

AAC-RERC



SPREAD THE WORD

Report on the 2012 AAC-RERC State of the Science Conference

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The AAC-RERC III Partners

(2008 – 2013)

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SOSC Report Timeline

March 2012: *Assistive Technology Journal* special issue on future directions of AAC research.

June 2012: SOSC held in Baltimore, MD. 75 invited representatives from key stakeholder groups. (videos and ppt slides from meeting placed on www.aac-lerc.com)

August 2012: International feedback on SOSC presentations obtained at the ISAAC conference, Pittsburgh, PA.

November 2012: Report distributed to SOSC participants requesting feedback

December 2012: SOSC report released (on website)

Three Main Themes

1. Framing the future against a backdrop of shifting realities (Beukelman)
2. Language and learning: Opportunities and future directions (Fried-Oken & Light)
3. Adaptive access for people with disabilities affecting communication, motor and cognition: Opportunities and future directions (Higginbotham & Fager)

Shifting realities for disabilities & AAC

- Number of people who need AAC will increase.
 - Increased life expectancy for young and old.
 - Patient provider communication changes
 - Developing countries' needs
- Changing disability profiles will affect the future design of AAC technologies.
 - More people with autism and IDD
 - More people with TBI
 - More severe motor access challenges
- Technological innovations will shape the nature of ability & disability.
 - Gesture-based & speech recognition GUIs.
 - “More like my peers” mobile technology needs

- Adaptive AAC technologies that support learning and communication performance across settings will be required.
 - Mainstream computer games that adapt to performance
 - Natural language processing for webcrawling, language learning
- Changing policies, practices, cultures, funding opportunities
 - Distance intervention
 - Reimbursement per diem caps
 - Financial support for educational and medical conditions

Themes from the field

- Continue to listen to and learn from those who rely on AAC, as well as their families, caregivers & AAC interventionists.
- Include a focus on new AAC **populations** (i.e., progressive aphasia, dementia, second language learners)
- Learn more about incorporating **visual content** into AAC technologies and how these features can support the **co-construction** of messages.

- Focus on strategies to enhance **text learning** by children with AAC needs, especially as they transition from pictographic to text representations.
- Develop technology that supports the **changing needs** of individuals users' physical, linguistic and cognitive skills over time.
- **Learn how AAC can best utilize evolving mainstream technologies and influence developers and manufacturers of new technologies to include features important to people with CCN.**

Future directions for mobile computing and AAC apps

“Mobile computing in AAC is like a whale coming down the channel and the ocean liner isn’t moving away fast enough!”

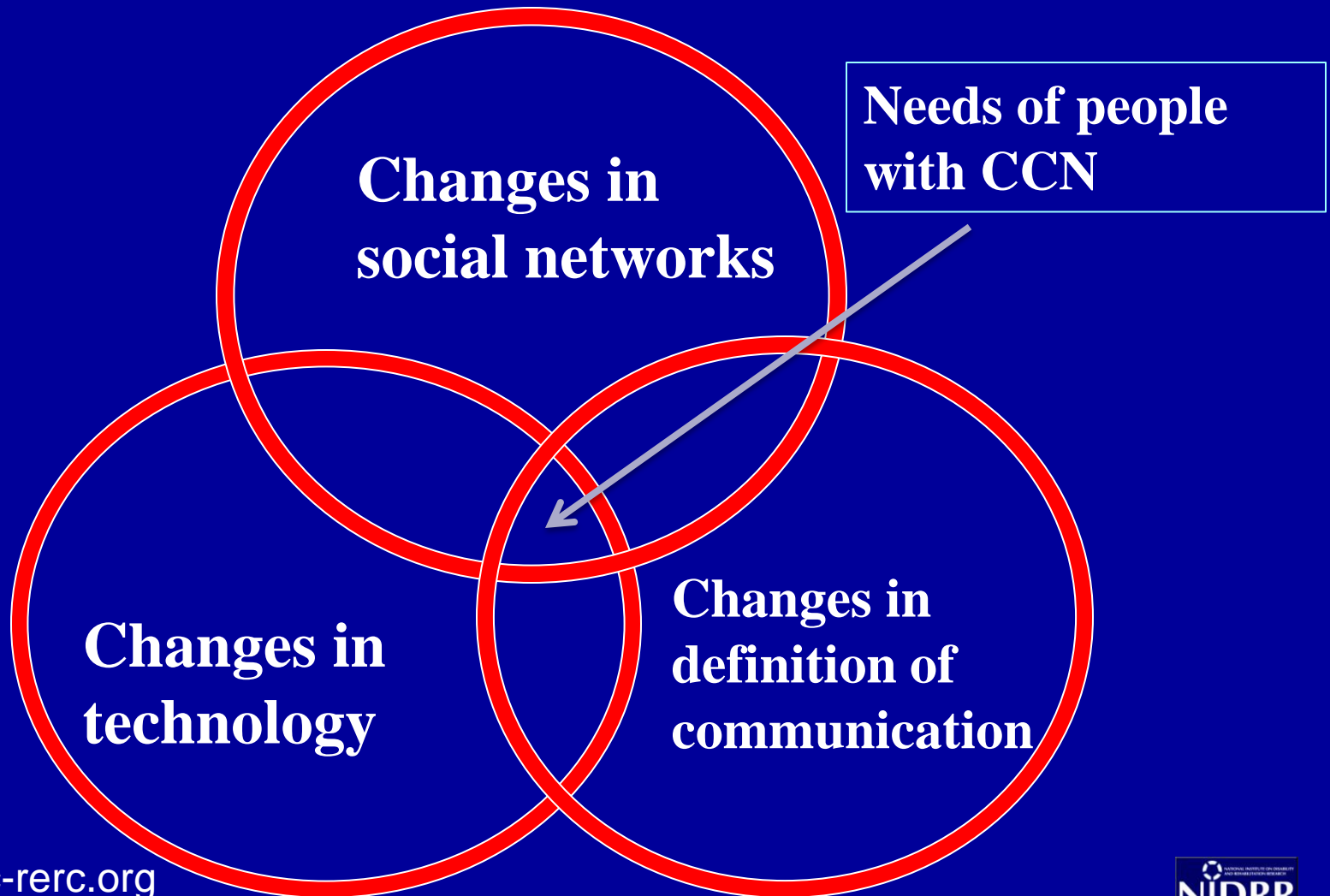




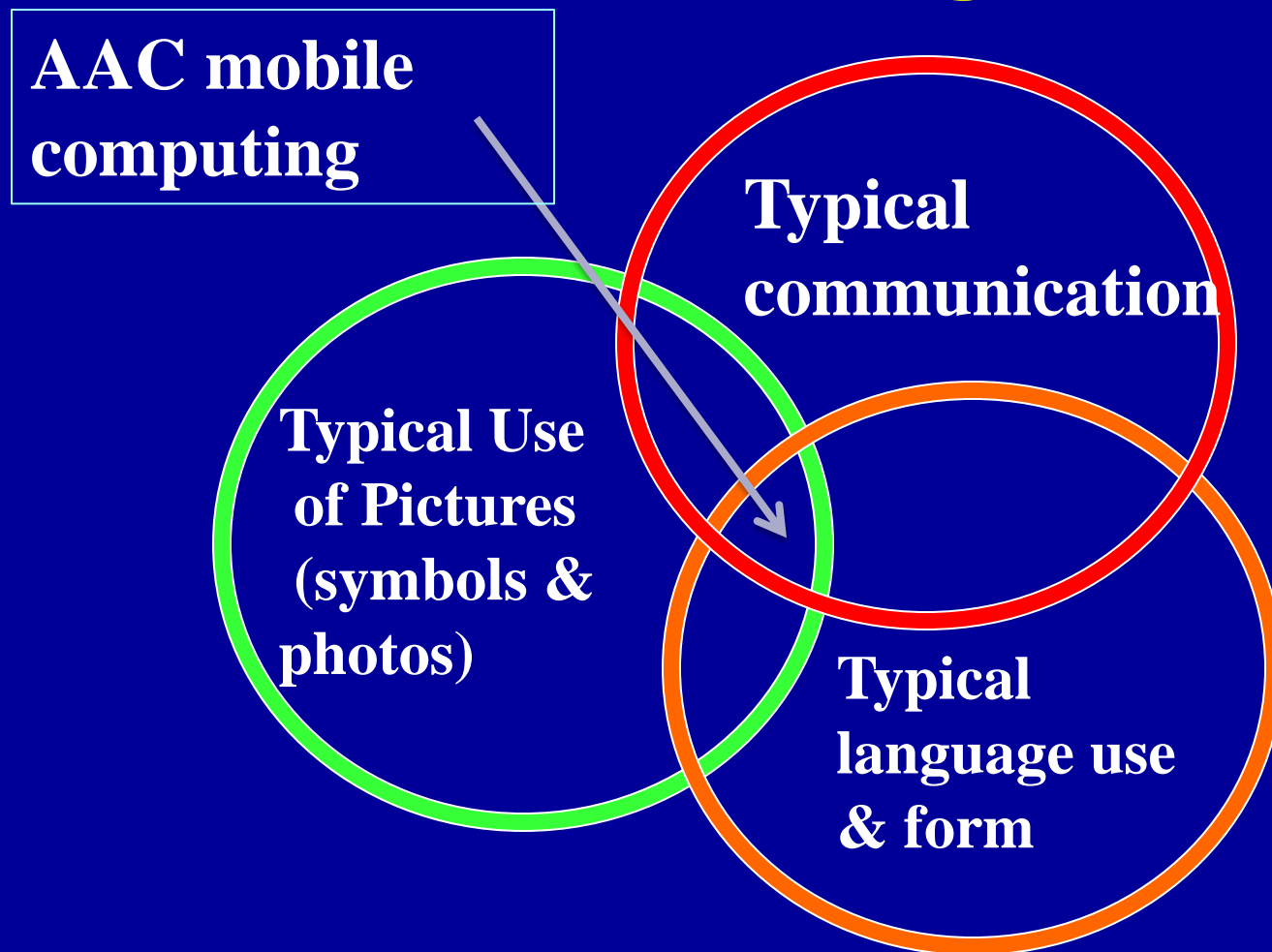
www.murraymitchell.com

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Changes that go way beyond hardware and software domains



Within a communication culture of change



Areas of concern for AAC mobile technology

1. Public Policy
2. Evidence-Based Research
3. Practice

Policy implications

1. Agency funding (school districts, rehab centers) won't support every app.
 - What 5 -6 apps will be supported?
 - What apps will be shared, backed up, upgraded, taught to all staff?
 - How does this pose barriers for users? Industry?
2. If mobile computing comes under the Telecommunications Act, what other ADA policies should we be discussing for accessibility? For cell phone use?

3. Affordable Care Act: Value based care

- “Associated technologies”
- “rehabilitation and habilitation”
- Is effective communication part of medical necessity?

4. Broader use implications

- First responders for people using AAC and emergency preparedness legislation
- Joint Commission: Patient-provider Communication
 - Second language learners
 - ICU users

Practice Implications: Uses of devices

- Learning, education
- Information access
- Shopping
- News
- Telephone
- Radio
-  Face to face communication
-  Asynchronous communication
- Videos, Youtube
- Camera
- Games
- Conferencing
- Picture based networking
- Word based networking
- Remove communication from the mobile technology game?

Practice implications

1. Consumer based movement: No gatekeepers but no quality assurance
2. Is there a developmental (or degenerative) basis to learning language with mobile apps?
3. How can we incorporate mobile technology as just one more modality in a multi-modality communication process?
4. Who should be the providers? Parents? Therapists? Teachers? Peers?
5. How do we justify practice?

Research Opportunities

- With the rapidity of change, people are looking for resources and guidance, not research.
- How can we infuse new knowledge into app development?
- Mobile computing research for AAC is an OCTOPUS!! So many questions:
 - Who is using it?
 - When and how is it used?
 - When is it replacing other technologies?
 - What barriers are present?
 - What level of comm competence is needed?
 - What is the role of the partners?

Need research questions in at least 4 areas:

- **STAKEHOLDERS**

- What features do people with CCN need?
- What functions are needed?
- What population/ conditions?
- Who is the *communication partner*?

- **OUTCOMES: What outcomes do we expect from the apps?**

- **PROCESS:**

- How is mobile technology affecting a definition of communication?
- Is representation of language changing?
- Are developmental or degenerative skills needed for communication changing?
- Why do we see success with apps? No success with apps?

- **COLLABORATIVE DEVELOPMENT**

- Can we do a better job?

Current disconnects

- Users (families, children, adults with CCN)
- Researchers
- Providers
- Developers
- Regulators

Consensus about funding

When funding agencies realize that they can purchase \$500-800 of hardware and software for communication, rather than \$5,000-8,000 of devices, they will come to us with questions.

We must be ready for them with answers that meet the needs of the greatest number of stakeholders.

**The unknowns and opportunities
clearly outweigh
the answers and foundational
knowledge**



What's changing?



**What part
will you
play?**

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