

Advances in Augmentative and Alternative Communication

Augmentative Communication Service / Assistive Technology Team
Neurodisability, Great Ormond Street Hospital for Children (NHS Trust)

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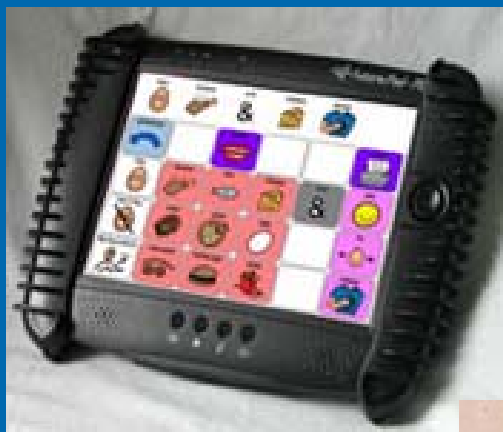
Nicola Jolleff, Lead Clinician
Jenefer Sargent, Consultant Paediatrician
Katie Price, Speech and Language Therapist

- ❑ Hospital-based service offering assessments for children with complex communication impairments: consultation is at request of local PCT team



- ❑ Team is
 - ❑ Paediatricians
 - ❑ Speech and Language Therapist
 - ❑ Occupational Therapist
 - ❑ Clinical Psychologist
 - ❑ Clinical Engineer
- ❑ Children seen have a range of diagnoses, and local teams ask a range of questions



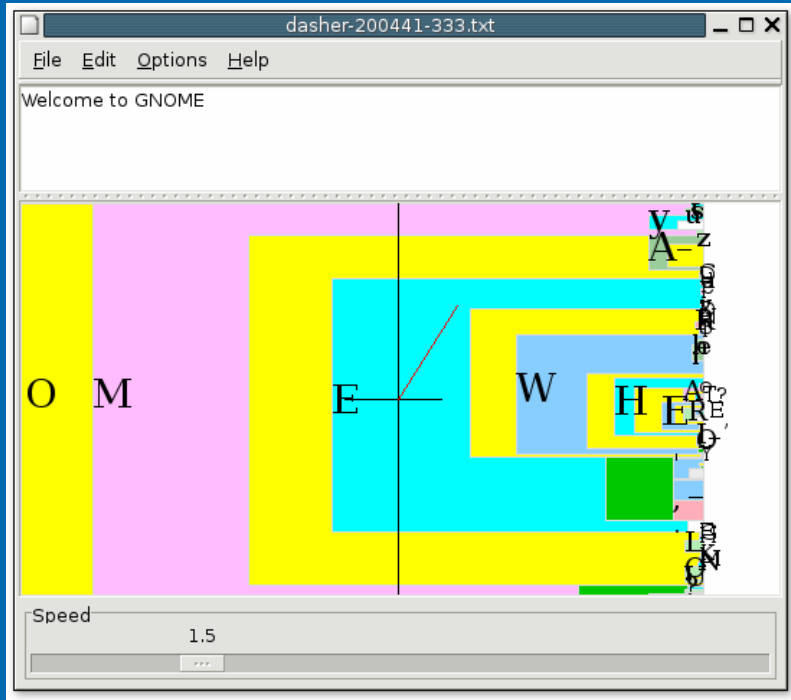


www.ace-centre.org.uk

www.communicationmatters.org.uk

British Academy of
Childhood Disability

2006		Venue
27 Feb	Swansea	Ysgol Crug Glas, Croft Street, Swansea SA1 1QA
4 April	Keighley	Victoria Hall Leisure Centre, Victoria Park, Hard Ings Road, Keighley BD21 3JN
6 April	Birmingham	UCE Birmingham, Perry Barr, Birmingham B42 2SU
19 April	London	Guy's Hospital, St Thomas Street London SE1 9RT
5 May	Manchester / Cheadle	The Together Trust Conference Centre, Schools Hill, Cheadle, Cheshire SK8 1JE
17 May	Brighouse	Kirkdale Industrial Training Services, Kirkdale House, Armitage Road, Brighouse, West Yorkshire HD6 1QF
26 June	Oxford	ACE Centre, 92 Windmill Road, Headington, Oxford OX3 7DR
27 June	Ipswich	Suffolk Trinity Rooms (Suffolk Showground), Bucklesham Road, Ipswich IP3 8UH
28 June	Worcester	Perdiswell Young People's Leisure Club, Droitwich Road, Worcester WR3 7SN
8 Nov	Newcastle	Turbine Hall at The CastleGate, Melbourne Street, Newcastle upon Tyne NE1 2JQ
22 Nov	Scarborough	Scarborough Spa Complex, South Bay, Scarborough, North Yorkshire, YO11 2HD



- ❑ *Dasher*, a text-entry interface, driven by natural continuous pointing gestures
- ❑ Used with eye-movement access, *Dasher Eye Control Optimisation*



<http://www.inference.phy.cam.ac.uk/dasher>

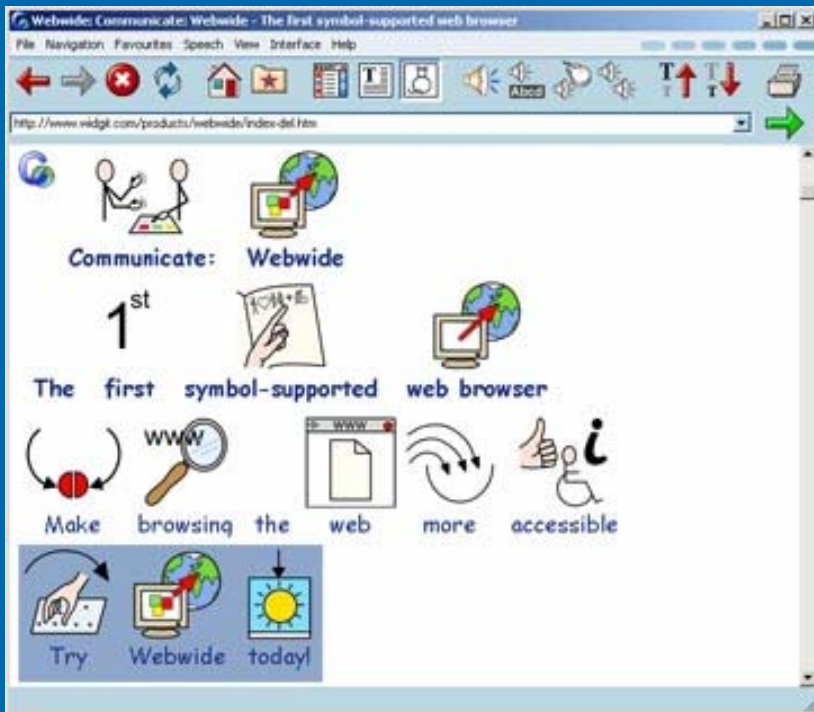
<http://www.ace-centre.org.uk>

Stair Function



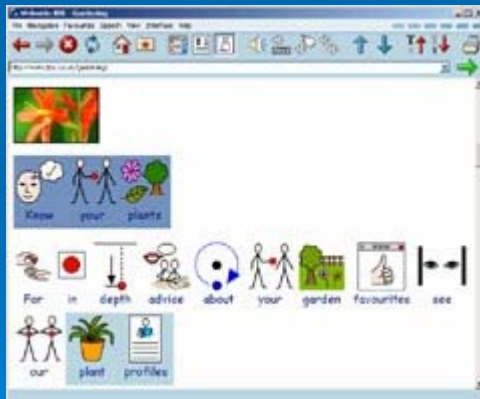
- ❑ iBOT Mobility System
- ❑ A wheelchair which can climb stairs, approved now by the FDA in the US, and retailing currently there at \$29,000

<http://www.independencenow.com>



- initiatives to make web and email-based technology more accessible to people with communication, language and/or cognitive impairment

- CCF symbol concept-coding Project will allow instant “translation” across symbol systems



<http://www.wwaac.org/>

<http://www.widgit.com/products/webwide>

<http://www.isaac-online.org>



Other advances affecting
a wide range of children ..

- **Referral patterns for AAC/technology advice are changing**
- **Comprehensive assessment of children with multiple disabilities is developing:
no more “unassessable” children**
- **Service delivery issues:
“new approaches”**



- ❑ Increased tailoring/efficacy of individuals' communication systems
- ❑ Increased participation for children with severe communication impairments

□ Referral patterns are changing



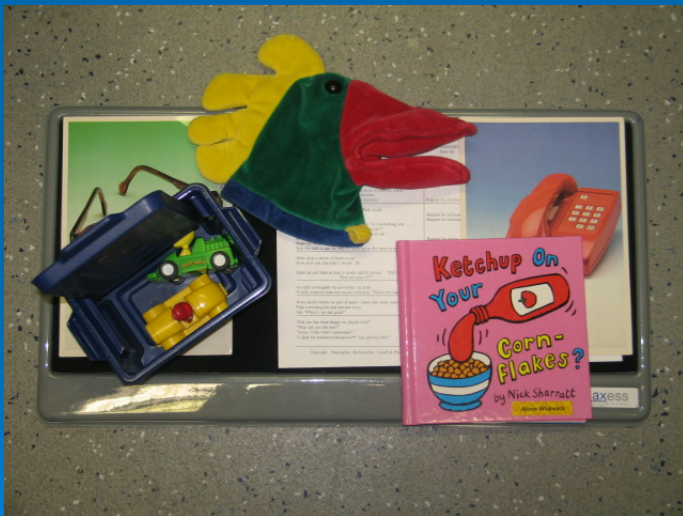
- increased expertise/confidence
- education-based assessments/provision
- increased expectation for the role of AAC with a wider range of children
 - autistic spectrum disorders
 - verbal dyspraxia
 - profound and multiple impairments
 - selective communicators / PTSD
- recognition of co-morbidity of conditions



□ comprehensive assessment of children with multiple disabilities is developing

□ **cognitive abilities**

- better understanding of early communication development
- increase in use of tailored assessments



□ relating cognition levels to other AT functions (powered chair driving, scanning, use of complex voice output communication aids)

□ Understanding of the importance of vision skills for communication

Vision: a functional skill for communication

Unpacking “eye-pointing”

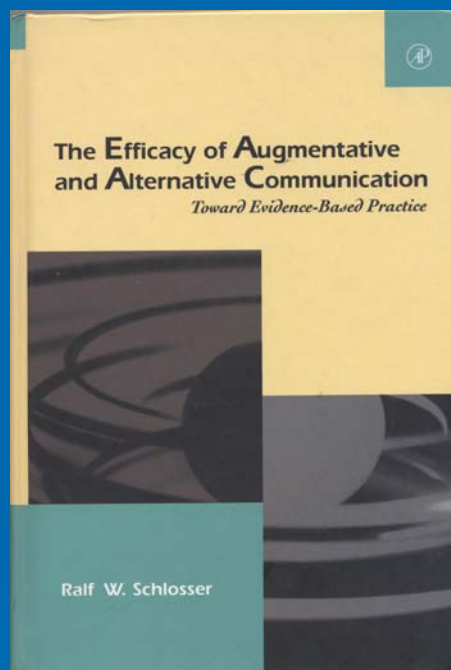
Visual/physical skills

- ❑ Sufficient acuity to see object/picture
- ❑ Cognitive *recognition* of object/picture
- ❑ Visual attention to search/find/maintain gaze
- ❑ Control of eye movements
- ❑ Adequate head control to maintain gaze/use head turns to seek and select chosen symbol, and return gaze to listener

Cognitive/social communication skills

- ❑ Intention to communicate a message
- ❑ Active participation in gaze / shared attention

- Service delivery issues



- **Evidence-based practice, including outcome measures**
 - allows better “grounded” discussion of role of AAC and the resources “pie”
- **Family-centred practice**
 - overt and focused questions to address child’s communication needs
 - negotiated participation in assessments and interventions
- **Multi-agency working**
 - understanding Education/Health/Social Services models of working for children with severe communication impairments

P level	Personal/ Social	Hearing/ Language	Eye/Hand	Performance
P1i	6-12 days	3 days		3 days
P1ii	18-24days	6 days	3 days	18 - 2 ¼ mths
P2i	1- 1 ¾ mths	18 days -2mths	9 days-1 mth	2 ¾ - 4 ½ mths
P2ii	2 - 4 ½ mths	2¾ - 5¼ mths	1¾- 3½ mths	5 - 5 ¾ mth
P3i	4 ¾-7 ¾ mths	5¾ - 10 mths	3¾- 5¾ mths	6 + mths
P3ii	8 to 10 mths	10 ½ - 13 mths	6-15 mths	

Martin K, Price K, Thomas P (2005): P levels and Griffiths Development Scales (Presentation at BPNA, Bristol)



- ❑ Increased efficacy of individuals' communication systems, and of distribution of resources
- ❑ Increased *valued* participation for children with severe communication impairments

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