No further on after 30 years – still can't speak fast enough



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1

Technology

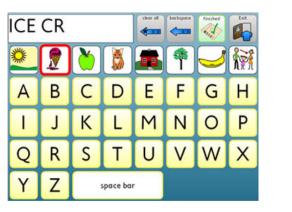




- New AAC Software
- Improved but still too slow
- Mobile Phones for communication
- Communication Rate still less than 10/min









VOIS 135



- Started with AAC Hardware in 1986
- Phonic Ear Voice 135
- Enabled me to speak on the phone
- Sounds, words and phrases

Laptop



- First Laptop in 1990
- Software for words or sentences
- Had Speech Output
- Helped me with reading and writing

Predictive text



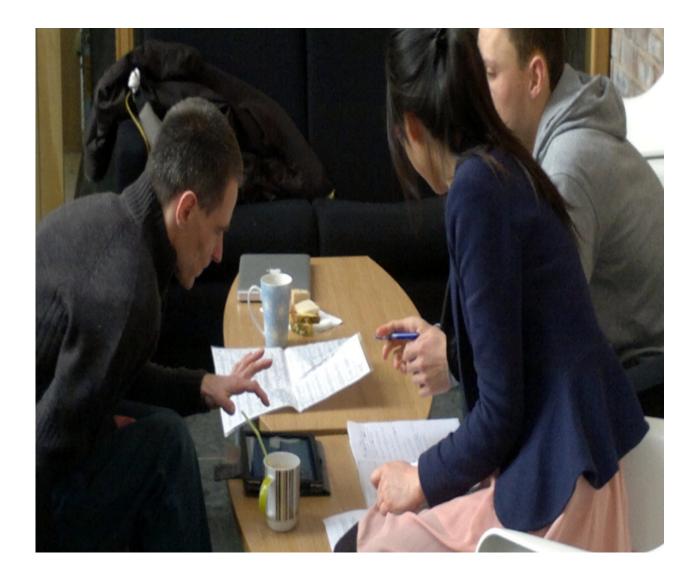
- PAL Software
- Predictive Text
- Faster Communication than before

Dream



- Hand held computers
- Enkidu & Sayit-Sam
- Not enough Dexterity

iPad and Wordboard



- iPad, Size and Functionality
- A3 Word Card, More Interactive
- iPad in the car and on the phone
- Wordcard better for face to face communication

Paper

| Intensity | Bliss symbol | metaphor | similar sound | No | | belongs | and also | with | opposite meaning | part of | where | combine | |
|----------------|-------------------|-----------------|----------------|-----------------|-----------------|------------------|-----------------------|--------------|------------------|--------------------|------------|----------------|---------------|
| A | В | С | D | E | F | G | н | I | J | К | L | М | |
| hello | if | I me my | you | girlfriend | story | news | to walk go | to ask | a, an | opposite | different | number | |
| goodbye | or | he him | she her | past | present | future | to come | in out | the | good | new | lonely | |
| please | at | we us | they them | did done | to do | will do | to work | to see | this | young | happy | sad | |
| thanks | but | person | if | was were | to be is are | will be | to read | to hear | that | quick | funny | upset | |
| you're welcome | because | ,am | woman | had | to have | will have | to play | to say tell | ali | difficult | attractive | angry | |
| sorry | maybe | husband | wife | be able can | to make | not | to fight | totouch | each | pretend | excited | mean cruel | |
| purpose | nonsense | father | mother | to like | to want | to sleep | to swim | about of | by of | special | lucky | afraid | |
| answer | cousin | brother | sister | to kiss | to let allow | to push | to hide | towards to | from | correct | proud | sick | |
| question | relative | boy | girl | to love | to feel | to wash bathe | to stand | before front | after behind | interesting | safe | alone | |
| who | baby | grandfather | grandmother | tolaugh | to need | to dress | to sit | in inside | out outside | big | little | broken | |
| what | child | uncle | aunt | to lease | to buy | to change | to kneel | for | on | long | heavy | dead | |
| why | teenager | friend | family | to cry | to give | to grow | to put | up | down | thick fat | soft | wet | |
| where | adult | teacher | therapist | to think | to get receive | to marry | to carry | here | there | for | open | hot | |
| | square | student | doctor | to know | to keep safe | to surprise | to end stop | forward | again | Full | dirty | loud | |
| when | circle | nurse | dentist | to learn | to catch | to cut | to help | under | much many | Strong | expensive | early | |
| which | triangle | police officer | worker | to guess | to find | to cook | to try | between | enough | More | wrong | late | |
| much many | rectangle | visitor | stranger | to forget | to choose | to glue or stick | to wish | around | too much | most | left | right | |
| Descr.Eval | [plural indicator | thing indicator | same equal | similar | | | yes | to measure | to count | subtract take away | to add | | |
| N | 0 | P | Q | R | S | Т | U | V | W | Х | Y | cheesed off | |
| colour | green | white | blue | orange | brown | yellow | purple | pink | black | red | Z | lousey | |
| arm | zero | one 1 | two 2 | three 3 | four 4 | five 5 | six 6 | seven 7 | eight 8 | nine 9 | ten 10 | crap | |
| ear | food | software | pen pencil | clothing | McKinnon Centre | table | house | disco | picture | full-stop | comma | fed up | |
| eye | drink | game | paper page | dress | wheelchair | chair | school | animal | God | day | moming | problem | |
| mouth | toiler | ball | book | trousers | car ToyotaRAV4 | bed | hospital | pet | sun | night | afternoon | disabled | |
| nose | medicine | thing | workbook | shirt blouse | bus | light | shop | bird | moon | yesterday | time | pathetic | |
| teeth | milk | tool | letter | coat sweater | taxi | television | shopping centre | fish | star | today | hour | miserable | |
| hand | bread | utensil | parcel | underwear | train | telephone | money | insect | weather | tomorrow | minute | worry | |
| leg | soup | handle, switch | blisssymbol | socks stockings | tricycle | electricity | show place/theatre | tree | rain | holiday | birthday | weird | |
| foot | meat | scissors | word | shoes | aeroplane | room | garage petrol | flower | cloud | week-end | Christmas | | |
| head | cheese | needle | band | pocket | boat ship | door | street | grass | snow | week | Sunday | DRINKS | non-alcoholic |
| hair | egg | container | Midi / CU base | accessory | lift | window | city | seed | ice | month | Monday | coke | beer |
| body | greens | brush | keyboard | towel | outing | floor | country state | hill | thunder | year | Tuesday | orange | lager |
| pain | fruit | machine | radio | metal | gathering | wall | garden | earth | sky | spring | Wednesday | tea | wine |
| name | dessert | computer | music | plastic | hobby | cupboard | countryside | air | wind | summer | Thursday | milk | Miller |
| protection | meal | noticeboard | Disk CD | glass | sport | stairs | park | lake | water liquid | autumn | Friday | Orange Breezer | |
| idea | treat | desk | tape recorder | cloth | gym | fumiture | place | fire | rubbish | winter | Saturday | | |

30 years

 on - still
 better
 with a
 sheet of
 paper

This is not what I wanted to say



- Individual
 Words
- No "train of thought"

Research: Floorgrabber

| In August nineteen ninety 2 I went to the | } Great Britain swimming team and then got on | We got late intoo Barcelowna . We went by bus to | The Olympic village was big and new | hello | fine |
|---|---|---|---|---|-----------------------|
| Olympics in Barcelowna. | the plane for Barcelowna. | the Olympic village | and new. | int 50 | ro goodbye |
| I met the Scottish swimming team in Glasgo. | | It was a long day. Barcelowna city was big and old but sadly there was no { | I had a good time in the olympic village. | I see good! | don't know bad! |
| We caught a plane to London and there we met the { | | } time to see round it. | The accomodation was very good. Six people to each little flat. | not hear more wait sorry Repeat | |
| Miami trip Olympics US tour research about me | trip village pools | Comp next | | my car music sport jokes question | 5 |



- Dr. Alm, Floorgrabber
- Follows the flow of a conversation.

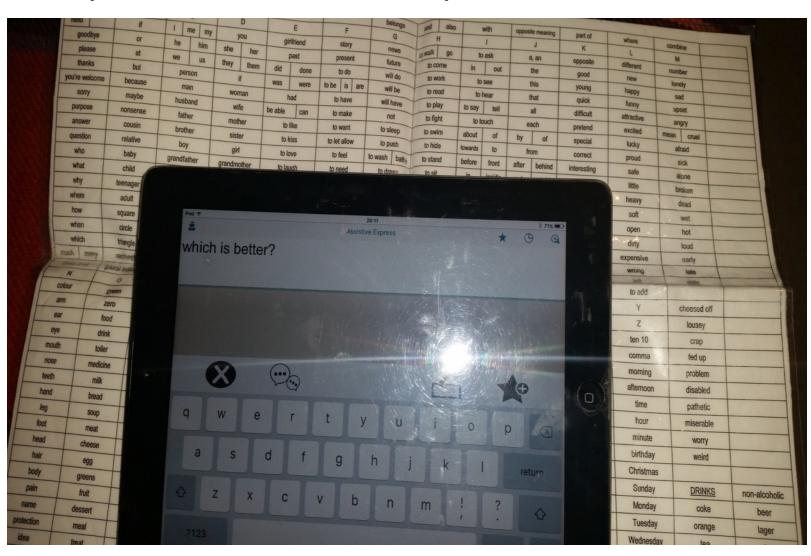
Research: Chatting





- Whole phrases
- Required phrases to be pre-stored
- Searching for phrases

Experiment: Computer v Wordcard



 Experiment using the wordcard and iPad





University of Dundee software testing







idfghjkl, weat xcvbnmtweeting

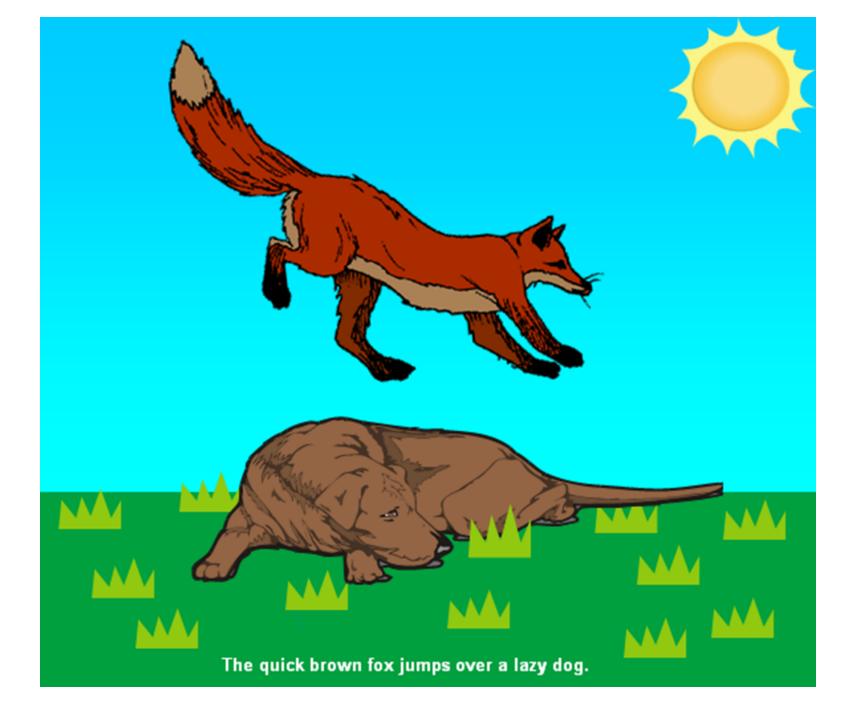


| ICE CR | | | | clear al | bockspace | finished | La |
|--------|---|---|----------|----------|-----------|----------|----|
| * | | | | | - | | 1 |
| А | В | С | D | E | F | G | Н |
| | J | К | L | Μ | Ν | 0 | Ρ |
| Q | R | S | Т | U | V | W | Х |
| Y | Ζ | | space ba | r | | | |



I'm not sure you



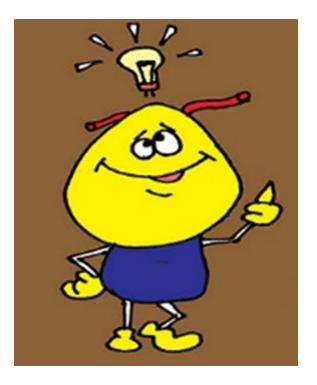


- The quick, brown fox jumped over the lazy, sleeping dog.
- 2 Minutes to create and "say" this sentence.
- Using predictive text.

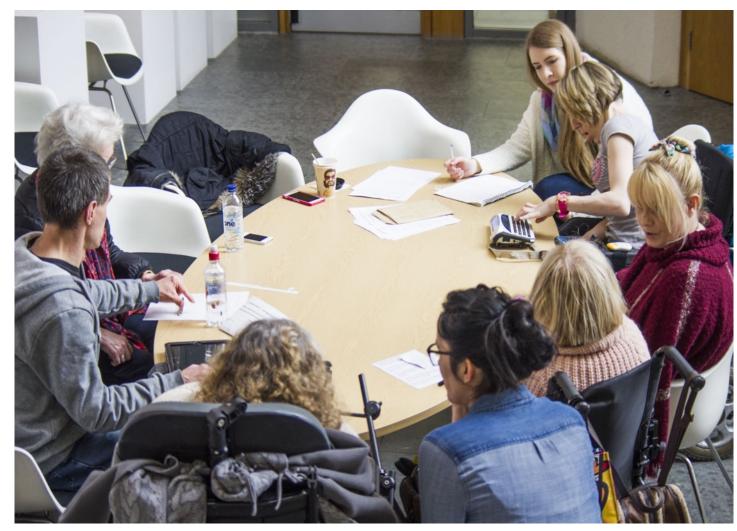
ISAAC 16



- AAC is slow
- Software not intuitive
- Cannot be just used but needs to be learned

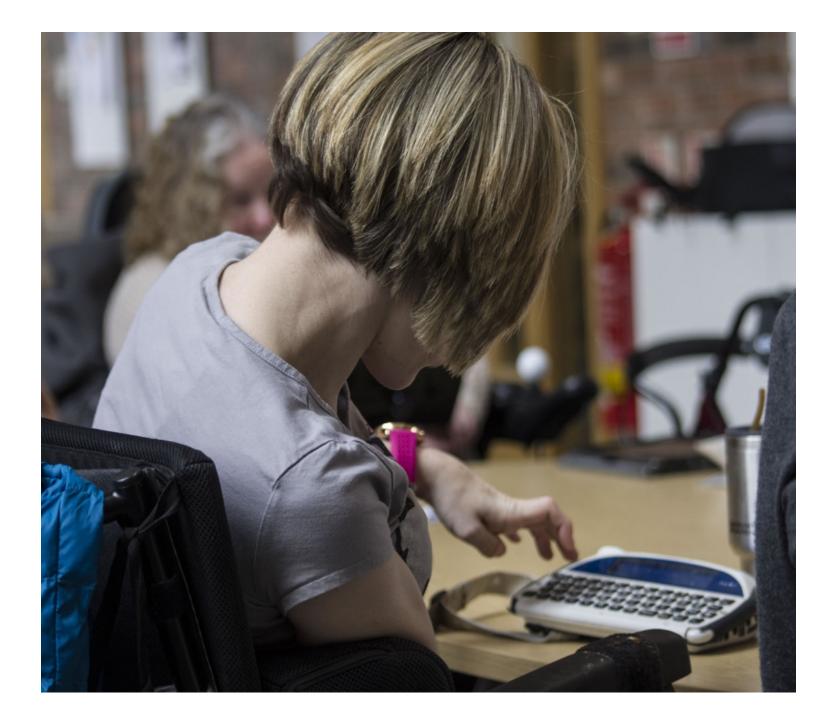


Straight Talking Group



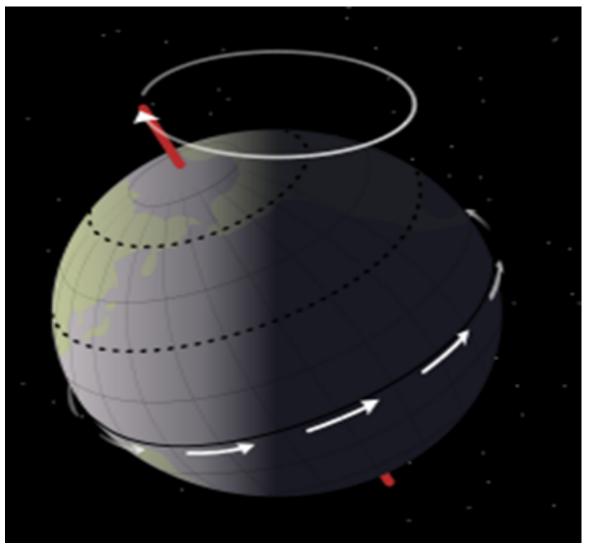


- Discuss ideas and assess individual needs
- Meet in
 Computing at
 Dundee University



 Technology hasn't enabled us to communicate any faster.

Going round in circles?



My idea



- Ultimate Software
- Ability to search online to create accurate response.
- More similar to how a conversation actually works

iPhone



- Siri as an AAC application.
- Access other information on your smartphone to create a suggested response.

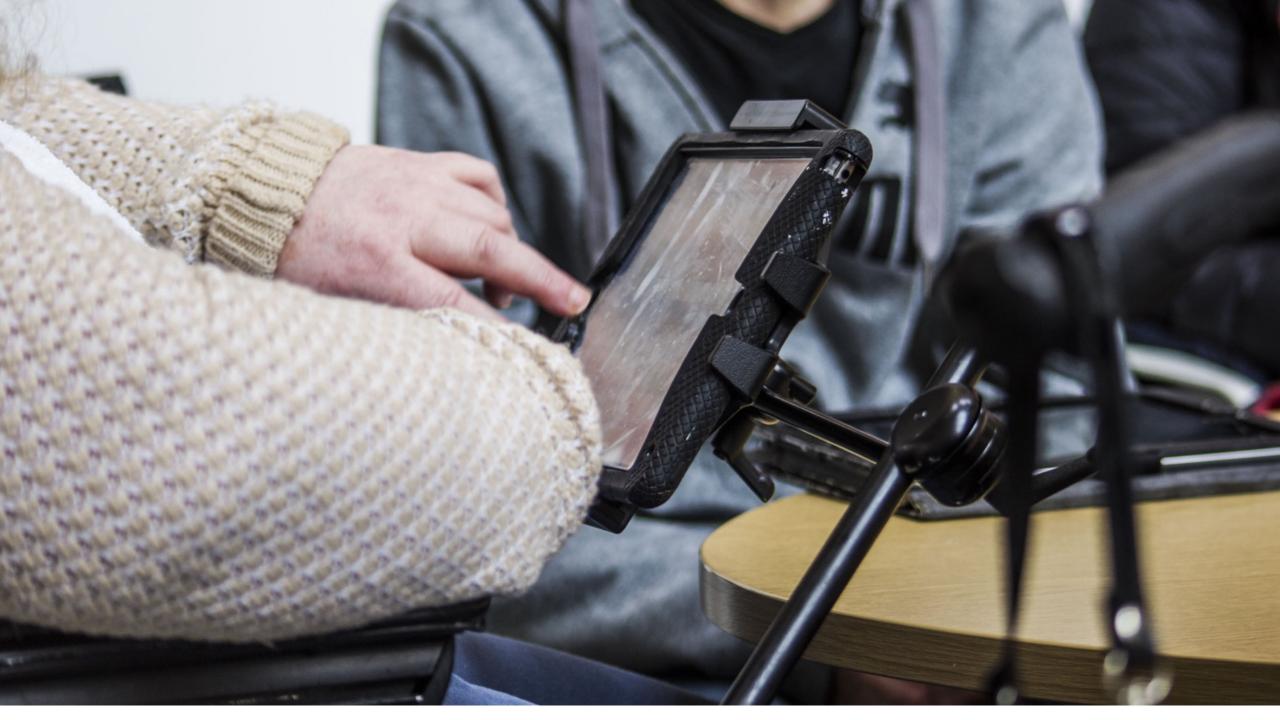


 Adapt this to work in a conversational setting?





http://aac.dundee.ac.uk/ace-lp/



Thank you.

Any questions?