Early Onset Parkinson's Disease Assistive Technology Webinar

Siobhan Long – slong@enableireland.ie
Juliann Bergin – jbergin@enableireland.ie

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Agenda

- Welcome
- What is Assistive Technology
- Typing and mouse usage
- Speech Recognition
- Handwriting supports
- Voice supports
- Reminders supports
- Questions

What does AT mean to AT users?



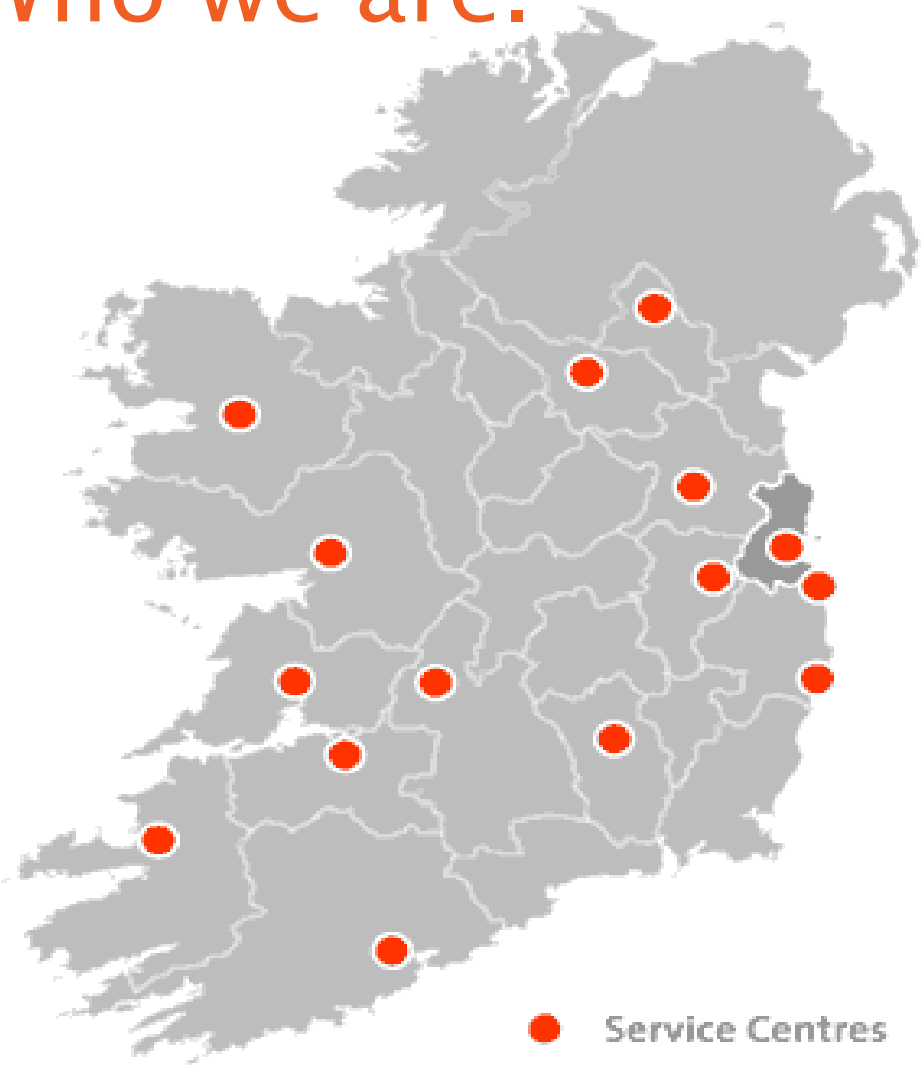
Enable Ireland's Mission

To enable those who use our services to achieve maximum independence, choice and inclusion in their communities.



Enable Ireland: Who we are.

- Providing services to over 5,000 people with multiple disabilities
- 25+ local centres
- Technology central to the services we provide: IT and ***Assistive*** Technology



Social Model of Disability

- Barriers created by society
- Society's responsibility is to remove those barriers/promote access
- Priority: Social inclusion
- Service Users....to Service Owners





Access All Areas

Assistive Technology is a tool to support individuals to achieve their potential. The ultimate goal is Access All Areas

What do we mean when we talk about Assistive Technology?



Definition of Assistive Technology

Any item or product whether acquired commercially, modified or customised that enhances the independence of individuals with disabilities.

(World Health Organisation and World Bank, 2011)



Definition of Assistive Technology – World Health Organization

Assistive technology - the application of organized knowledge and skills related to assistive products, including systems and services. Assistive products are any external product (including devices, equipment, instruments or software)…the primary purpose of which is to maintain or improve an individual's functioning and independence, and thereby promote their well-being.

- WHO 2020





Who can benefit from Assistive Technology?

- Anyone with a disability:
  preschool – adulthood
- Students with dyslexia
- Early school leavers
- Ageing population
- Employees
- **Prevent** acquisition of work related injury
- **Retain** staff who acquire injury
- Anyone!

Technology trends

AT evolved from being a dedicated hardware to being software installed on a mainstream PC. With the adoption of Mobile Devices and app stores we saw a trend to making task specific apps rather than suites of tools. Other mainstream trends like wearable tech and smarthomes have also helped to make AT more mainstream and accessible to all.



Computer Based AT



All about the Apps

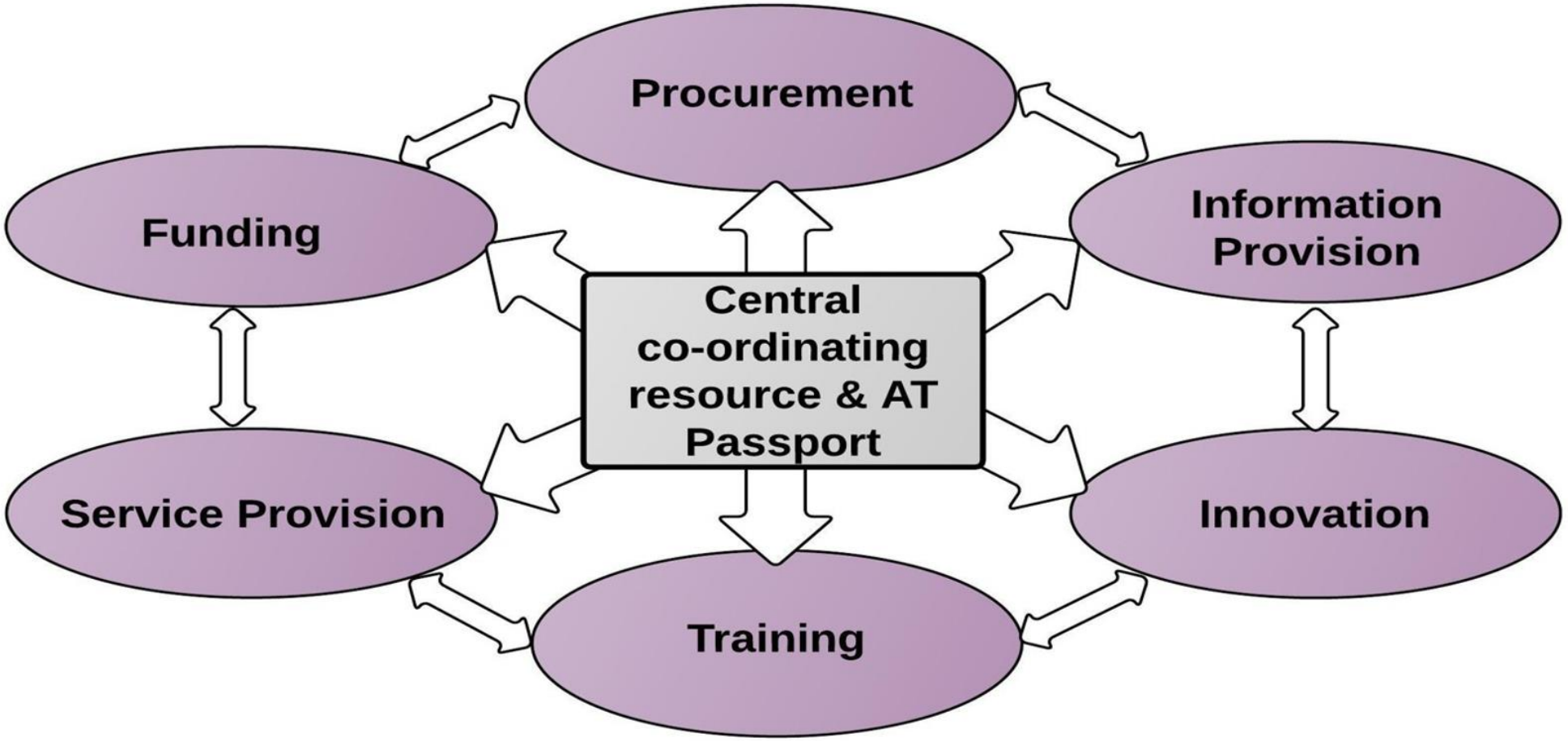


Wearable Tech



Smart Homes

Ecosystem of Support



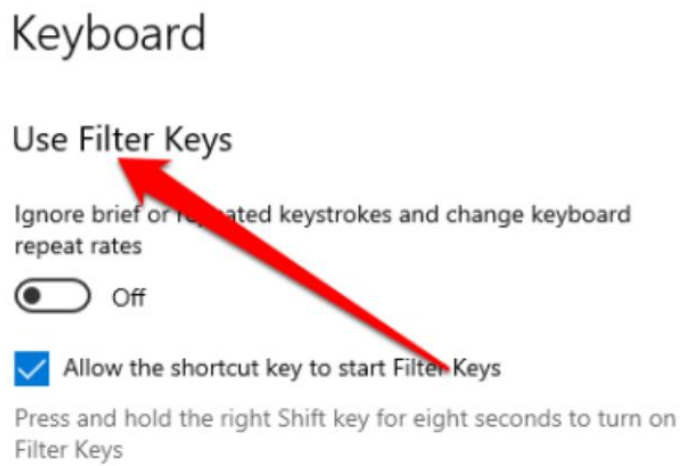
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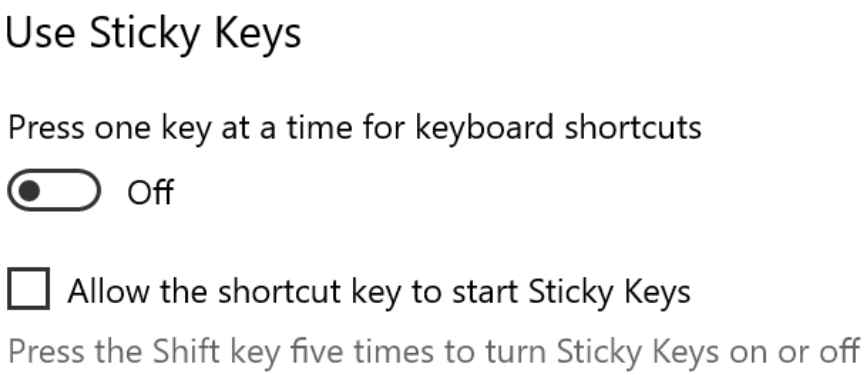
Using Digital Devices

Typing

- Filter/Slow keys
  - Ignore brief keystrokes
  - Slow down repeat rates



- Sticky Keys
  - Sequential rather than concurrent key presses for shortcuts, capitals etc.



Keyboard Shortcuts

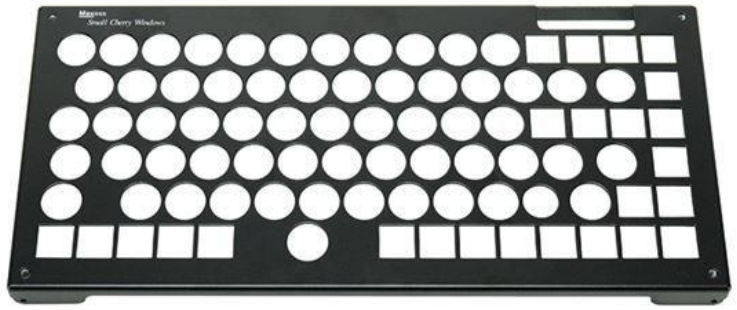
Use the keyboard when many use the Mouse

For menus – remember the underline rule
For dialogue boxes – TAB, SPACE, ENTER
For Buttons – ENTER, ESC, CURSORS
For Features – Look in Menus, Use HELP

For Windows:
http://windows.microsoft.com/en-ie/windows/keyboard-shortcuts
For Apple:
http://support.apple.com/kb/ht1343
For Android:
www.beginandroid.com/keyboard.shtml
For Linux
http://community.linuxmint.com/tutorial/view/45

Hardware Options

- Keyguards
  - Metal or plastic grid that sits over keys
  - Purchased with keyboard
  - Standard, compact or large

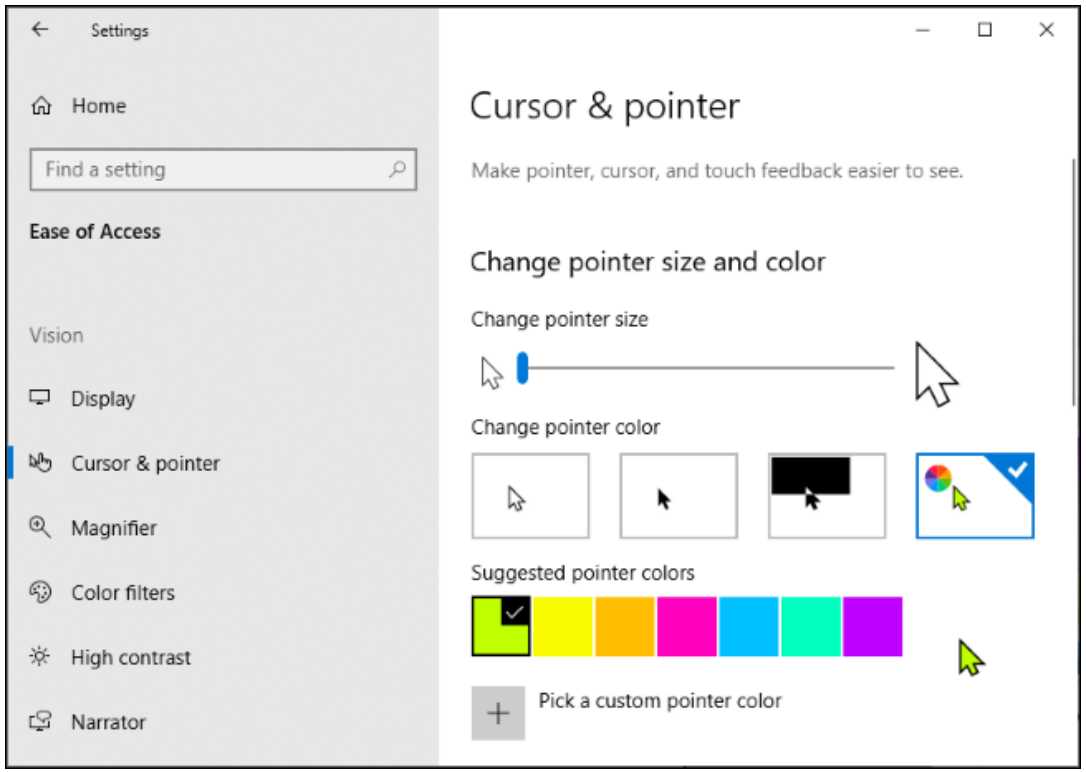


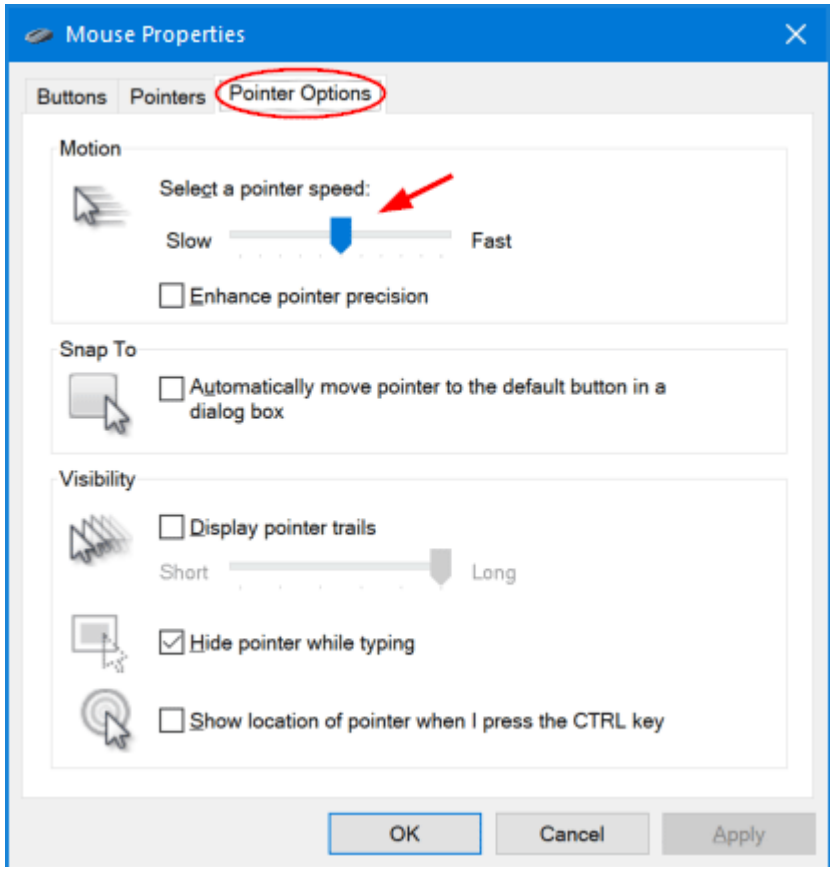
- Springboard keyboard
  - Raised border around keys
  - Backlit
  - Antimicrobial surface
  - Designed by a person with a tremor



Mouse Cursor Adjustments

- Increasing size of cursor
- Changing cursor speed & buttons





Alternative Types of Mice

- Rollerball mice









- Joystick

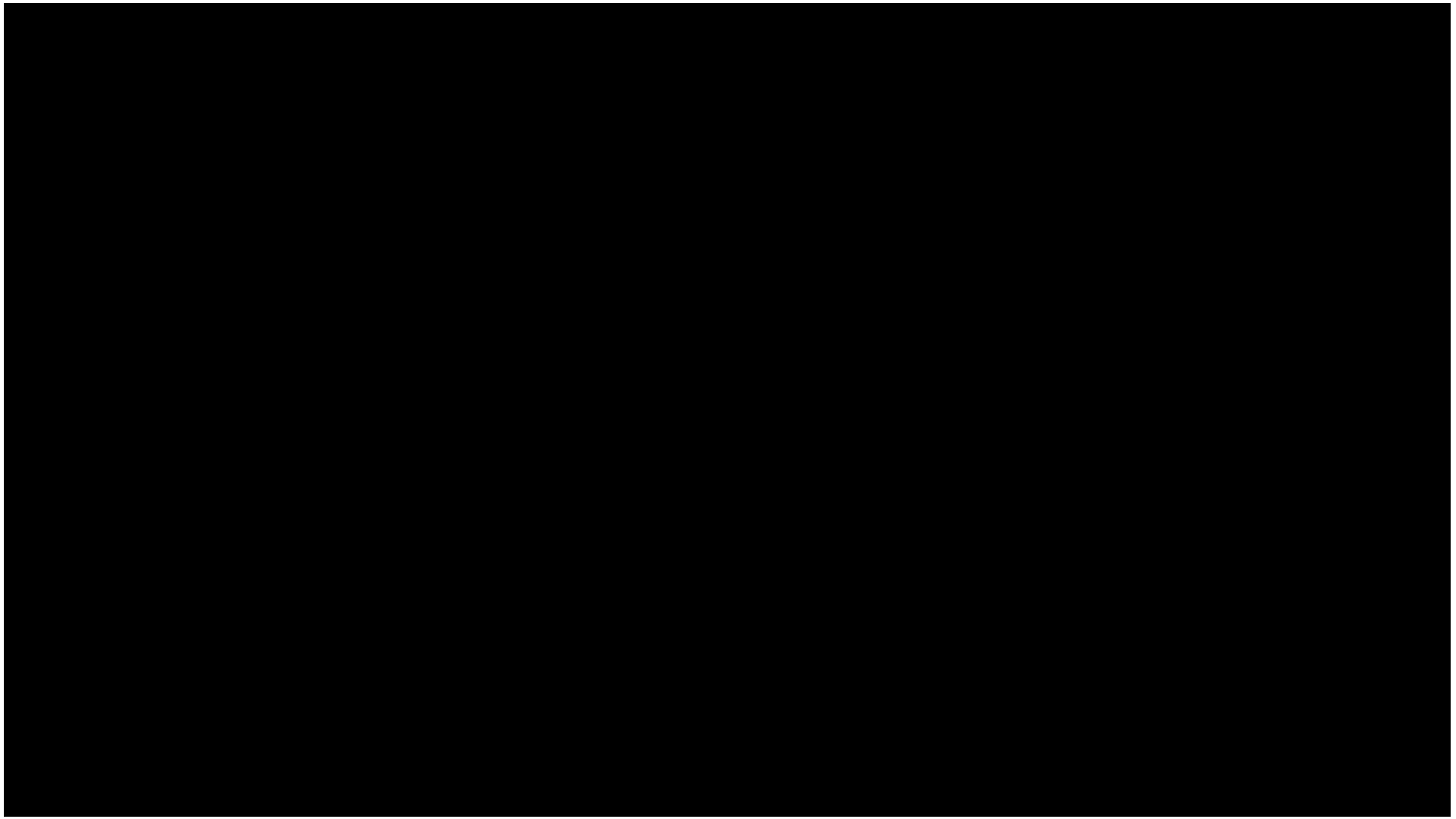




SteadyMouse Software

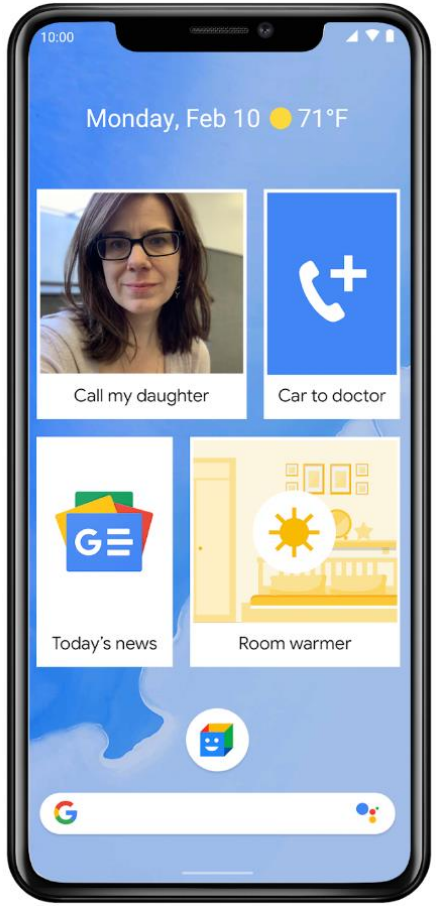


AMAneo BTI Mouse Adapter

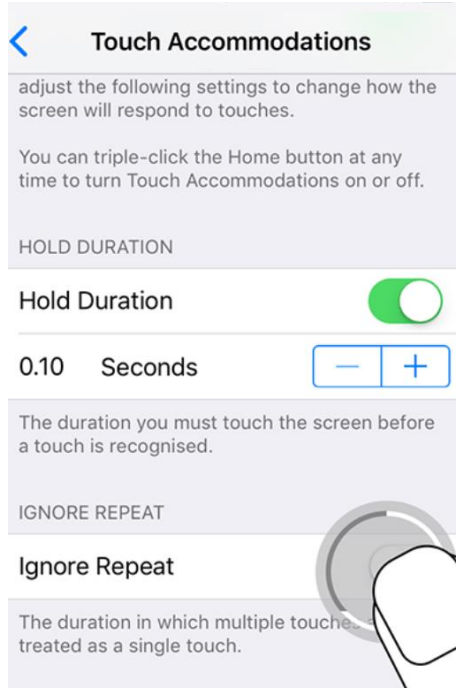


Touchscreens

- Android
  - Touch settings
  - Easy Mode – cleaner screen, larger icons, larger keyboard
  - Install “Big Launchers”
  - Action Blocks



- iOS
  - Easy mode - Slightly larger icons
  - Touch Accommodations
  - Larger keyboards

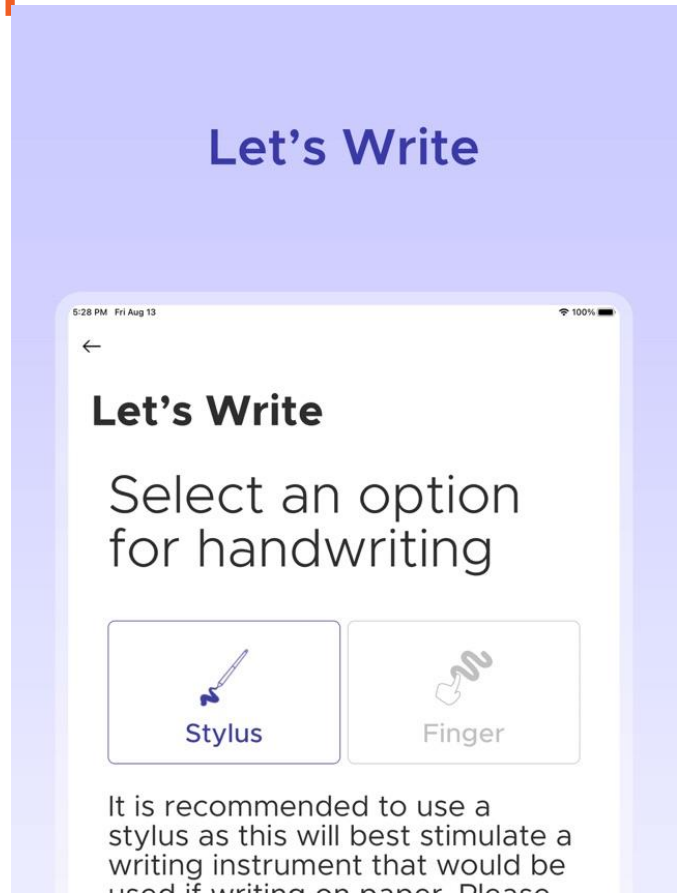




Handwriting

Handwriting Apps

- Prompting apps:
  - WriteMACRO
- Handwriting to text apps:
  - Seeing AI
  - OneNote/Evernote
  - Pen to Print App



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Speech Recognition

Speech Recognition – What is it?

- Differences between Dictation vs. Control
- Capture speech using a microphone
- Use algorithms to analyse sounds
- Context and machine learning to determine words
- Transcribe outcome on screen

Types of Voice Recognition

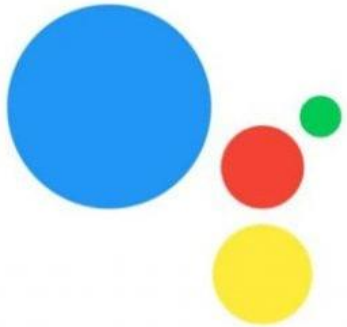
- **Voice/virtual assistants on Phones and Tablets**
  - Siri (callscotland.org.uk)
  - Android (callscotland.org.uk)
- Voice assistants – stand alone:
  - Alexa
  - Google Home/Nest
  - Apple HomePod
- Apps
  - Live Transcribe
  - OtterAI



"Hey Alexa"



"Hey Siri"



"Hey Google"

Computer-Based Speech Recognition

- Computer based
  - Google Voice Typing
  - Dictate in office 365
  - Dragon Naturally Speaking
    - Dragon Anywhere



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Voice Support

Voice - Amplification

- Voice amplifier
  - Standalone
  - Purpose made
  - Different price points



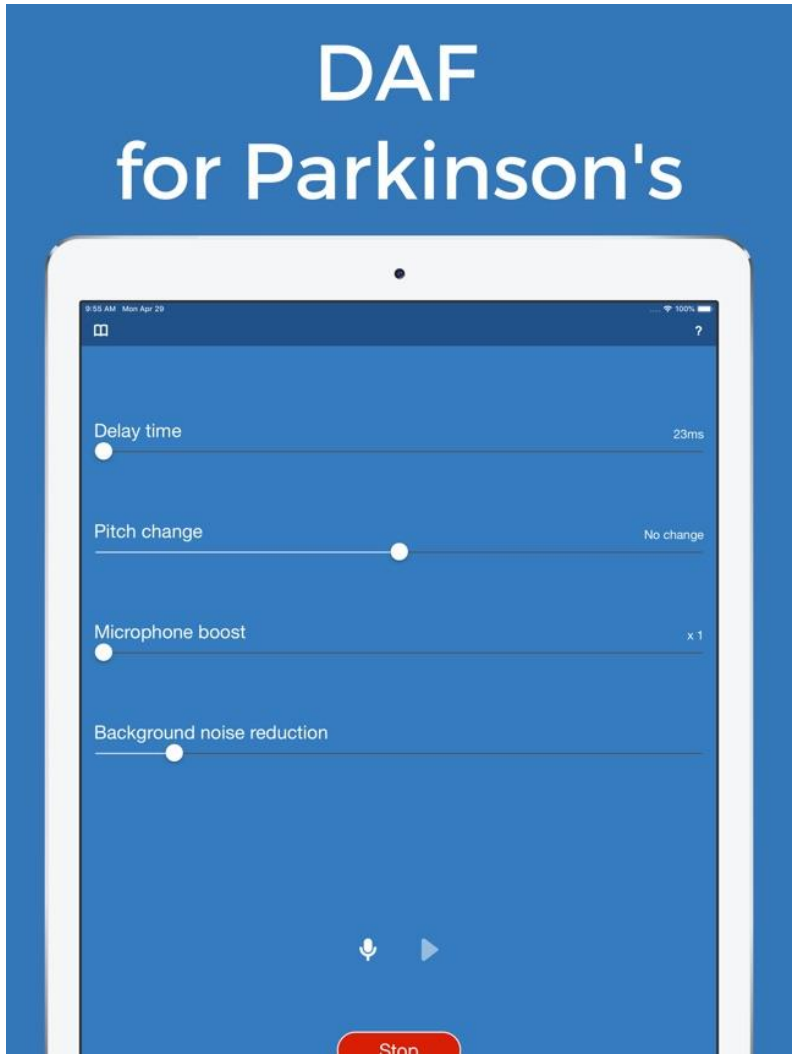
- Amplification apps
  - Loud and Clear (iOS and Android) – exercises to work on regulating volume

LOUD+CLEAR

  - Multiple amplifier apps, that use your phone as a microphone with a Bluetooth speaker e.g.
    - Megaphone: Voice Amplifier
    - Microphone Amplifier

Voice Rate and Monitoring

- Conversation Paceboard iOS
- Speech Pacesetter iOS
- Speaker Coach in MS Teams
- Teleatherapy
- DAF Pro iOS, Android



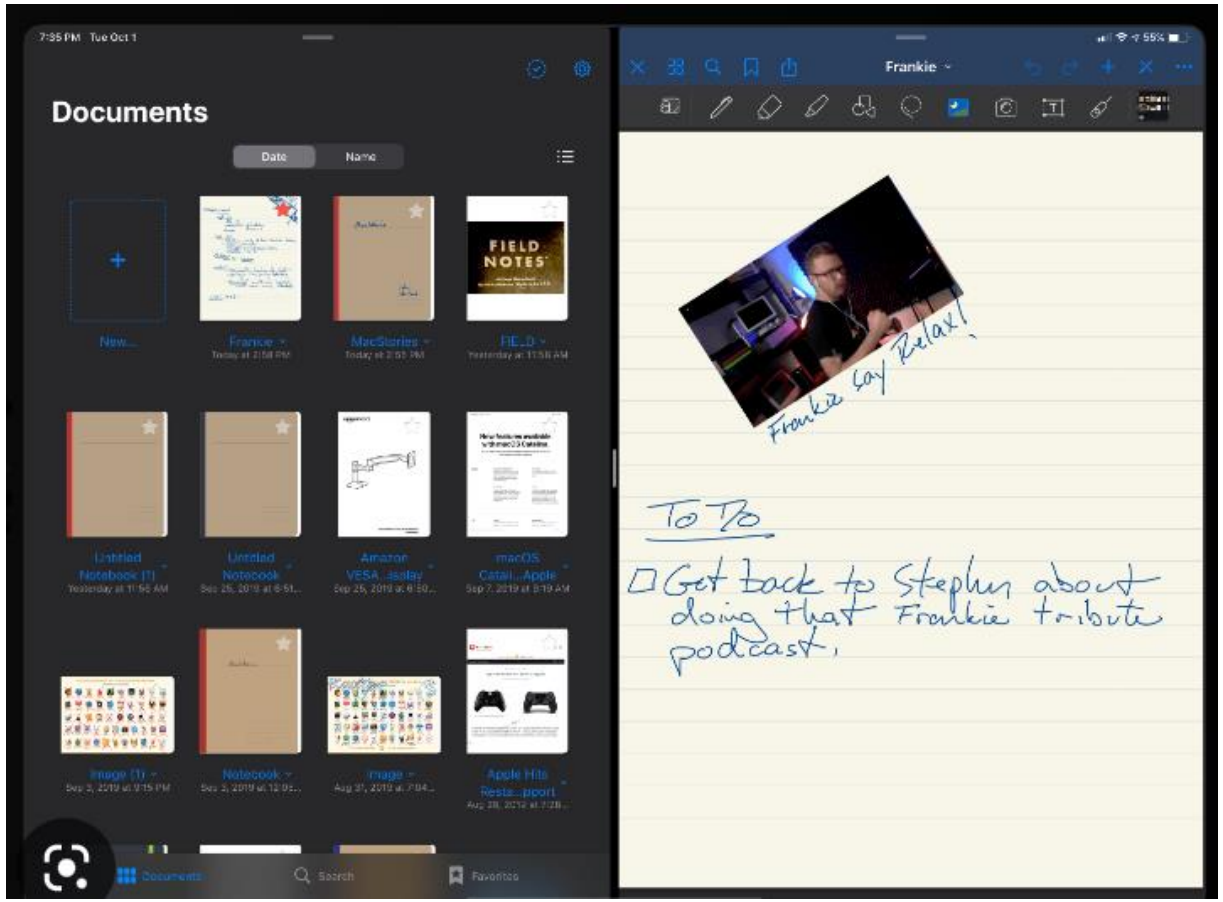
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Reminders

Reminders: Options

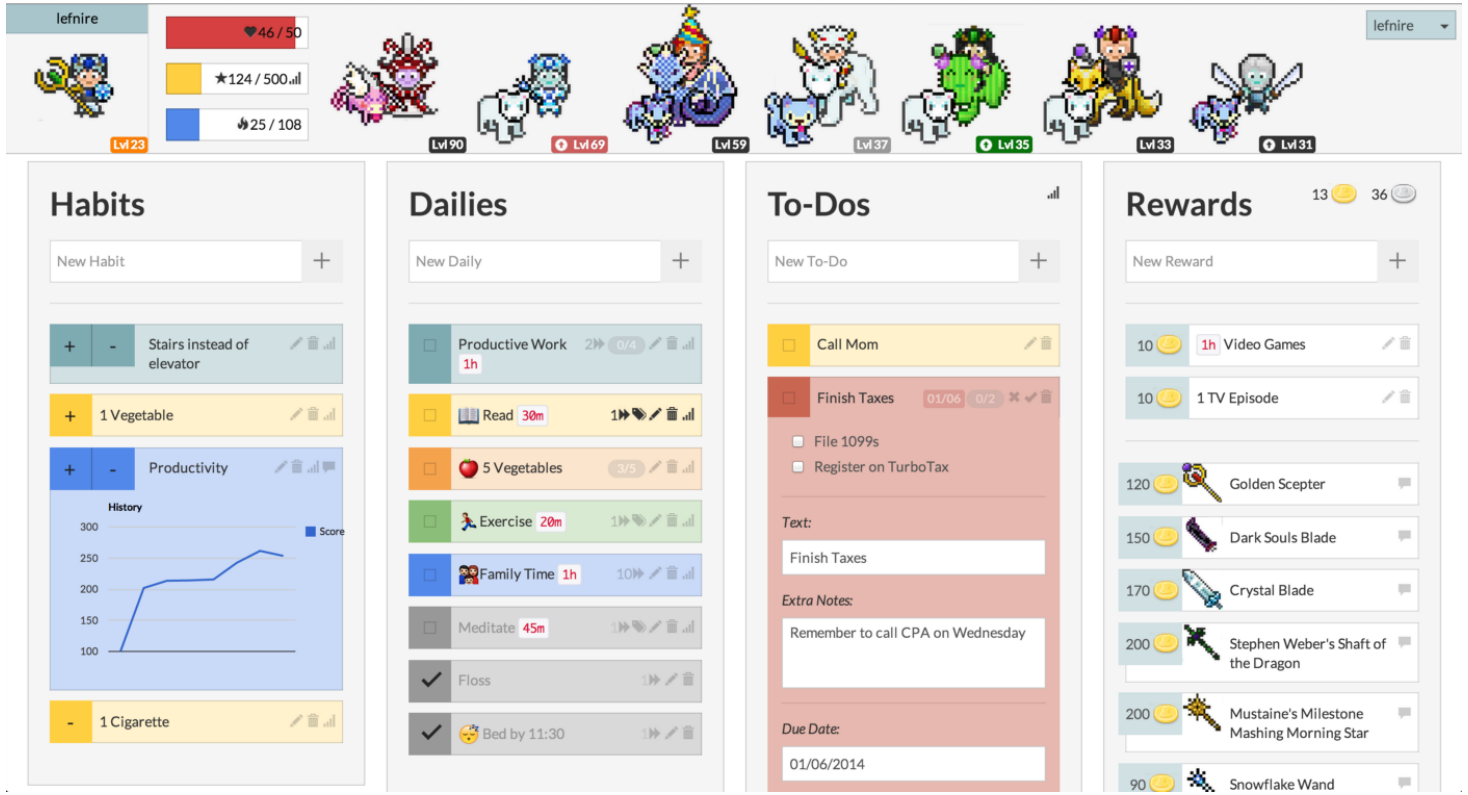
- Use phone alarms/calendars
  - Can insert using Voice Assistant
  - Name alarms
- Use inbuilt note apps – Notes, Google Keep
- Download apps i.e. GoodNotes



Checklists/Notes

- Its Done
- Habitica
- Trello
- ToDoist
- Any.Do
- Routinery

- OneNote/EverNote



Organisation

- To do lists i.e. ToDoIst
- Use you calendar, tasks list – Outlook, Google
- Use your phone – Named alarms
- Organisational apps and websites, i.e. Trello

For further connection:

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Any Questions?

