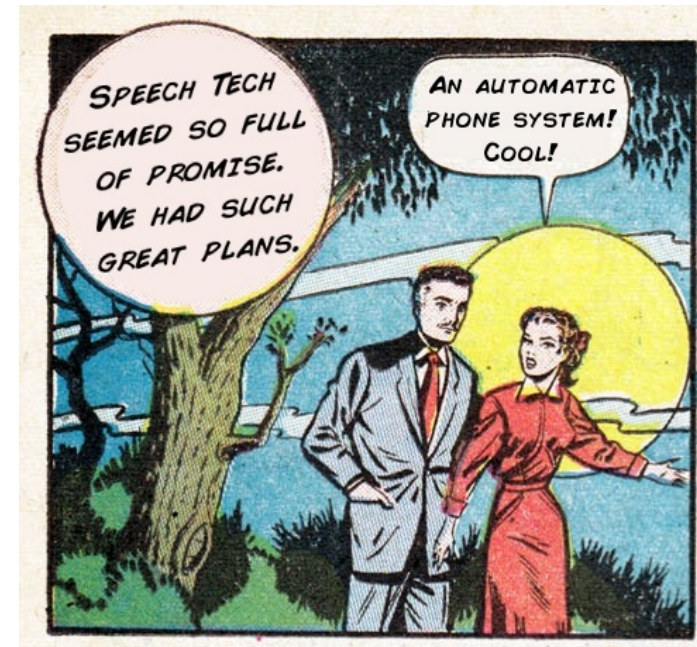# Dialog Lecture

Monday 29th September
Dr Matthew Aylett
matthewa@inf.ed.ac.uk

Once Upon a Time

THE GOOD TIMES...

Thanks to: digitalcomicmuseum.com

CASE STUDY: MYMYRADIO

- Ideas Behind Project

- Technology Behind Project

- Implementation

HAMMER LOOKING FOR A NAIL

Speech Synthesis

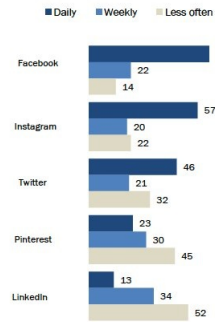- Dynamic Content

- Eyes-free

IDEAS

click, click, click, me, me, me, engage! engage! engage!
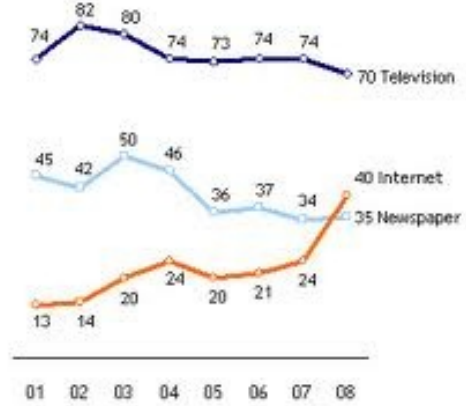
IDEAS

Frequency of social media site use

% of social media site users who use a particular site with the following frequencies (% is reported among each specific site's user groups, e.g., 63% of Facebook users use the site on a daily basis)
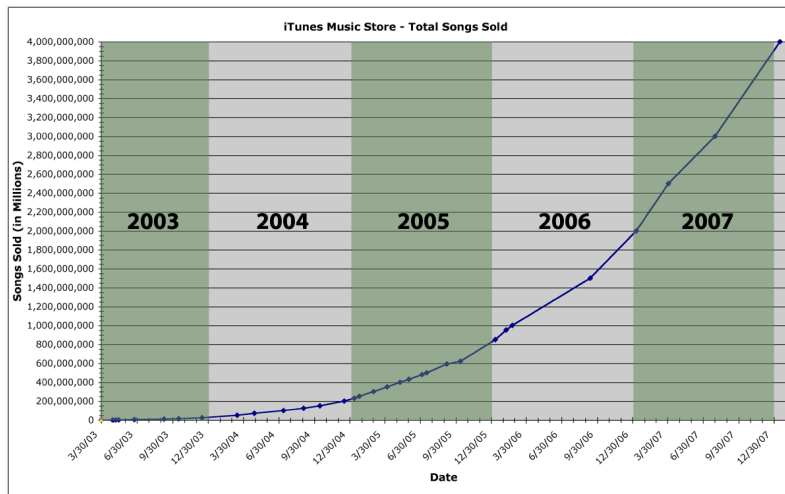
■ Daily ■ Weekly ▪ Less often

Facebook
- 63
- 22
- 14

Instagram
- 57
- 20
- 22

Twitter
- 46
- 21
- 32

Pinterest
- 23
- 30
- 45

LinkedIn
- 13
- 34
- 52

Pew Research Center's Internet Project August Tracking Survey, August 07 –September 16, 2013. Interviews were conducted in English and Spanish and on landline and cell phones.

PEW RESEARCH CENTER

MARKET

Where Do You Get Most of Your National and International News?

Television: 74, 82, 80, 74, 73, 74, 74, 70 Television
Internet: 45, 42, 50, 46, 36, 37, 34, 40 Internet / 35 Newspaper
Newspaper: 13, 14, 20, 24, 20, 21, 24

01 02 03 04 05 06 07 08

MARKET

iTunes Music Store - Total Songs Sold

Songs Sold (in Millions) vs *Date*

2003 2004 2005 2006 2007

OPPORTUNITY

	MASS	PERSONALISED
PUSH DOWN		
PULL DOWN		

NOOZ

TTS TECHNOLOGY
(Text to Speech)

Evil Claire

Nice Claire

How? Character!

- **Young natural sounding voices**
- Regional accents
- Expressiveness
- Semi-manual synthesis
- Voice cloning

How? Character!

- Young natural sounding voices
- **Regional accents**
- Expressiveness
- Semi-manual synthesis
- Voice cloning

How? Character!

- Young natural sounding voices
- Regional accents
- **Expressiveness (3)**
- Semi-manual synthesis
- Voice cloning

How? Character!

- Young natural sounding voices
- Regional accents
- Expressiveness
- **Semi-manual synthesis**
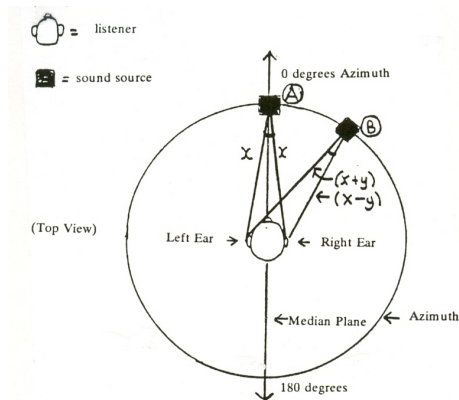- Voice cloning

How? Character!

- Young natural sounding voices
- Regional accents
- Expressiveness
- Semi-manual synthesis
- **Voice cloning**

3D AUDIO: BINAURIAL

STEREO

- Time Delay

- Amplitude

3D AUDIO

- Head Related Transfer Functions HRTFs

- Effect of Head Ears etc.
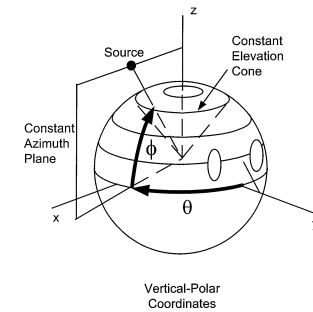
FIG. 1

EXAMPLE 3D AUDIO

Search 3D audio barbershop:

Use Headphones:

https://www.youtube.com/watch?v=IUDTlvagjJA

SOUND DESIGN

IMPLEMENTATION

Overview:

• iPhone

• Server/Client Architecture (MP3s)

• Configuration

• Music Player

iPhone

Not and engineering decision:

• Users Pay for Apps

• More Media Visibility

• iOS TTS only as SIRI

SERVER ARCHITECTURE

Speech Synthesis

Compute Cloud

Environmental Audio Processing (3D Audio etc).

Audio Cache

Mobile Client Server

Public Web Server (OpenNooz API/ Online presence)

Web Browser

iPhone / Google phone / Sensia, Internet Radio

Local embedded phone/radio API

3D Audio Library

NoozFeed Streamer Engine

DSP Library

User's MP3 library / live radio.

CONFIGURATION

●●○○ BELL 🌐   4:21 PM   ⚡ 22% 🔋

News   +

NEWS

TECHNOLOGY

SPORT

GAMING

BUSINESS

Now Playing   My News   Feed   Settings

●●○○ BELL 🌐   4:21 PM   ⚡ 22% 🔋

‹ Back   Gaming   Edit
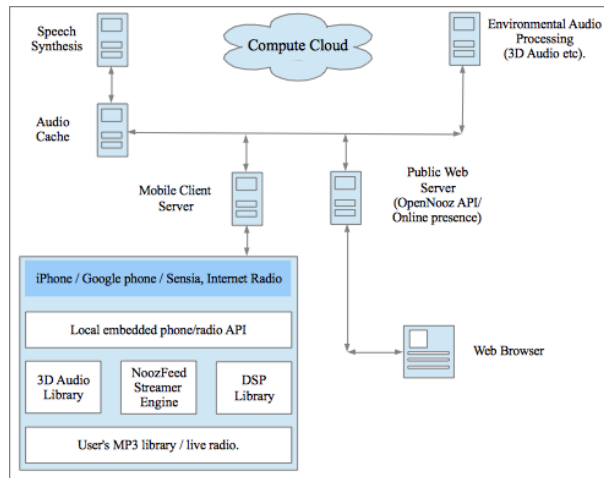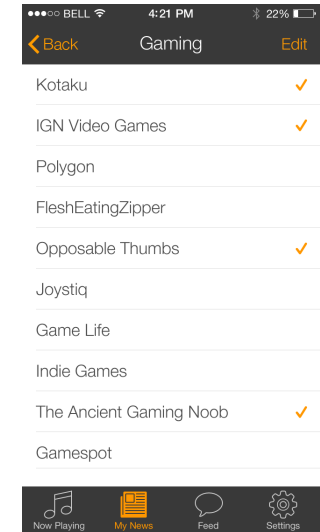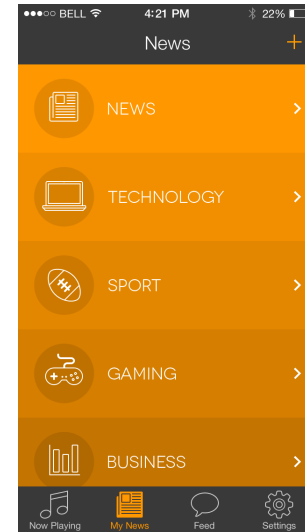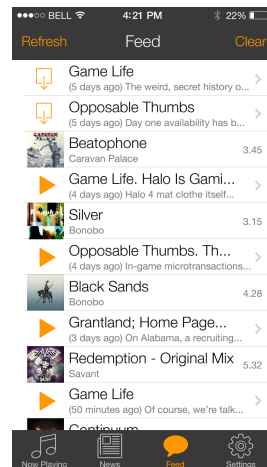
Kotaku   ✓

IGN Video Games   ✓

Polygon

FleshEatingZipper

Opposable Thumbs   ✓

Joystiq

Game Life

Indie Games

The Ancient Gaming Noob   ✓

Gamespot

Now Playing   My News   Feed   Settings

MUSIC + FEED PLAYER

●●○○ BELL 🌐   4:21 PM   ⚡ 22% 🔋

‹ Music   Playing   ≡

CARAVAN PALACE

1:01 ——————— -3:49

Beatophone
Caravan Palace - Panic

Now Playing   My News   Feed   Settings

●●○○ BELL 🌐   4:21 PM   ⚡ 22% 🔋

‹ Music   Playing   ≡

Facebook founder's 'wall' hacked

A Palestinian programmer posted a warning about a security flaw on a private Facebook page...

Open

1:01 ——————— -3:49

Facebook founder's 'wall hacked
3 days ago

Now Playing   My News   Feed   Settings

●●○○ BELL 🌐   4:21 PM   ⚡ 22% 🔋

Refresh   Feed   Clear

Game Life
(5 days ago) The weird, secret history o...

Opposable Thumbs
(5 days ago) Day one availability has b...

Beatophone   3.45
Caravan Palace

Game Life. Halo Is Gami...
(4 days ago) Halo 4 mat clothe itself...

Silver   3.15
Bonobo

Opposable Thumbs. Th...
(4 days ago) In-game microtransactions...

Black Sands   4.28
Bonobo

Grantland; Home Page...
(3 days ago) On Alabama, a recruiting...

Redemption - Original Mix   5.32
Savant

Game Life
(50 minutes ago) Of course, we're talk...

Continuum

Now Playing   News   Feed   Settings

CereProc

What does it sound like?

NoozFeed Example

SFX: Typewriter

News: The Royal Navy's newest and largest attack submarine HMS Astute has run aground off the Isle of Skye.

SFX: Whoosh

Facebook. John Munro: "Sometimes you look in a field and you see a cow, and you think it's a better cow than the one you've got in your own field. It's probably the same cow and it's not as good as your own cow." - Green grass greener was what you were looking for i think but thanks for making me laugh a lot.

SFX: Sonar

Twitter. J S Carroll, "Put a chair in the middle of a room. Sit in the chair. See who comes to visit."

Music: Chill

COMMERCIALISATION

SUMMARY

- HCI/Speech Relationship

- MyMyRadio:

  - Why?

  - What?

  - How?

- Example of Application

NEXT WEEK

- MyMyRadio Evaluation

- Responding to Feedback

- Future Directions

- Big Picture

www.mymyradio.com