Invited Paper

I Phone, therefore I Can

Use of iPhones as Augmentative and Alternative Communication Devices to Facilitate Social Inclusion of People with Autism Spectrum Disorders

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Presentation Outline

- Challenges for people with autism spectrum disorders
- New solutions in the new paradigm.
SAHK

- NGO with 46 years of history
- Supports people with a physical or intellectual disability due to impairment of the nervous system
- 52 services units, serving more than 4,500 persons with a disability annually.
People with Autism Spectrum Disorders (ASD) 自閉症

- Significant impairments in social communication and interaction skills
- Interests are restricted
- Activities are repetitive.
People with Autism Spectrum Disorders (ASD) 自閉症

- Tend to be visual learners
- A picture is better than a thousand words
- They understand what they see much better than what they hear
- Augmentative and alternative communication aids are required
- Visual strategies and video modelling are popular training methods.
Visual Strategies

- Social story boards
- More appropriate for young children.
Visual Strategies

- Activity procedure or schedule

Taking the MTR

- Not suitable for outdoor activities.
Communication Book

- Personalized book systematically categorized to express users’ needs
- Trains the clients to interact with other people.
Stigmatization

- Does not help in social inclusion or dignity.
Stigmatization

- Why stigmatize?
- Do you and I rely on conventional wisdom anyway?
Stigmatization

- Why stigmatize?
- Do you and I rely on conventional wisdom anyway?
New Solutions in the New Paradigm

- Which one do you use every minute for advice?
New Solutions in the New Paradigm

⇒ Social inclusion and dignity.
I Phone, Therefore I Can

We propose to use iPhone Apps to enhance the social and vocational aspects of clients with ASD:

- Handling daily routines
- Vocational training
- Scheduling
- Route finding.
App: Proloquo2go (US$189.99)

- Helps to compose sentences from pictures
- Provides text-to-speech support
- More suitable for people with speech impairment
- Spoken Chinese not supported.
App: StepStones (US$9.99)

- Augmentative learning tool for (visual) activity schedule.
Case Study 1
Handling Daily Routines

- Go to the supermarket.
Case Study 1
Handling Daily Routines

- Get a trolley.
Case Study 1
Handling Daily Routines

- Locate the products.
Case Study 1
Handling Daily Routines

- Put the products into the trolley.
Case Study 1
Handling Daily Routines

- Line up at a sales counter.
Case Study 1
Handling Daily Routines

- Pay at the sales counter.
Case Study 1
Handling Daily Routines

- Put into the carrying bag.
Case Study 1
Handling Daily Routines

- Return the trolley.
Case Study 1
Handling Daily Routines

- Activity completed.
Case Study 1
Getting a Trolley
Case Study 1

Following the Procedure
Case Study 1

Locating the Products
Case Study 1

Paying at the Sales Counter
Case Study 1
Returning the Trolley
Case Study 2
Vocational Training
Case Study 2

Vocational Training
App: Clock

- Standard built-in Apps
- Set alarm clock for events
  - such as daily schedule or taking of medicine.
App: Video Playback

- Standard built-in App
- Facilitates clients to learn new job skills
- Not practical for clients who need step-by-step on-the-spot reminders of the procedure.
App: GPS

- GPS with Google Map and street view helps clients to identify routes when they are employed in jobs such as messengers.
App: GPS Tracker (Freeware)

- Tracks the location of clients (especially those with intellectual disability)
Cost and Benefit Analysis

- Cost of iPhone: $$$
- Social inclusion
- Dignity

*Invaluable.*
Looking Ahead

- Standard hardware and software are available
- The need for more personalized “software”:
  - Handling daily routines and vocational training.
Conclusion

- I phone, therefore I can
- Social inclusion is indeed feasible when given the opportunity and support.
Your Comments are Welcome
Thank you