Challenges of Users with Disabilities,

Interacting and Controlling Robots.

By: Dr Peter O'Neill.

Download: https://tinyurl.com/CoUwDIaCR-Presentation-8th-Nov

Who are you ?

I am

N : Dr. Peter O'Neill

D : Senior Lecturer

A : Sheffield Hallam
    University

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My History

- 1996 left Sheffield Hallam University with :

   BSc (Hon) Software Engineering

- Head hunted by, Prof. Mark Hawley then of **BH**:

Barnsley District General Hospital NHS Trust

- Returned to SHU to undertake a PhD in :

   Enhancing Electronic Assistive Technology Prescription

My History

Sheffield Hallam University

- Left BH in 2003 to setup my own business

Madhouse Software Production Ltd.
Pride-N-Joy

www.Pride-N-Joy.co.uk

- Head hunted again by Prof. Mark Hawley of :

Barnsley Hospital NHS Foundation Trust & University of Sheffield for
Voice Input Voice Output Communication Aid (VIVOCA)
And now VIVOCA 2

Presently

Present Employment full-time with:

Sheffield Hallam University

and

- Part-time Employment with:

Pride-N-Joy Ltd

Challenges of Users with Disabilities,

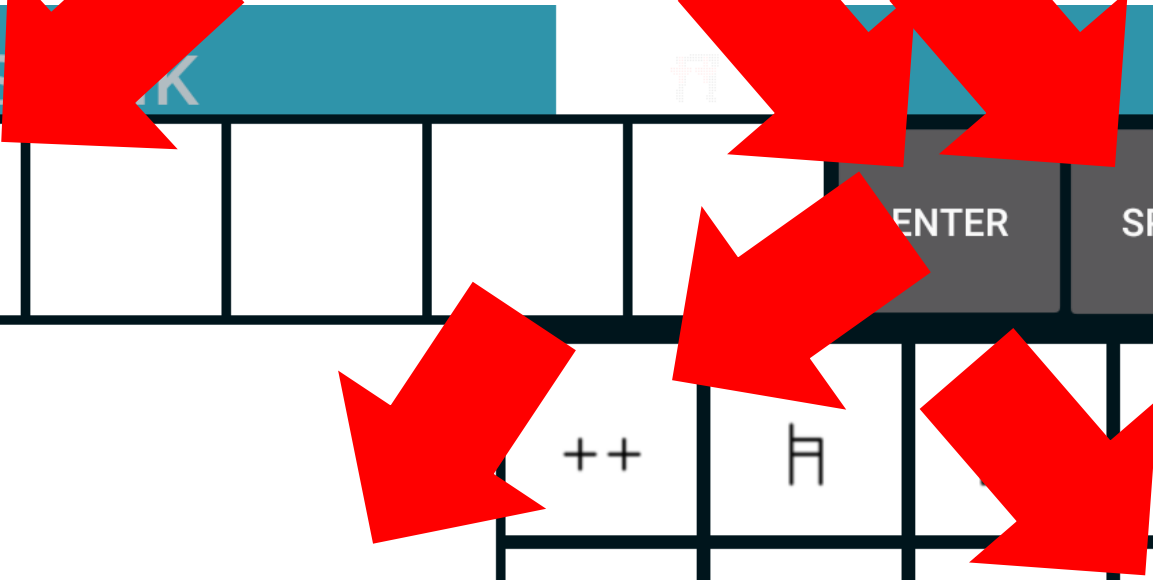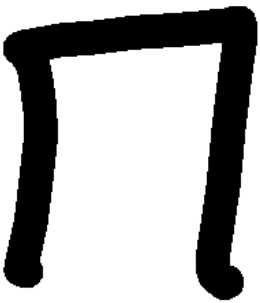# Interacting and Controlling Robots.

By: Dr Peter O'Neill.

Modules & Research Projects

- I lecture on:
  - Programming for Computing. (Level 4) **UG**
    - We discuss the concepts of Inclusion.
  - Mobile Application Development. (Level 6) **UG**
    - Are challenged, to include Inclusion.
  - Final Year Dissertations. (Level 6) **UG**
    - Project includes Inclusion, via ex-colleagues at Barnsley Hospital.
  - Group Project. (Level 7) **PG**
    - Project is Inclusion.
  - Doctorate. **PG**

Bliss Talk

Scrabble Word

Goopers (Unreleased)

Stephen Drummond-Smith   Casual

PEGI 7

Contains ads

This is an unreleased app. It may be unstable.

Add to wishlist   **Install**

A Tower Defence Game where you have to use high tec weaponry to defend your base against the local alien creatures; Goopers.
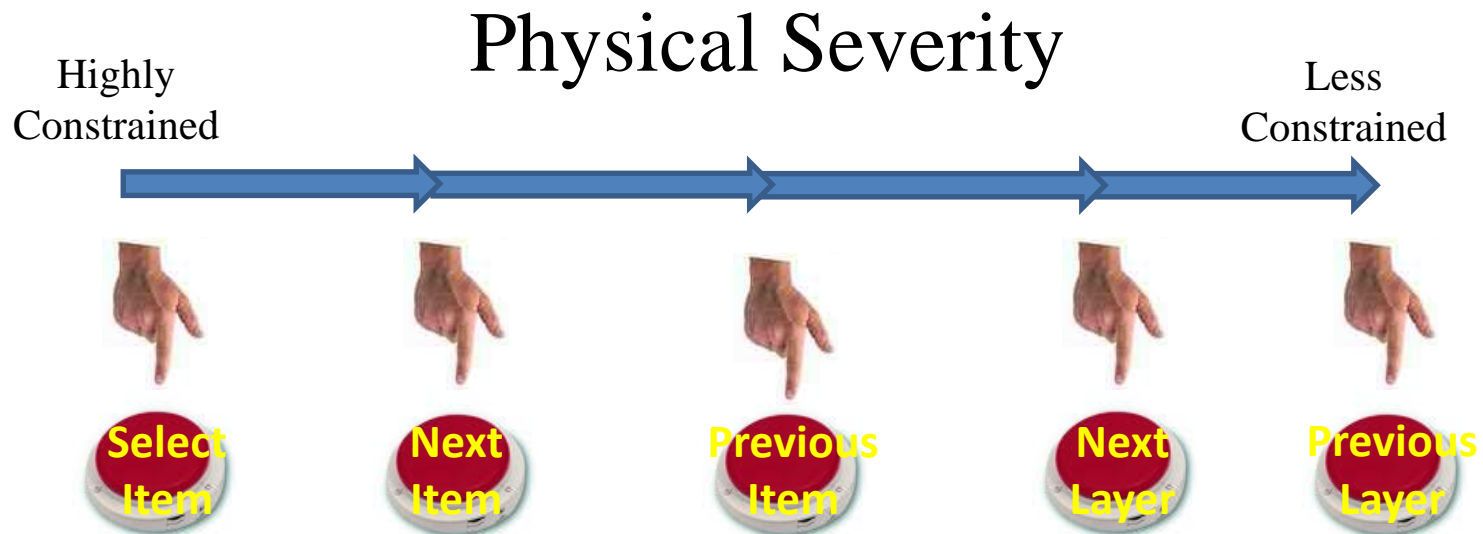
WHAT'S NEW

Added credits for Emily Birchall and Barnsley General Hospital
Re-enabled audio

ADDITIONAL INFORMATION

Updated	Installs	Requires Android
5 April 2017	10 - 50	2.3 and up

Content Rating	Permissions	Report
PEGI 7	View details	Flag as inappropriate
Mild violence		
Learn more		

Offered By
Stephen Drummond-Smith
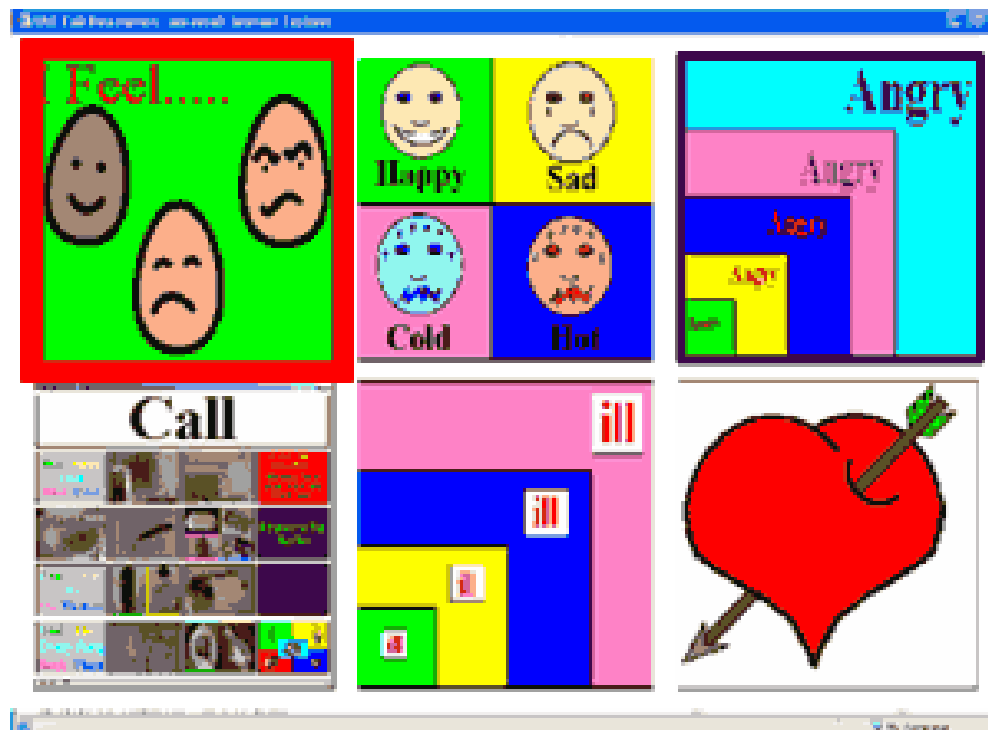
Developer
Email stephend.smith@hotmail.co.uk

Present Interaction

- Can be quite primitive, from:
  - **Voice Control.**
  - **Direct Selection.**
  - **Simple Switches. E.g.,**

Physical Severity

Highly Constrained

Less Constrained

Select Item

Next Item

Previous Item

Next Layer

Previous Layer

The Scanning Software

- Single Step

Robots and AT

Robots becoming AT

- For Non-Vocal Individuals:
  - AI.
  - **Interaction Method:** Unknown
    - Enquire e.g., "Do you want me to ......?"
    - Task understanding, shown once and repeat.
    - Etc..
- For Vocal Individuals:
  - **Interaction METHOD:** Voice Controlled.
  - AI.
    - Task understanding, explained through and repeat.
    - Learning.
    - Etc..

Robots

Professor Stephen Hawking has issued a chilling warning about the imminent rise of artificial intelligence. During a new interview, Professor Hawking warned that AI will soon reach a level where it will be a 'new form of life that will outperform humans. Read More [1]

Protocols

- I believe we need to Investigate and Develop two areas:

  1. Protocols like a Doctors Oath.
     - Construct a set of protocols.
     - Have a Governing Body that will ensure these protocols are being adhered too.
     - Etc...

  2. Develop differing methods of interaction.
     - Ensuring everyone in society can benefit.
     - Etc....

Thank You!