# NCTI 2007 Innovator's Conference

**Date:** **Thursday, November 15, 2007**
**Panel:** **Implementation in Real World Settings**
**Names of Presenters:** **Sara Basson, David Rose, Dean Fixsen**

**Summary**

**Sara Basson,** Program Director, Speech Transcription Strategy, IBM Research (moderator)
Sara opened the session with a real life example of what it has taken for IBM to implement state of the art voice recognition in two projects, Liberated Learning (see [http://www.nationaltechcenter.org/index.php/2005/04/06/liberated-learning-a-universitycorporate-partnership-with-global-reach/]) and the MALACH project (oral histories with Holocaust survivors). She described how voice recognition in education can address a need (transcription for students who are deaf or hard of hearing or learning disabled) and a new learning paradigm (producing digital records of lectures and notes). However, she also talked about the technical challenges of voice recognition in real life settings that impede implementation such as accuracy, customization options, robustness, etc. (See slide presentation file.)

**David Rose,** Co-Founder, Center for Applied Special Technology (CAST)
David discussed Disruptive Technologies OR: Finding Innovations Worth Implementing. He built his discussion on Dean Fixsen's cycle of implementation and discussed the history of CAST in reference to the stages of this model. He gave four main lessons learned:

1. Innovations are hard to implement.
2. Innovations worth implementing are especially hard to implement.
3. Innovations are hard to implement because they cannot be simply assimilated, they require accommodations.
4. Innovations worth implementing – e.g. disruptive technologies– cannot be assimilated and accommodated without fundamentally changing the culture.

**Dean Fixsen,** Co-Director, National Implementation Research Network and the Louis de la Parte Florida Mental Health Institute
Dean shared his work over the years to synthesize a model of implementation across disciplines and apply that model to education. He calls this work in the "Science to Service" or the "Implementation" gap. The cycle he identified (which should be considered as iterative) is: Exploration, Installation, Initial implementation, Full implementation, Innovation, Sustainability

Key ideas:

- His research suggests expecting 2 – 4 years for the first four steps; 5 – 7 in education
- Sustainability has to be planned for from the beginning
- Evaluation should not be done in initial implementation but when you've reached 50% of your practitioners (although this is not how most grant funding organizations require projects to function)
- At some point, systems need to clean out the old leftover legacy interventions that are causing misalignment all along the implementation chain: a "do over"
- Implementation work needs to help systems work toward and alignment of goals

(See slide presentation file.)

**Discussion Questions:**

*1. What do you see as the role of the technology vendor in this process?*
David Rose: All the technology providers need to be focused on aligning to the student outcomes; that's a real challenge particularly in the AT community about being evaluated on educational outcomes which can be seen outside of the scope of the technology. But AT always needs to be at the forefront inventing, but as they show outcomes, they need to start being included as a UDL core component.

*2. I'm wondering if there are things put in place to begin this process in the pre-service teaching environment?*
Dean Fixsen: Every human service discipline is struggling with backing the new thinking into higher education and addressing workforce preparedness issues.

*3. Where does the community come in – the majority of the population that doesn't have a child in K-12?*
Dean Fixsen: the community is so important at the Exploration stage and articulating alignment; look into complexity theory – *tame* problems are engineering problems, *wicked* problems fight back because you have stakeholders involved on all sides now energized by an articulated problem; the best solution to wicked problems is mediated resolution – which means solving the same problems over and over again.
David Rose: I wouldn't be true to UDL if I didn't say there are multiple paths to alignment, there is not a single alignment.