

Bodies in Play: Shaping and Mapping Mobile Applications

Banff New Media Institute

May 21, 2005 - 9:30am-11:00am

Presentation: Small Art - Small vs. Big Audio

Leonard Paul - VideoGameAudio.com

SMALL ART

Small vs. Big Audio

- * 'Growth' from large to small
- * Portables are becoming 'mobiles'
- * - Nintendo DS is getting VoIP
- * - PSP has hackable WiFi
- * Share games via WiFi for free
- * Many mobile games already ports

SmallVsBig-Banff-21May05-1paul@vfs.com

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Game Audio Returns to its Roots

- * Limited specs for mobile audio
- * - Similar to classic consoles
- * Compare PC, PS2, PSP...
- * 70kb for a game total->10% audio
- * Mobile tech 2 steps behind times
- * - 1st = PC, 2nd = consoles

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Synthesis vs. Sampling

- * Synthesis:
 - * - Pros: Small RAM, dynamic
 - * - Cons: heavy on CPU, more code
- * Sampling:
 - * - Pros: Easy to code, hifi
 - * - Cons: RAM use, brittle

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Challenges for Mobile Audio

- * Small speaker(s)
- * No surround sound (no sub)
- * Noisy listening environments
- * Using headphones can be dangerous
- * Many mobile phone configs
- * Poor API support for audio

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Options for Mobile Audio

- * Utilize older console tricks
 - * - Use every bit of RAM
 - * - Utilize synthesis
- * Update with server/bluetooth
- * Utilize realtime speech analysis
- * Enjoy lo-fi aesthetic

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Future of Game Audio

- * Synthesis, samples, fx & code
- * Compose using realtime Max/MSP
- * Audio rendered realtime like gfx
 - * - Physical modelling, FFT effects
- * Composers need to rethink audio
- * Keep in mind for mobiles

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