

The future of AAC

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What is AAC?

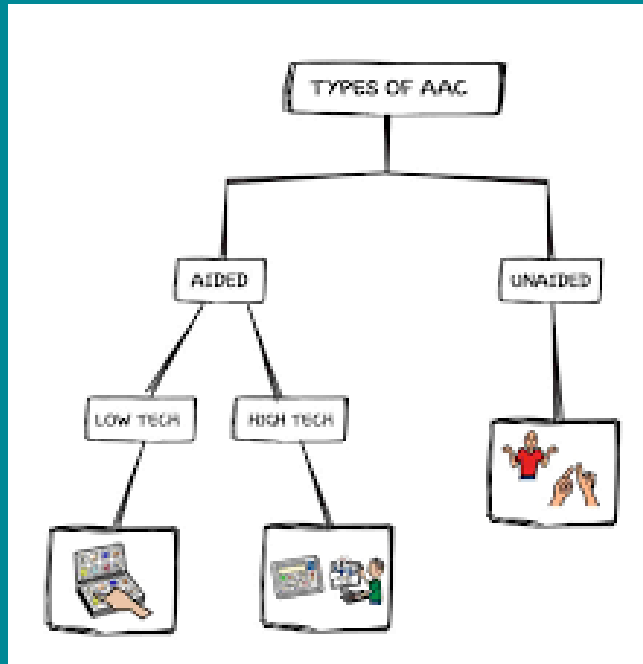
- AAC refers to augmentative and alternative communication
- AAC includes a range of strategies and tools to help people who have difficulty with speech (Communication Matters, UK)

Inclusion

- Communication & inclusion & participation
- Family
- Community
- Education
- Employment

What is AAC?

- Can include unaided systems and aided systems

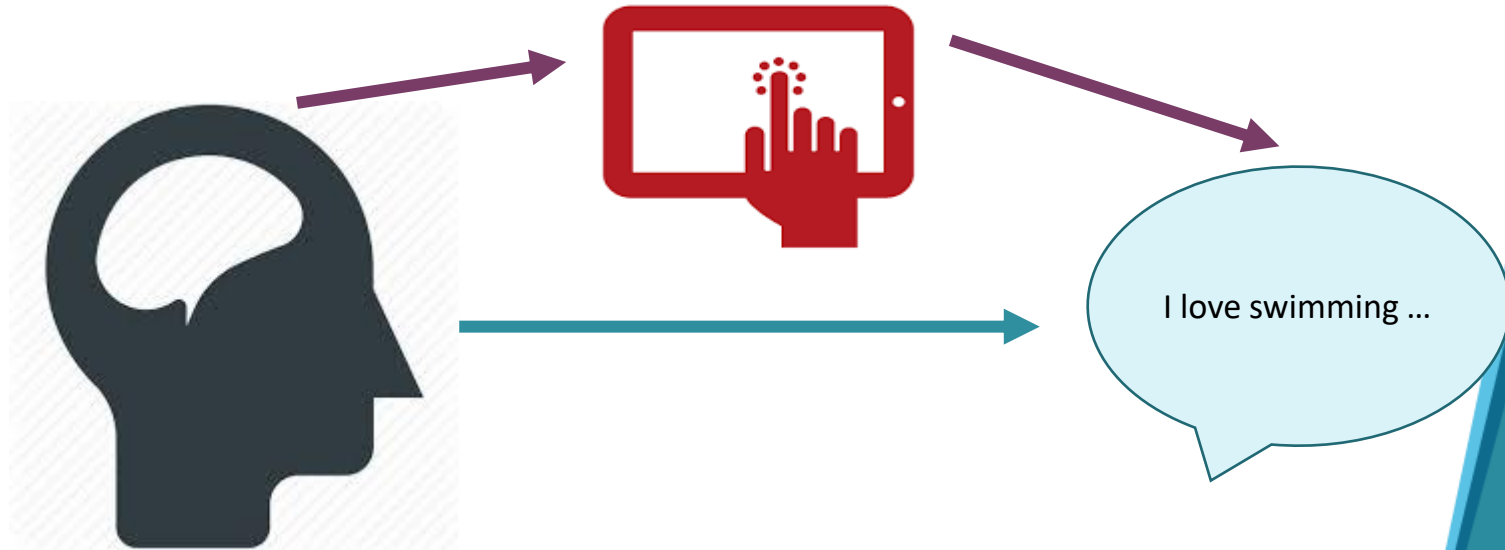


A focus on aided AAC

- Includes real objects, pictures, text, computer based systems
- High tech will have voice output
- External to the body
- Must be accessed somehow



The process of aided AAC use



Rates of speech

- Typical: 125-185
- AAC user: 8-10, with prediction: 12-18 words per minute
- Access methods: switch users slower
- **No surprise that people who use AAC want to have thoughts that immediately translate to speech**

The future... Artificial intelligence

So how do you cut out the middle man?? Is it possible?

AAC devices that know what we think and translate directly into speech

- Brain computer interfaces
- Synthetic voices based on the structure of the vocal tract
- Speech recognition of dysarthric speech

Brain interfaces

- Use of brain computer interfaces to control AAC devices: BrainApp UOM
- 5 letters a minute but for some who have no volitional movement it might be the only possibility
- Must learn to control new computer interface + brain activity
- Still much work needs to be done



Mind reading AI

- AlterEgo: translates inner thoughts to a voice using a headset which has electrodes attached to the skin
- Also interprets what you hear



Apps that translate dysarthric speech

- Making use of existing speech through speech recognition technology
- VocaTempo



Future of AAC

- Some thoughts....
- Seduction.
- Research into how we implement.



THANK YOU

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