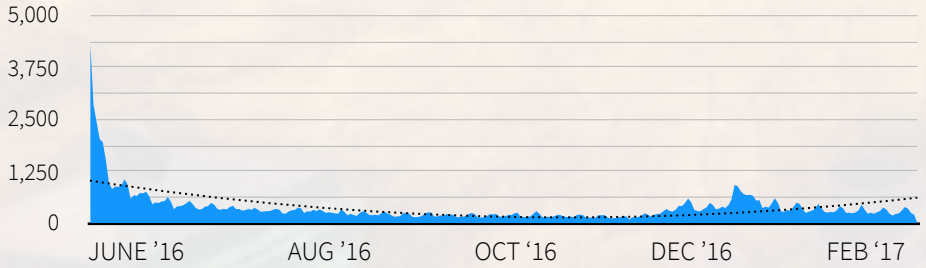
ON AVERAGE THE LARGEST PLAY AREAS ARE
IN CHINA AND THE SMALLEST IN JAPAN



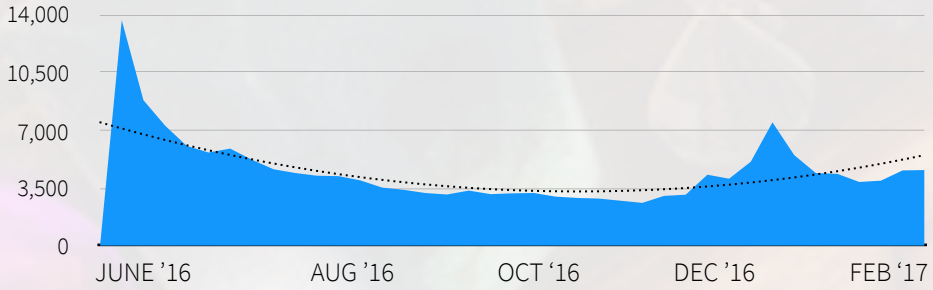
DOWNLOADS INCREASED BY **284%**
FROM NOVEMBER TO DECEMBER 2016

AUDIENCE

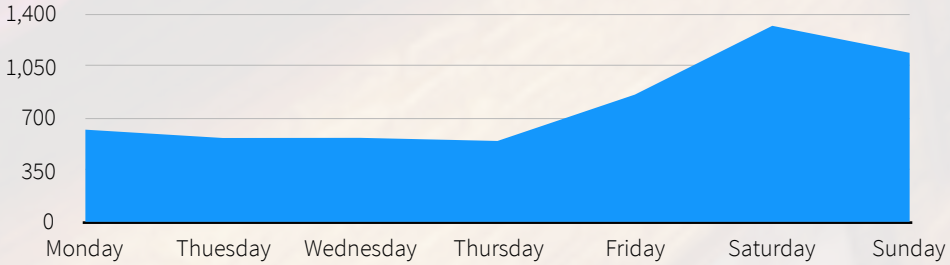
DAILY DOWNLOADS FROM RELEASE



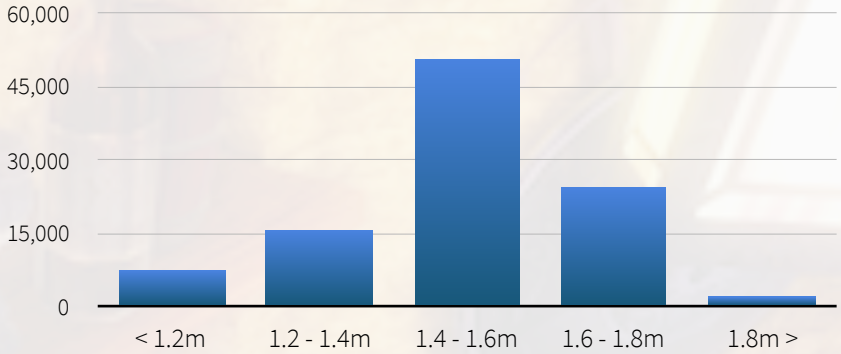
WEEKLY SESSIONS FROM RELEASE



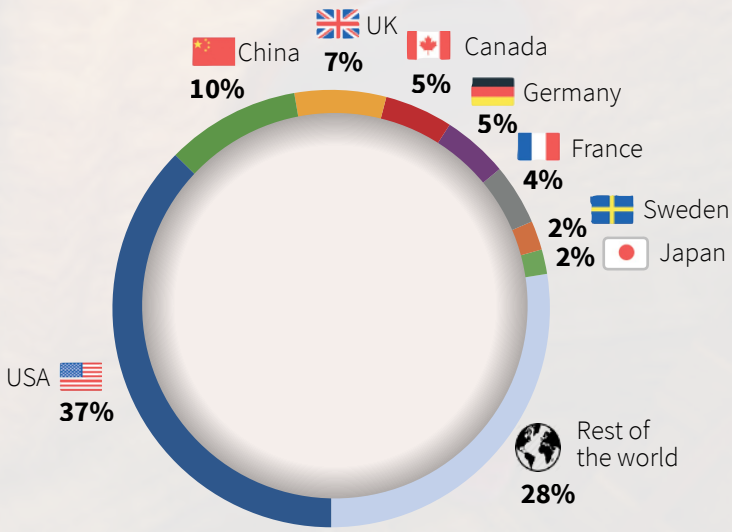
SESSIONS DURING A TYPICAL WEEK



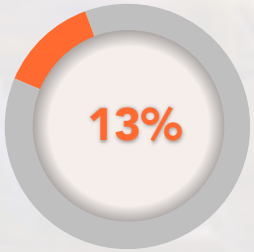
USER HEIGHT DISTRIBUTION



GLOBAL AUDIENCE



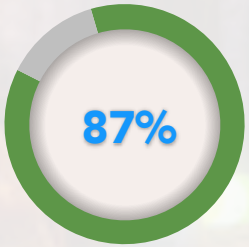
PLAY AREAS



STANDING PLAYERS

SESSION AVERAGE
16 min

LIFETIME AVERAGE
29 min



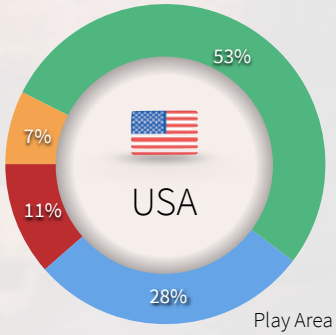
ROOM-SCALE PLAYERS

SESSION AVERAGE
19 min

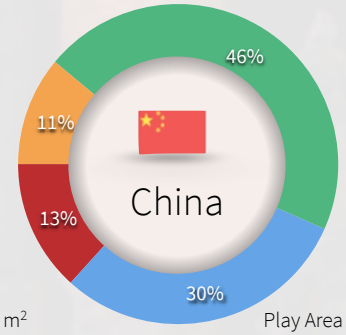
LIFETIME AVERAGE
50 min

COUNTRY PLAY AREAS IN SQUARE METERS

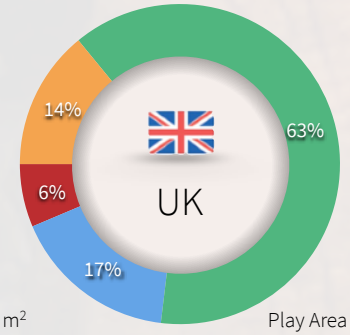
1m² 1-6m² 6-9m² 9m²>



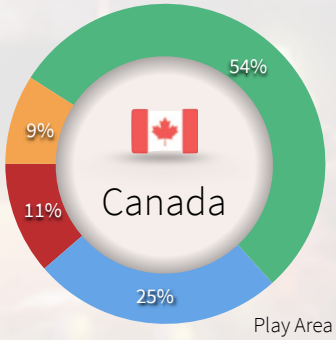
Play Area m²
5,8 (avg)



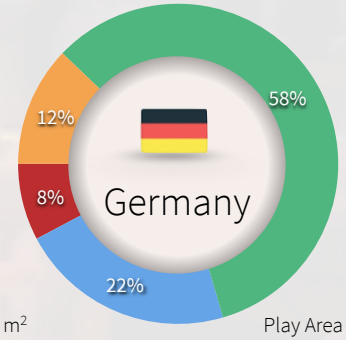
Play Area m²
5,9(avg)



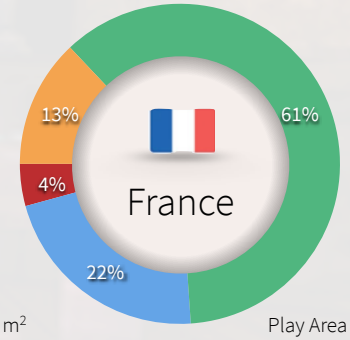
Play Area m²
4,8 (avg)



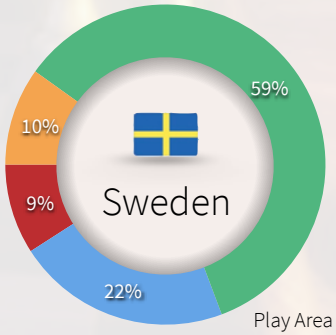
Play Area m²
5,6 (avg)



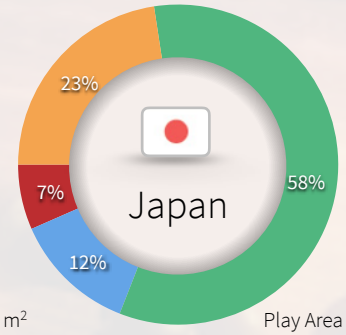
Play Area m²
5,1 (avg)



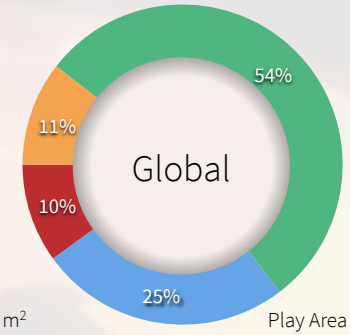
Play Area m²
4,8 (avg)



Play Area m²
5,4 (avg)



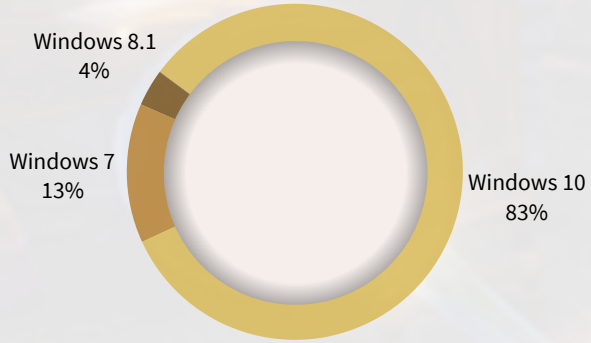
Play Area m²
4,4 (avg)



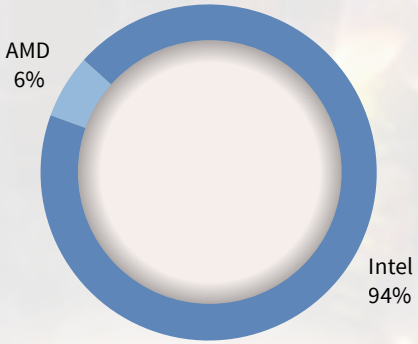
Play Area m²
5,5 (avg)

HARDWARE

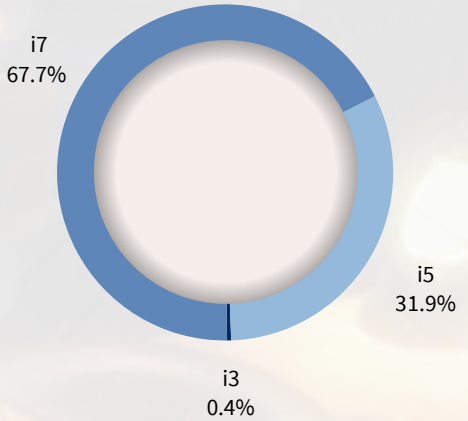
OPERATING SYSTEMS



CPU MANUFACTURERS



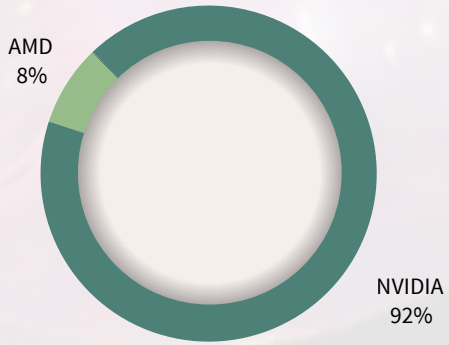
INTEL CPU TYPES



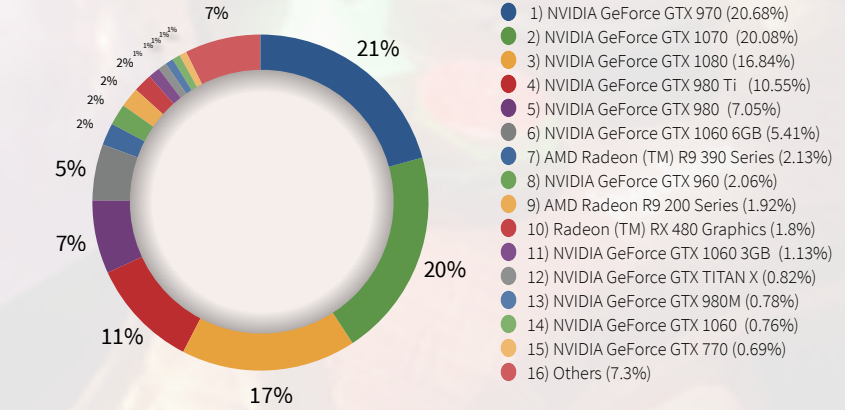
VR HEADSETS

Vive CV1	**94.78%**
Oculus Rift CV1	**2.89%**
Vive Pre	**1.81%**
Vridge	**0.22%**
Oculus Rift DK2	**0.15%**
OSVR	**0.04%**
Oculus Rift DK1	**0.03%**
Others	**0.08%**

GPU CHIPSETS



GPU TYPES



PHYSICAL BEHAVIOR

The following bar charts represent behavior activity levels for specific scenes in Waltz of the Wizard. Each scene is benchmarked against the average activity levels for the entire game (white centerline).

AVERAGE GAMEPLAY TIME

LOCOMOTION
physical movement

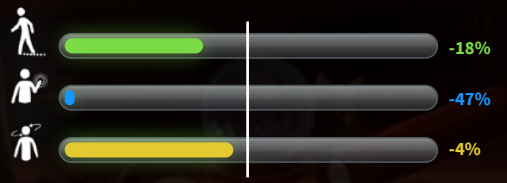
INTERACTIONS
button presses

GAZE
head movement in degrees

ENTRANCE

30 seconds

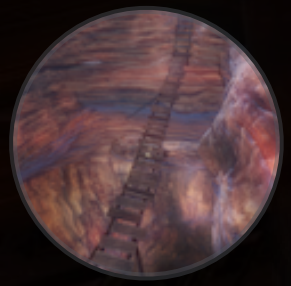
The initial loading scene before people enter the main wizard's tower scene.



WIZARD'S TOWER

10 minutes

Main scene is where users spend most of their time, offering a sandbox environment with a broad range of interactive elements.



ELEVATED

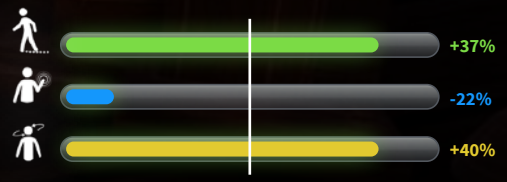
1 minute

Elevated places users on a narrow bridge over a deep chasm. The user has a number of small rocks he can throw down into the abyss.

HALLWAY

1 minute

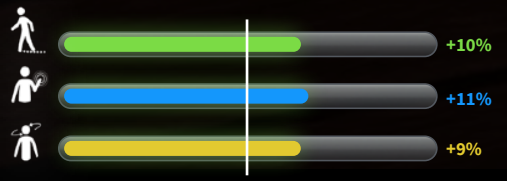
Hallway places users in a short cinematic scene designed to induce a fight or flight response. The user is offered a number of weapons to interact with while suspense is built through a combination of audiovisual events that hint at incoming danger.



THE TRIAL

4 minutes

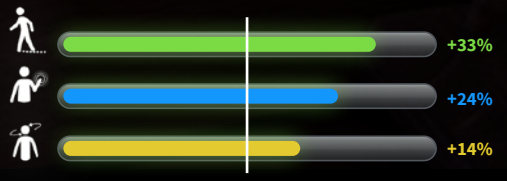
The Trial places users in another dimension where their physical movements are observed and commented on by ominous humanoid characters.



THE CELL

2 minutes

The Cell is a medieval prison chamber with a short narrative that users can listen to through a door. The scene contains a secret ring that users can discover hidden in a hole in one of the walls.



FUN FACTS

CROSSBOW BOLTS FIRED

19 million+

FIREBALLS CAST

14 million+

SPELLS MIXED

500,000+

SHOT THE WIZARD'S ASSISTANT

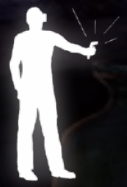
29,000+

PHYSICAL DISTANCE TRAVELLED

66,000 km+

ENABLED CO-OP MODE

14%



FOUND SECRET RING

3%

CROUCHED BY TABLE

34%

LAID DOWN ON THE FLOOR

1%

TOTAL TIME SPENT IN-GAME

13 years & 9 months

ADJUSTED QUALITY SETTINGS

13%

THREW SKULLY OUT THE WINDOW

5%

DROWNED SKULLY IN THE CAULDRON

17%

FOUND SECRET TELEPORTATION SCENE

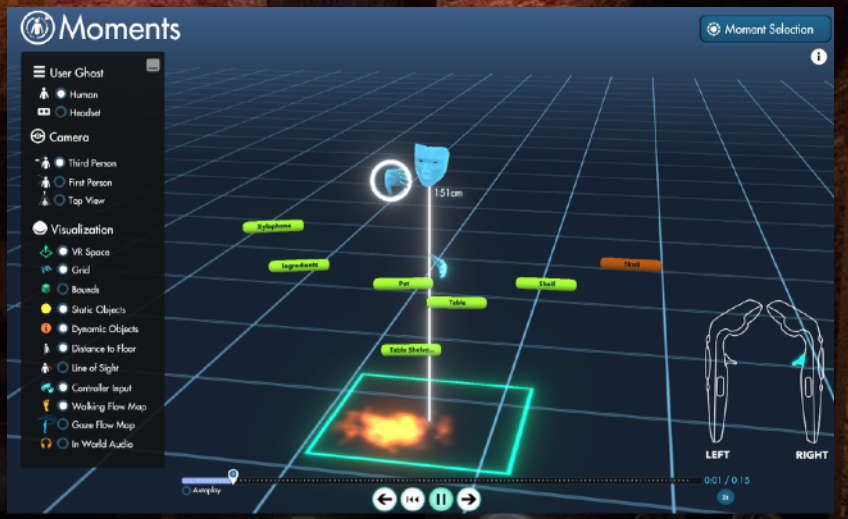
5%

GHOSTLINE

The grand vision for immersive experiences are believable worlds that make users feel as if transported to another reality. These are the types of experiences that Aldin has been striving towards since 2013, and the company has seen first hand just how many challenges there are in achieving even the simplest implementations of that vision. Interactive virtual realities are more complex than conventional software; they need to work with a diverse range of hardware, and take real-world factors into account such as user stature, physical agility and play area sizes.

Designing for VR and physical immersion is largely uncharted territory, presenting an entirely new range of development challenges and design factors. As a developer you have the power to invoke deeply emotional sensations as well as to cause unintentional physical discomfort. The smallest of details can make or break an experience. For this reason it is absolutely vital to pay careful attention to the user experience and ensure that your content is having the exact impact that you envision.

Ghostline revolutionizes the VR production process, measuring and visualizing new factors in VR user engagement to help ensure that the broadest range of users are having the best experience possible. For any type of VR content being created, Ghostline targets development efforts and offers invaluable insights into the complex relationship between user behavior, content design and VR system setups.



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