

**Sound Effects:**  
*Digital Insights*

**CESI - Galway**

**March 1<sup>st</sup>, 2014**



## Caroline Carswell – About Me

- Social entrepreneur, founder-CEO of Irish Deaf Kids (IDK – <http://www.irishdeafkids.ie>)
- Profoundly deaf
- Mainstream educated
  - Preschool, primary school, secondary school and university
  - Worked in online publishing & digital marketing in Canada, US, UK and Ireland, before setting up IDK

## What is Irish Deaf Kids (IDK)?

- A **social enterprise** which works to support **inclusive education** for **children/young people with hearing issues** in Ireland while
  - **Empowering parents** to support and develop their deaf child's full potential
  - **Advocating for awareness** among key stakeholders (parents, educators, policy makers, employers) of **deafness, ability and technology tools** which empower and enable inclusion, participation and equality.

## Technology – Why its importance?

- Hearing had a role in the phone, internet, SMS text
  - Alexander Graham Bell (telephone)
  - Vinton Cerf, Google (internet)
  - Matti Makonen (Finland) – SMS Inventor

## Technology is revolutionising classroom supports

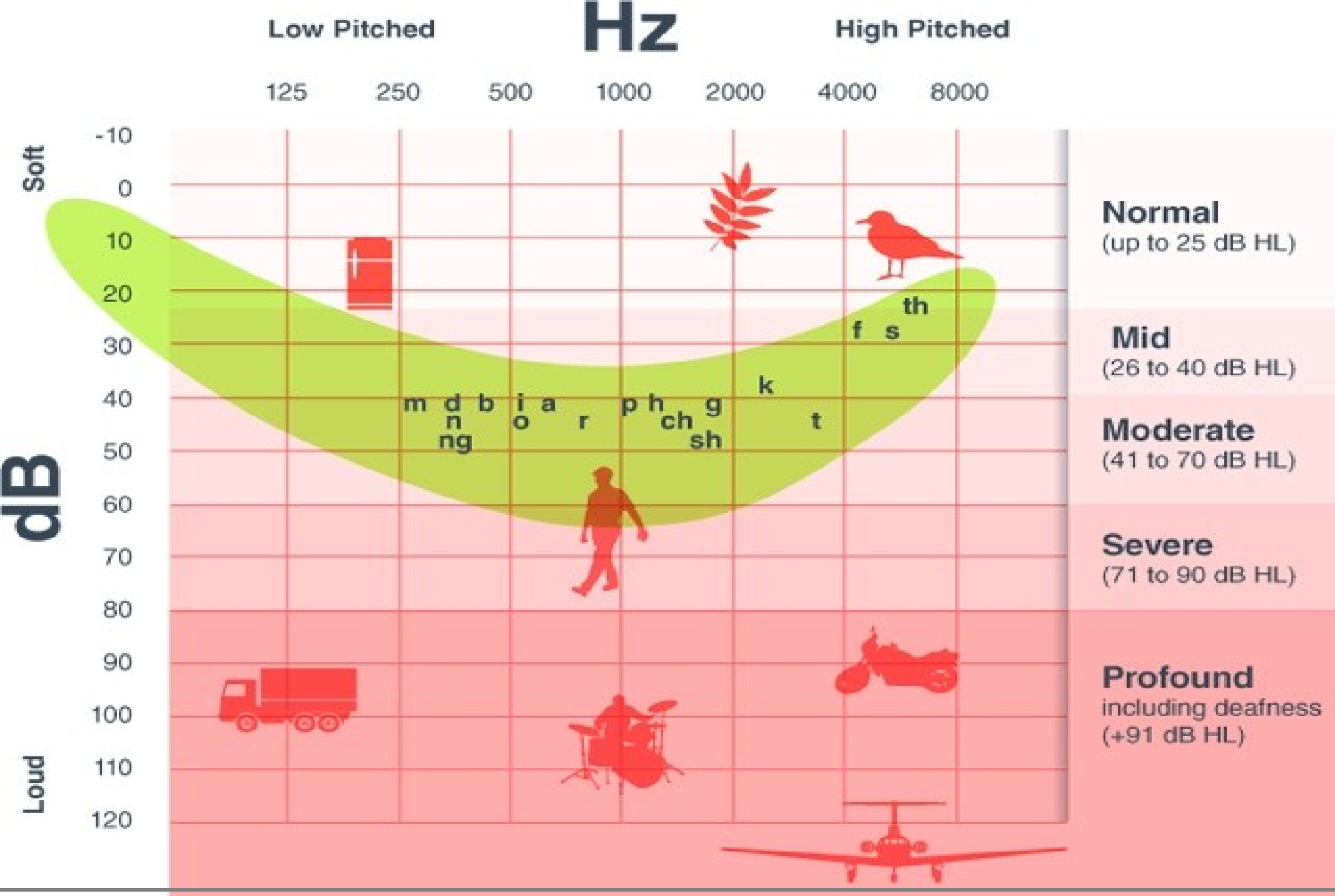
- Hearing aids (sophisticated, discreet)
- Soundfield systems – reducing ambient noise
- Digital Media
- Captioning

## **What Is A Soundfield System?**

A speech intelligibility system that provides clarity of voice and balances sound distribution in a classroom.

### **Competing Noise in Class:**

- 1) Teacher-pupil conversations (direct)
- 2) Class noise (ambient)
- 3) Environmental noise: fans, corridor and traffic sounds



## Why Classroom Acoustics Matter

***Lombard Effect:*** when people raise voices to compensate for room noise

### Good acoustics let everyone hear when:

- 1) Teacher walks around or faces away from class
- 2) Class starts activities, discussions or group-work
- 3) Realtime speech-to-text captionists are transcribing
- 4) Multimedia kit generates background noise



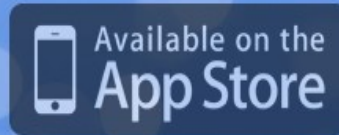
FREE+

# TOO NOISY

A Noise Level Meter built to help control the noise level of groups of children.

As the noise level in a classroom increases beyond an acceptable level the noise level meter dynamically indicates the level of noise, and the background graphics within the app change to reflect the noise levels.

Download the app for free by clicking below.



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“ Great Idea for the classroom! This app is ideal for the classroom. Students are able to self-monitor their own noise levels. It is a good





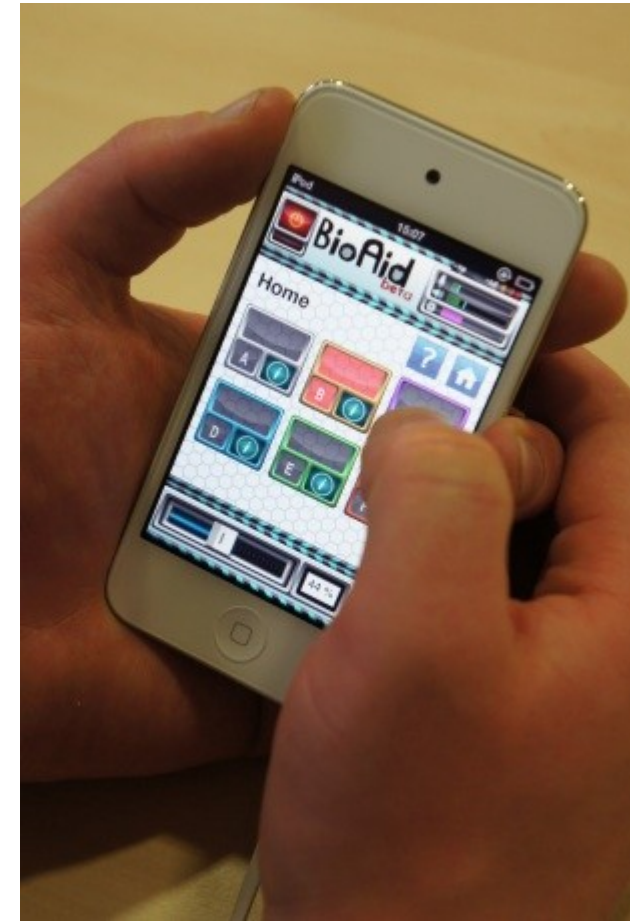
## BYOD Sound-Apps #1

### BioAid – On A Phone

[www.bioaid.org.uk](http://www.bioaid.org.uk)

### Selling Point

“ A mobile phone has all the elements to build a hearing aid (a microphone, a loudspeaker, plus the processing power). “



## BYOD Sound-Apps #2

### Blue Microphones

[www.bluemic.com](http://www.bluemic.com)

- Tiki (mimics human hearing)
- Blue Mikey (iOS devices)

On iOS, soundAMP is the 'amp' app, with a 30-second instant replay for conversation!



# **irishdeafkids**

## **IDK's Backers**



STATE STREET.



THE IRELAND FUNDS



Feidhmeannacht na Seirbhíse Sláinte  
Health Service Executive



**Edco**

The Educational Company of Ireland



TECHNOLOGY WITH PURPOSE



# Thank you: Engage with Us!



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