



Using the Limits of Technology

Pervasive Gaming

- ⇒ **Typically makes use of new technology**
 - New technology makes new experiences possible
- ⇒ **But new technology often is**
 - Not stable
 - Not high enough granularity
 - Have non-intuitive limits
- ⇒ **IPerG Perspective**
 - Not technology-driven
 - Gameplay-driven
 - Develop technology to support gameplay
 - Not always use technology the way it was intended



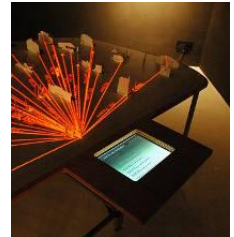
SMS

➤ Advantages

- o Can be send and received by all mobile phones
- o Already in widespread use

➤ Challenges

- o Only text
- o Only 160 characters per message



Day of the Figurines



Bluetooth

Advantages

- o Available on most phones
- o High bandwidth

Challenges

- o Long time to scan for other Bluetooth devices (up to 30 sec).
- o Not obvious which devices are Bluetooth devices
- o Uses significant power resources
- o Limit range (~10 m)



Insectopia



GPS

➔ Advantages

- o Works all over the world
- o Gives location (and in some cases height)

➔ Challenges

- o Low granularity
- o Only where sufficient number of satellites can be tracked
 - o Not indoors
 - o GPS shadows



Can You See Me Now?



RFID tags (Radio Frequency ID tags)

➔ Advantages

- o Can store digital data
- o Do not need physical contact
- o Can be read through thin material

➔ Challenges

- o Very short read range
- o Small amount of data can be stored
- o Only few systems allow writing
- o Only few systems allow several tags to be detected at the same time



Prosopopeia



Making fullest use of available technology

⇒ Conclusion

- New technology offers new experiences to players
- But understanding the limitations of a technology as important as understanding the fundamental functionality to providing a good experience
- Seeing technology as a design material and knowing that material is essential



Epidemic Menace



Thank you! Questions?

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