Game Audio Insights

Can Uzer

Summary

1. What is good game audio and how you can benefit from it
2. Good and bad practices for developers and audio designers
3. About game audio as a job
4. Q&A

About Me

- Prologue: Metal drumming.
- Side questing: Did a bunch of random things for a while.
- Started the main quest: Studied **Audio Engineering** in SAE Istanbul.
- Freelanced in **film and music**.
- Studied **Sound in New Media** (MA) in Aalto.
- Ran a solo **game audio** business for a few years (fancy way of saying freelancing).
- The quest continues: Joined **Rovio** as an in-house sound designer.
- *canuzer.com* for more info.

References

Good Audio?

Good audio is **engaging**

- Engagement: "The feeling of being compelled, drawn in, connected to what is happening, interested in what will happen next."

- Engaging sound captures player's interest and evokes meaningful emotions that expands gameplay narratives.

Capture interest.
Evoke emotions.
Expand narratives.

Providing valuable information

Sound provides important information visuals can't accomplish by themselves alone. Use meaningful sonic feedback to support the gameplay and guide the player.

Manipulating player's perception

Sound can make player actions feel more satisfying or real, more powerful or even weaker. Use it to create the placebo effect you want in your game design.

Sucking player into the game world

Sound has the ability to create an immersive experience due to its abstract and temporal nature. Use it to expand your storytelling beyond images and words.

Making the game memorable

You know if you played a good game if you still remember its tunes after years and how it made you feel back in the time. Find signature sounds, play to your strengths, make it memorable.
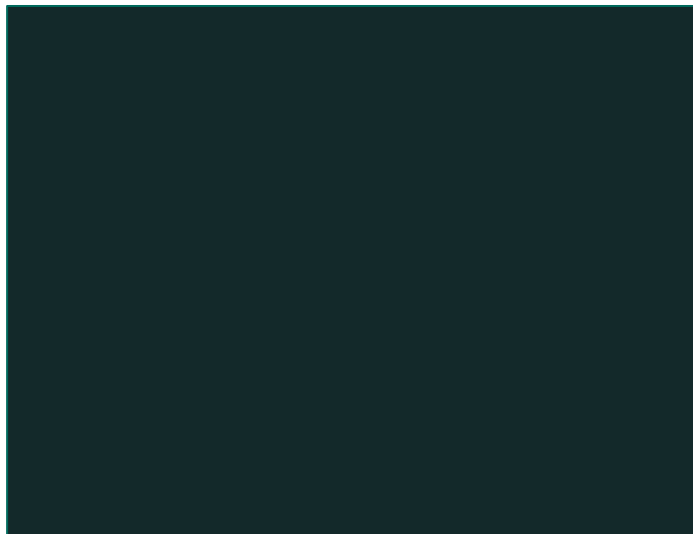
Maintaining clarity and fluidity

One can only perceive 2-3 sounds at a time. Keep clarity in the soundtrack by **decluttering stuff**, focusing on what's important beat by beat, and also transition from state to state in a smooth manner.

Good Audio?

- ○ Informative
- ○ Adds emotional value
- ○ Immersive
- ○ Memorable
- ○ Clean

Engagement is constructed by a series of small but meaningful decisions in both sound *and* other departments adding up to create a **coherent whole**.

The obvious benefits of good audio

- Readability
- Accessibility
- More emotional punch
- Alternative storytelling vessels
- Increases production value (bang for your bucks)

Some overlooked benefits of good audio

- Can change how certain visual assets look
- Reduces requirements on visual storytelling
- Reduces requirements in some animations
- Makes it easier to spot bugs
- Longer engagement (eg. increases time spent in-game)
- Contributes to positive nostalgia

Typical signs of audio that smells

- Repetitive elements (relationship between subtlety/impact and frequency/rarity)
- Annoying sounds
- Too static (little or no dynamism)
- Unbalanced levels (loud or inaudible)
- Missing sounds
- Too many sounds
- Lack of priority and focus
- Stylistic inconsistency
- Technical errors
  - choppy audio – bad optimization
  - crude transitions – bad implementation
  - incorrect positioning – bad spatialization (attenuation, occlusion, etc.)

Do's

- Include audio early on
- Spec out audio features well
- Iterate in small steps
- Leave time for test and debug
- Include audio in game design
- Include audio in the code structure
- Consistent naming
- Do multiple mixing passes in multiple devices
- Get feedback from players
- Back away, refresh your ears, re-adjust focus and declutter
- Choose your battles

Don't's

- Include audio in the last minute
- No specs provided
- Deliver everything in big chunks
- Not enough time for testing or not doing audio QA at all
- Audio is an afterthought in design
- Audio is an afterthought in the code
- Inconsistent naming
- Do the mixing in a single day with a single device
- Skip player feedback
- No decluttering, lack of focus
- Resources spread too thin

Main takeaways

- Keep in mind that sound is one of the most cost-effective ways to enhance your gameplay and convey narratives.

- Integrate sound in your production early-on to get the best synergy between audio and game design.

- Audio also needs time to fail and get better. Don't leave it to the last minute.

About game audio as a job

Roles

- Sound designer
- Composer
- Technical sound designer
- Audio programmer
- Voice artist
- **Solo audio artist**

- Audio director (or lead)
- Audio producer
- Voice-over designer
- Music designer
- Audio implementor
- Audio localization specialist
- Audio QA
- Sound recordist
- Foley artist

Workflow

- Sync with the team
- Envision and re-sync
- Outline and break-down
- Design
- Implement
- Test and iterate
- Re-sync
- Finalize

Beneficial traits to have for an audio artist

General stuff

- Sound/music nerd or enthusiast
- Gamer
- Tech-savvy
- Self-learner
- Problem solver

Artistic skills

- Conscious listening
- Foley performance
- Sound recording
- Music
- Voice performance
- Synthesis/sampling
- Game design
- Audiovisual editing
- Serve the game, not the sound only

Tech skills

- Sound engineering
- Audio implementation
- Game engines
- Programming/scripting
- General hardware/software knowledge
- Garbage in, garbage out

Social skills

- Clearly communicate specs
- Adequate amount of communication
- Audio evangelist
- Team player
- Receive feedback constructively

Business skills

- Entrepreneurship
- Networking
- Showing your face
- Showing your work
- Social media
- Sharing value
- Contractual rights

Main takeaways

- Game audio consists of multiple sub roles and tasks. Understand your strengths/weaknesses.

- Game audio workflow should involve lots of communication, testing and re-iteration. Keep up the team play.

- Game audio is a rapidly evolving art. Always be learning and experimenting.

TL;DR

- Audio is 33% of the experience. Don't half-ass it and utilize it well.

- Take advantage of a dedicated sound person who knows their sh*t.
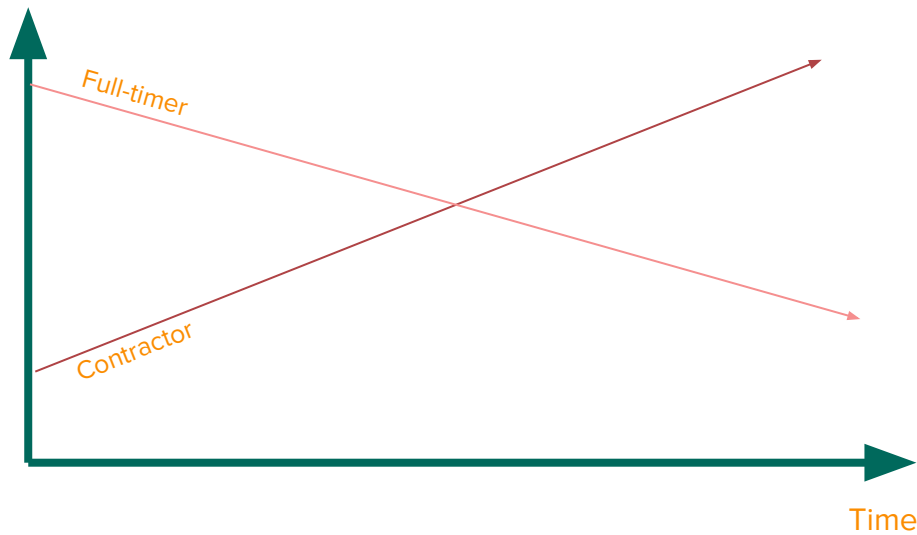
- Integrate audio early, not in the last minute.

Your game will thank you for it.

Q&A

Freelance vs. Full-time

- Responsibility
- Specialization
- Variety
- Freedom
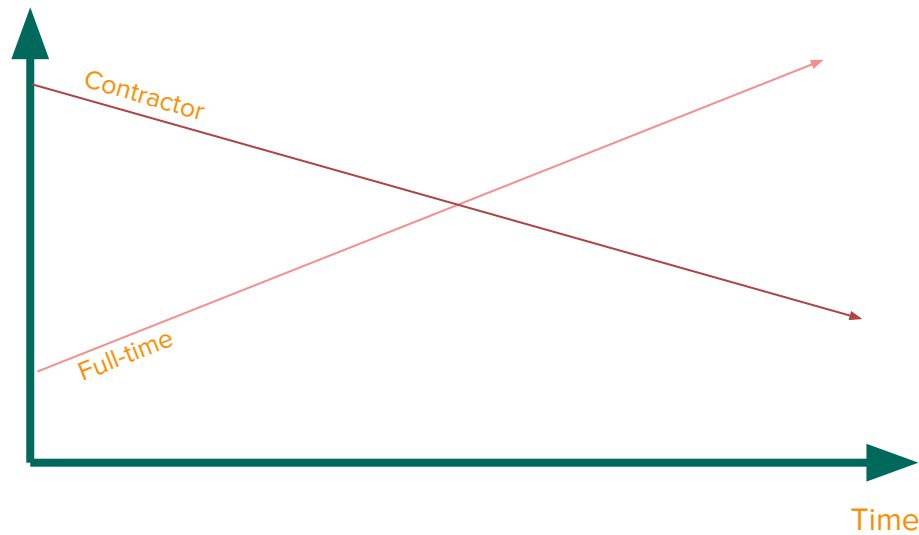- Security
- Hussle
- Barrier of entry

SCIENCE

Joy

Contractor

Full-time

Time

SCIENCE

Tips for success

- Have a good balance of artistic, technical, social and business skills, but also keep a strong focus.

- Be a curious gamer. Understand how games work and are built.

- Be realistic about your expectations from this line of work and work smart to achieve your goals.

How to design sounds which don't have good references?

- Pinpoint references

- Delve into the lore

- Think about the desired emotional impact

- Think about the required information to convey

- Consider stylistic consistency

- Consider frequency of this sound event

- Consider how it fits in the mix

- Use this opportunity to create your own signature!

- Use this opportunity to experiement and have fun!

Advices on balanced mix

- Focus on what is important (by game context and per sound category context)

- Declutter

- Export files with consistent loudness (might change based on sound category)

- Utilize dynamic mixing and states

- Utilize voice limiting

- Use a priority based mixer hierarchy

Thanks! Let's continue with Q&A.

CONCEPTUAL DESIGN METHODS
for GAME SOUND

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Check out my MA thesis if interested in the game audio discourse.

tinyurl.com/gamesoundthesis

canuzer.com