Voice Games

Past, Present and Future

Jeferson Valadares
Co-founder/CEO, Doppio

@valadaj

We are the world's leading voice game developer

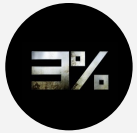
The complete voice games stack

- World-class team
- Cutting-edge technology
- Voice-tailored tools
- Growing player network

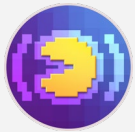
GROUNDBREAKING VOICE GAMES

Always pushing the envelope and challenging the status quo.

The Vortex



The 3% Challenge



PAC-MAN™ Waka Waka

Voice Quest

INDUSTRY RECOGNIZED EXPERTISE

Sought after by key innovators in the space

amazon · Google · SAMSUNG · NETFLIX · BANDAI NAMCO™ · zoom · WB · Mercedes-Benz · cerence

TOP GROSSING FOUNDING TEAM

Passion for games and the right experience and connections. Working together since 2012.

EA · BANDAI NAMCO · BioWARE · playfish · DIGITAL CHOCOLATE

The Simpsons · Dragon Ball Z · Harry Potter · minions · MASS EFFECT · DOCTOR WHO · NEED FOR SPEED · DRAGON AGE · FIFA

Voice

is the new touch

What are voice games?

Not quite audiogames

Real Sound Kaze no Regret (1999)

Not quite “noise games”

The Legend of Zelda (1986)

Voice-Activated

Not necessarily a new thing

Voice Chess (1973)

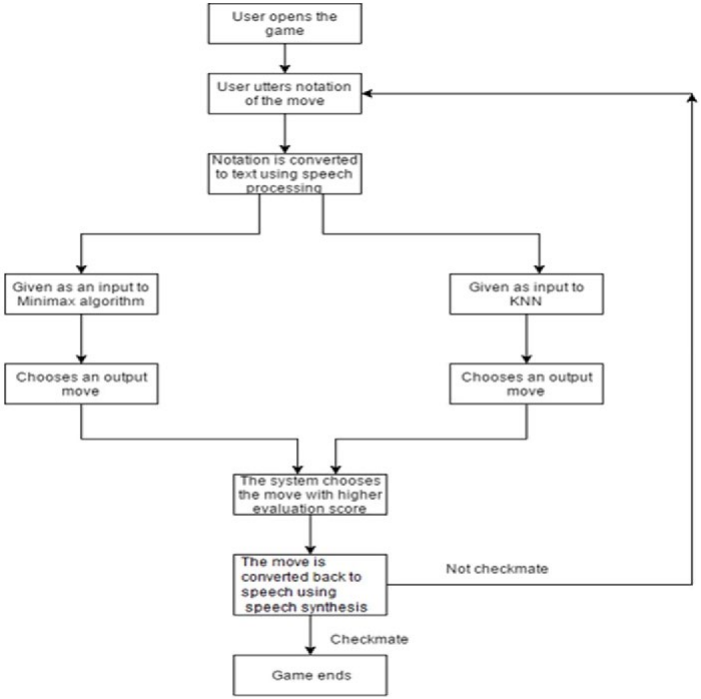
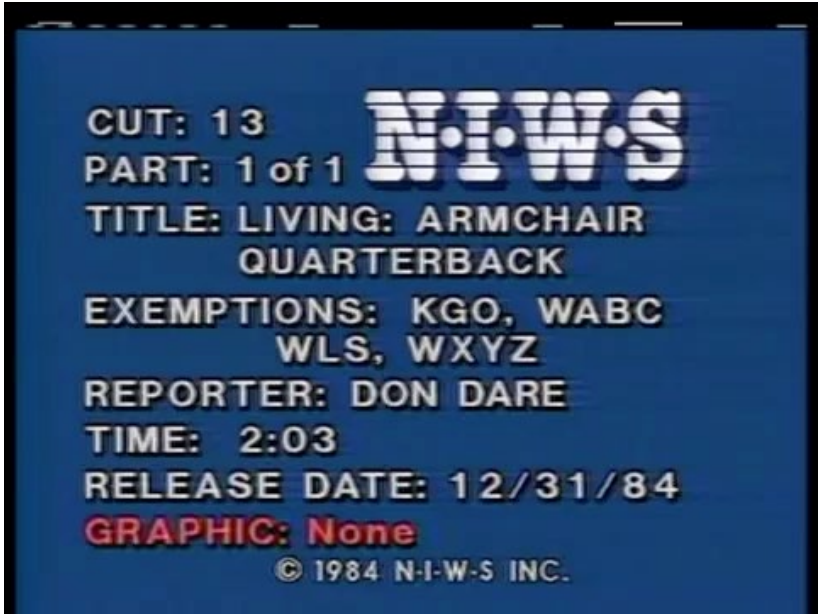


Fig. 1. Proposed system architecture

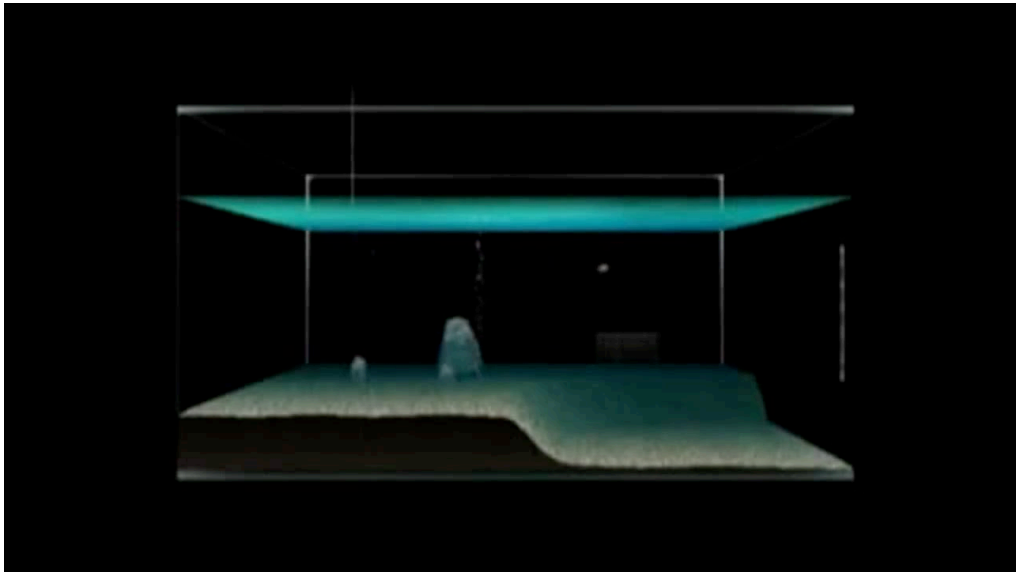
Not necessarily a new idea in games



Halcyon (1985)

Not necessarily voice-only

Seaman (1999)



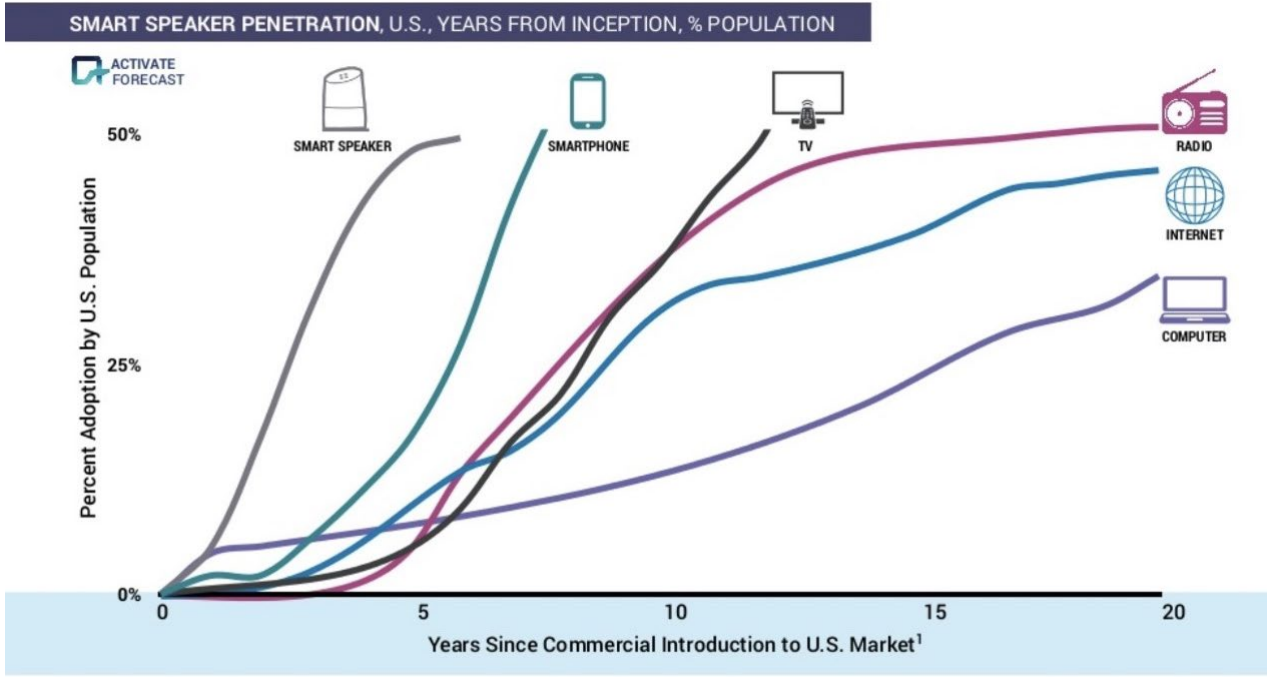
Not necessarily voice-only

Mass Effect 3 (2012)

Not just
Smart Speaker games

But.. Smart Speakers are driving their adoption today

Smart Speaker Penetration



1. Radio, TV, and computer measured as share of U.S. households. Smartphone and Internet measured as share of U.S. population.
Sources: Activate analysis, U.S. Census Bureau, World Bank

activate

THE WALL STREET JOURNAL. D.LIVE

So what can you do with Smart Speakers?

Knowledge / Trivia / Quiz

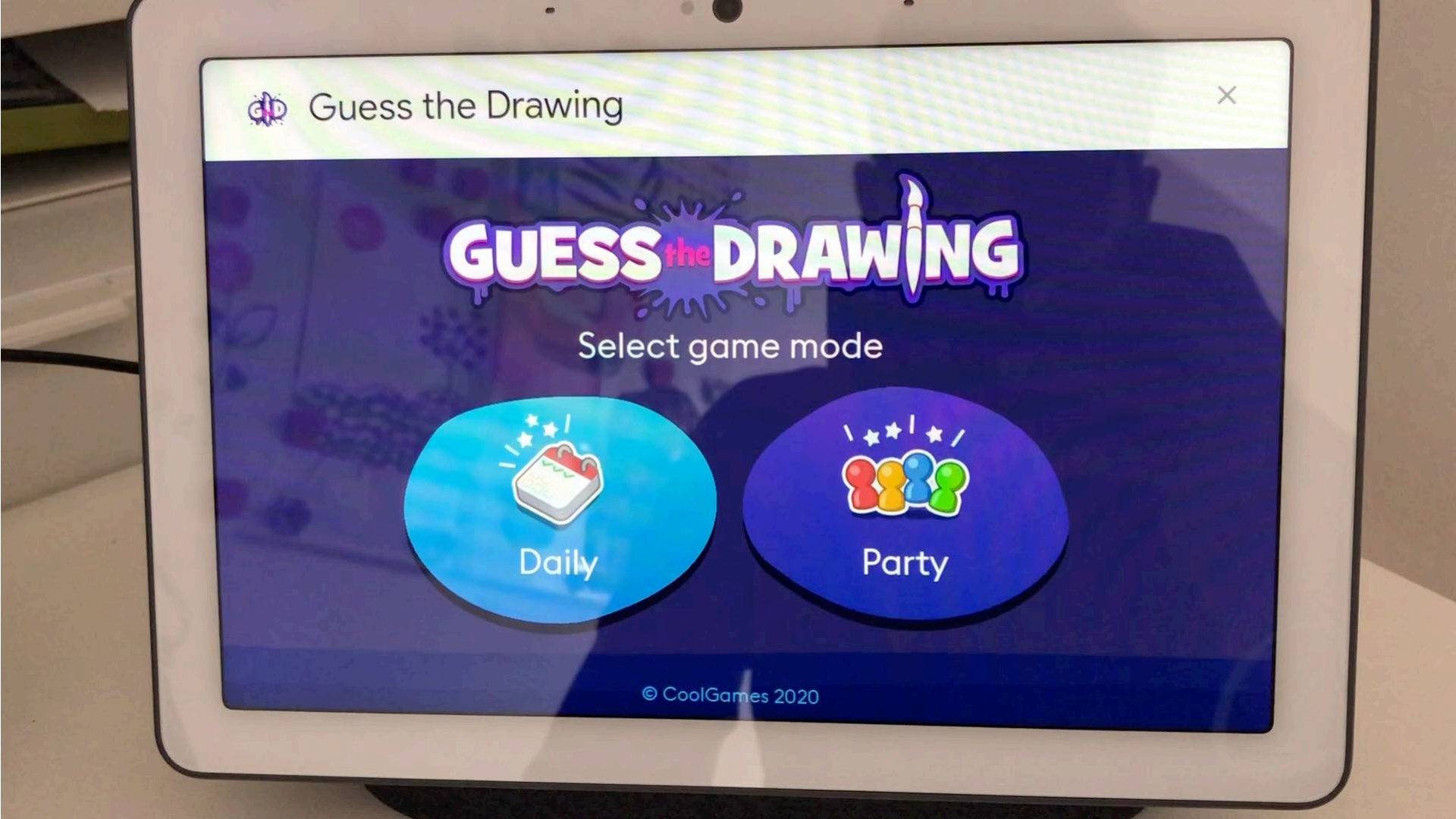
Jeopardy (2016)

Companion Experiences

Destiny Ghost (2017)

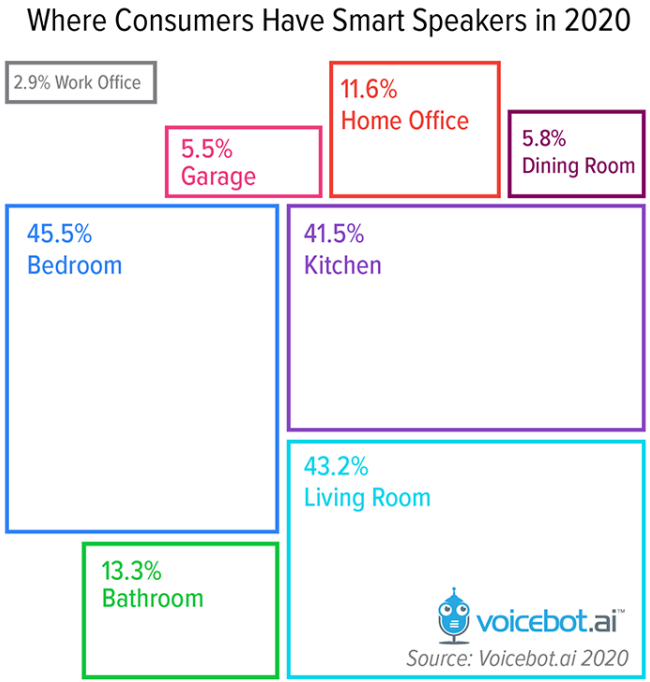
When in Rome (2018)

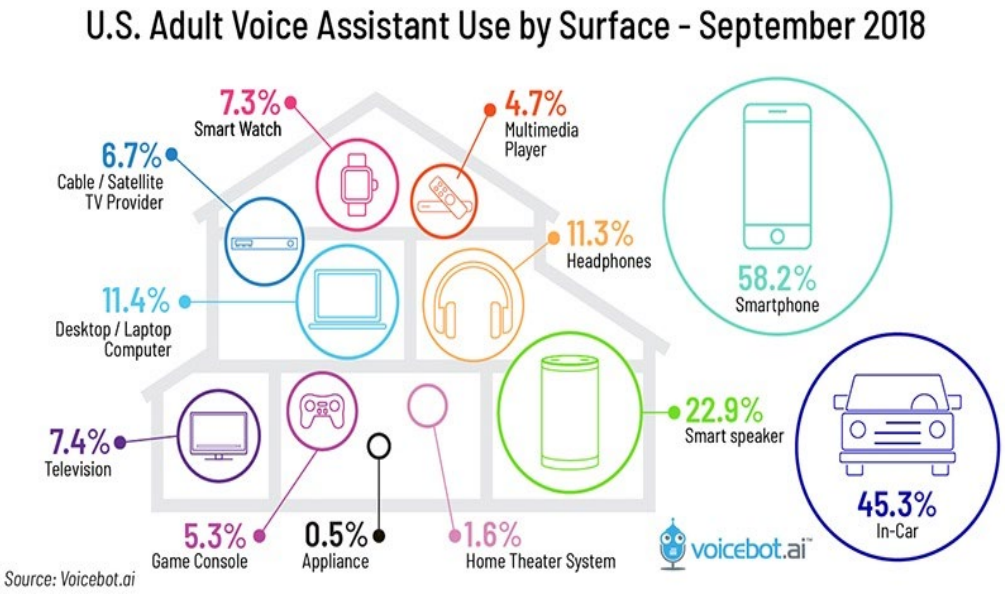
And now..
Smart Displays too!


Guess the Drawing
GUESS the DRAWING
Select game mode
Daily
Party
© CoolGames 2020

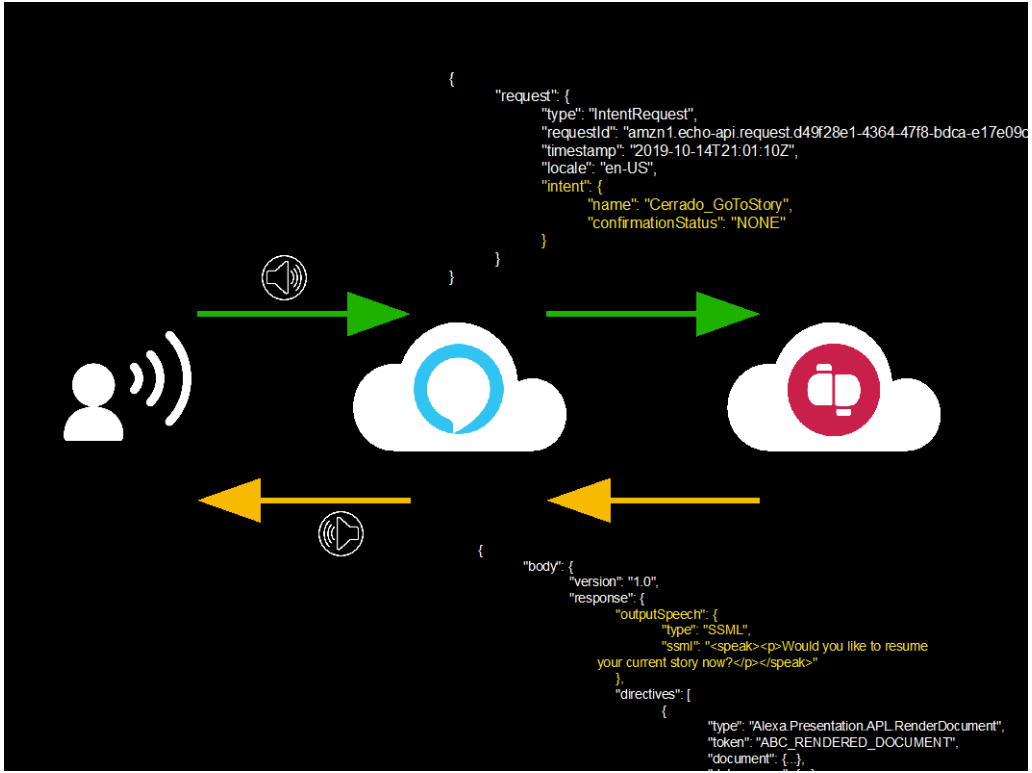
Audio Design for Voice Games

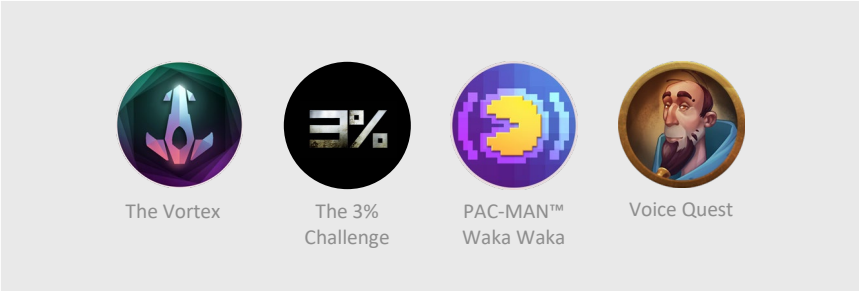
How do people use Voice Assistants?





How Audio Flows





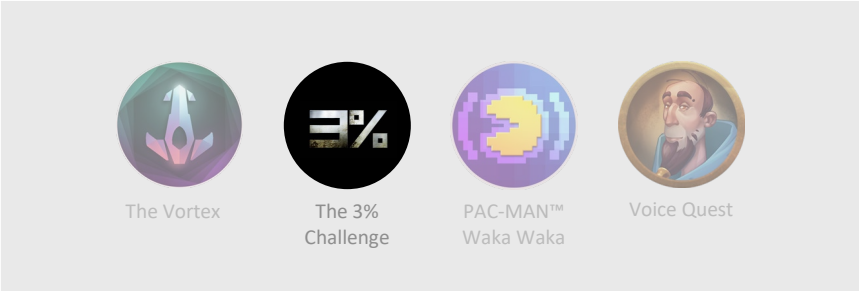
Our Audio Experience with Voice Games

First Iteration: Cross-platform Smart Speaker Support

MPL 017745-32
DOPPIO
THE VORTEX
Command a team of robots in an Adventure through Space
"Alexa, open The Vortex."
CDN 017745-54

Lessons Learned

- Pick your platforms and approach wisely!
  - Going Alexa First led to tons of limitations (no background music, no looping, low quality mono mp3 only at 24KHz/48KBps). Assistant was better across the board but came later, so we stuck to lowest common denominator for expeditiousness
  - Dynamic TTS for the dialogue: this decision drove even more limitations: 5 clip limit, no TTS and SFX at the same time (Assistant was better at this stuff too)



Next Iteration: More Voiceovers

THE 3% CHALLENGE

DOPPIO RIO GAMES

NETFLIX

Official Netflix Merchandise

© Netflix, Inc. 2019

The 3% Challenge

Based on the Netflix Hit Thriller

Original prequel storyline written in collaboration with the TV show writers

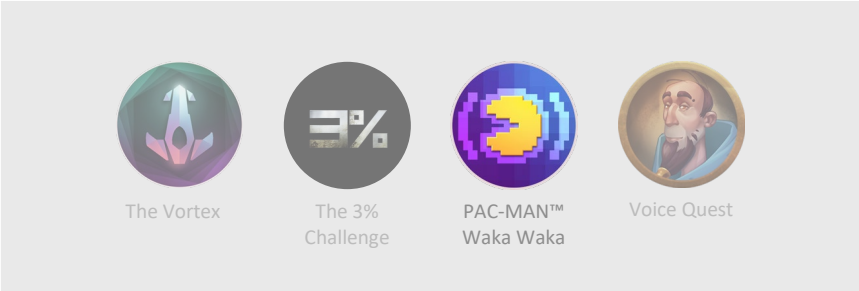
The lead actress of the series, Bianca Comparato, lends her voice to the game

Several custom-made voice-based challenges to test your skills

Compete with other players across the globe in weekly tournaments

Lessons Learned

- Lowest common denominator can make sense
- Can use a traditional VO pipeline: in our case enhanced by using TTS during development



Next Iteration: Alexa Web Audio

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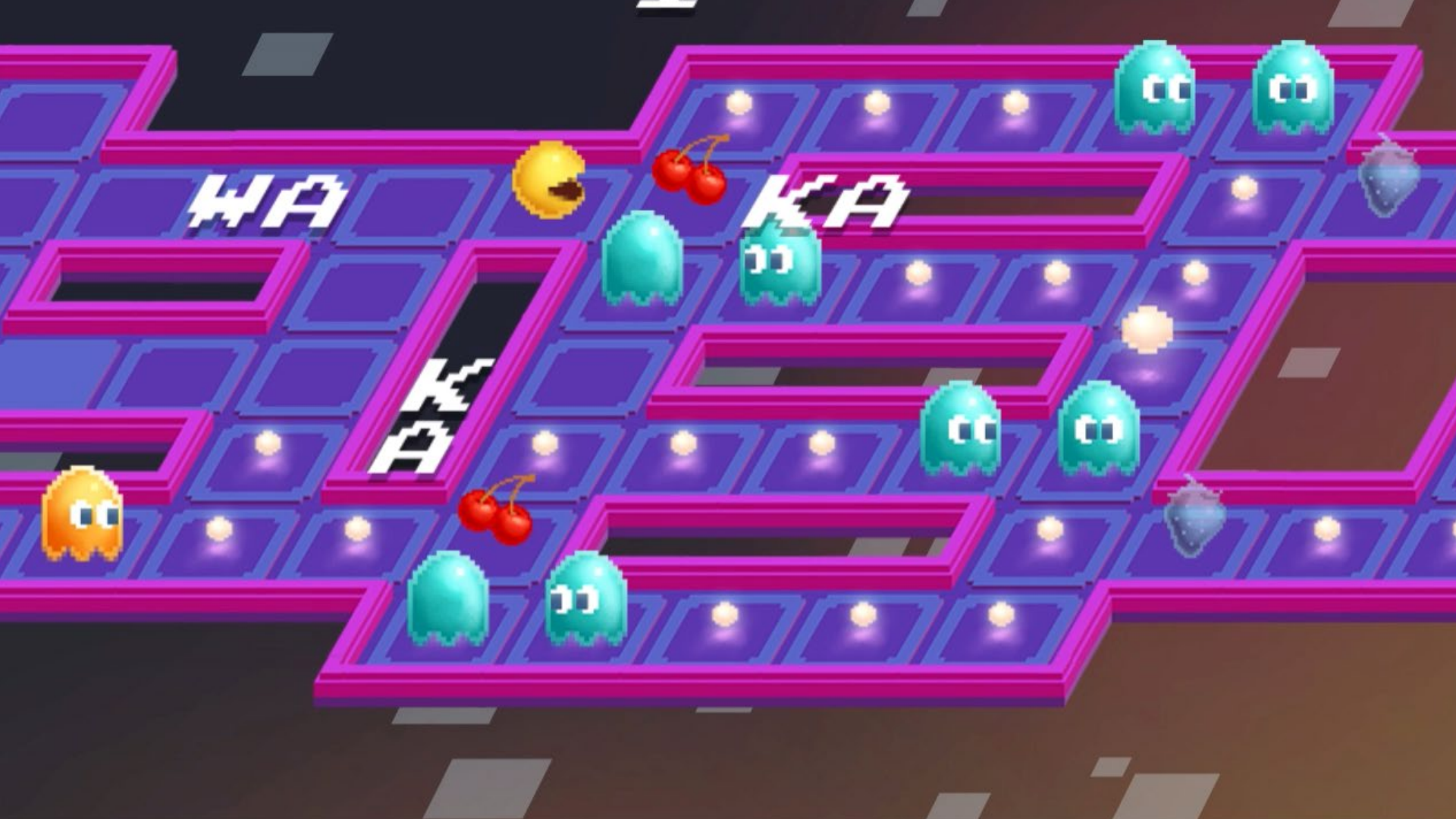
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Lessons Learned

- Full Web Audio: Full looping capabilities, music syncing with multiple layers fading in and out, random sfx variations, runtime audio effects (pitch-shifting in real-time for example)
- Taking more control of the microphone: allow animations to play out before prompting for input
- Finding the right quality: moved to ogg (better compression/sound quality) at 24kHz/96kbps (higher bit rate), most assets in mono (due to memory limits on lower-end smart displays) with a few in stereo

Next Iteration: Assistant Web Audio

VOICE
QUEST

Voice Quest

Lessons Learned

- More fluid microphone usage led to better satisfaction metrics
- Fine-tuned quality balance: still ogg at 24kHz/96kbps, but with more assets in stereo since we had less layers

Revisiting the Vortex

Lessons Learned

- Lowest common denominator is quite high now: bumped the sampling rate up to 44.1kHz (much better quality) as well as use some music/sfx in stereo; looping ambiences and sfx variations
- Sync it up: super-extensive use of SSML marks to have the screen update in sync with the narration

Bonus: Web Web Audio

JUST SAY THE WORD!

1UZOFJ Copy

Round: 4

0:59

Player: Jeferson

Team Yellow 500 points

It's sleuthing time!

1100 points Team Purple

Next Up

SunnyD

Jeferson

roaque

JAIL

Informant

Neha

Jess

nani

web speech state: End

transcript: tuxedo

stop meeting

Debug End Round

Debug Players

Debug Devices

Keyword debug

How to Play

Lessons Learned

- Full streaming microphone: ability to react immediately makes the experience seamless
- More memory, more quality: mp3 at 320kbps/44.1kHz (ogg is not supported unfortunately), stereo tracks and SFX

Final Thoughts

Summary

- Voice is a growing way to interact with games – and it’s deeply connected with audio
- Can do it in several platforms - Understand your goals and choose wisely
- You can do quite a lot these days, and things keeps on getting better!

Thanks!

@doppiogames