ICDR
Assistive Technology/Technology Forum

Clayton Lewis, NIDRR Consultant

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Information Technology Offers Crucial Benefits for People with Disabilities

- Screen reader tools
- Augmentative and Alternative Communication (AAC) devices
- Switch-based controls
- Ubiquitous online access to information and services
- …

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Key Underlying Principle: Flexibility in Presentation and Interaction

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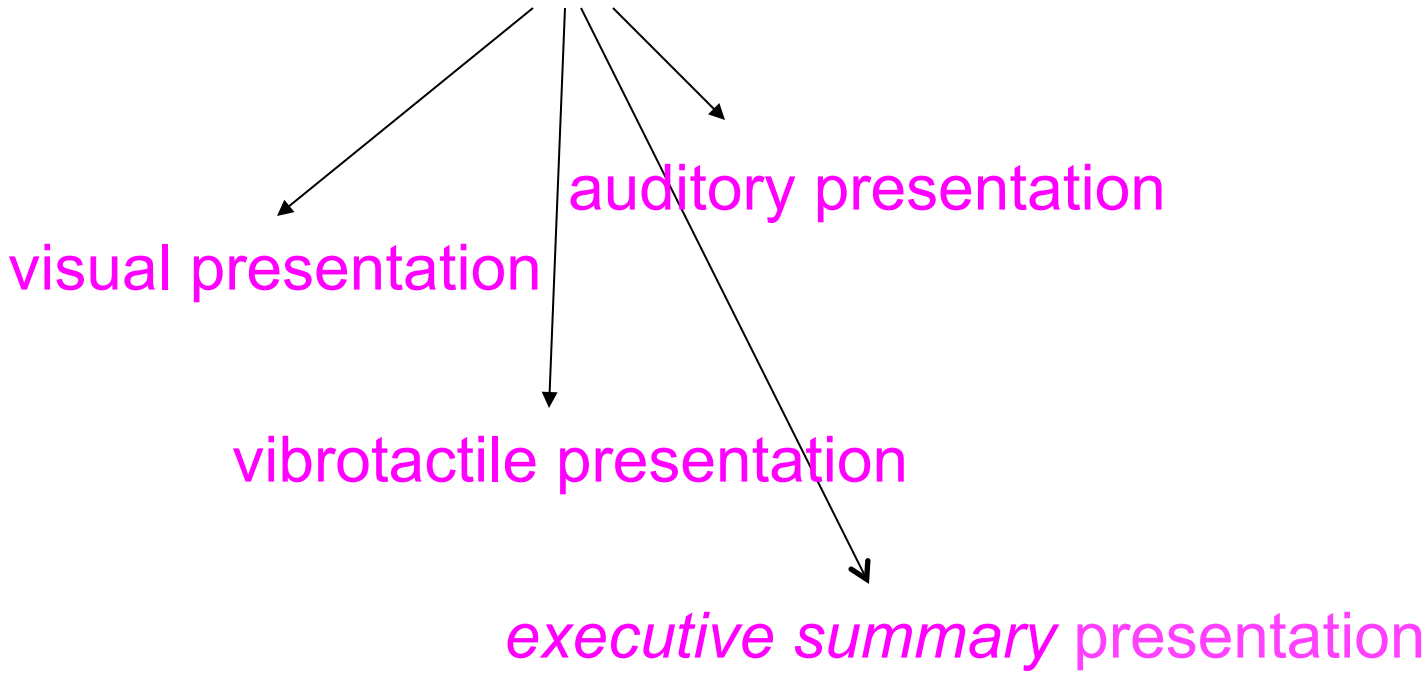
machine readable representation



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similar transformations are possible for interaction as well as for presentation

the existence of the “keyboard interface” layer in operating systems supports use via a wide range of interactions

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An Opportunity and a Challenge:

The flexibility of mainstream digital technology for assistive applications

Saltillo Android AAC

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So in theory we can make content and services accessible, and offer flexible supports … but in practice we often struggle to do so.

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Opportunity

- Use technology itself to make technology more flexible in practice
  - Make it easier for people who use technology to configure it to meet their individual needs and preferences
  - Make it easier for people who create content and services to make them flexibly accessible
  - Make it easier for people to create new assistive technology… including people with disabilities themselves

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Support for Software Providers

- GPII infrastructure enhancements aim to
  - Simplify the development of accessible applications
  - Support online delivery of tools and services
    - personalization for access
    - subscriber authentication
- New and better services will result

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In our grasp?

Enabling people with disabilities themselves to create technology to serve their needs.

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Also trending:

- Information available online anywhere, anytime

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Opportunities from data:

- Manage services more cheaply and more effectively
  - Example: shared data management and reporting for service providers
  - Example: data sharing between Rehabilitation Services and Social Security
- Provide new services
  - Example: enhanced social support through online interaction
- Better evaluate services: what works, for whom?

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Another Challenge

- Do we have the structure of rights, laws, and policies needed to deliver the potential of emerging technology?

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Technology Opportunities Have Wide Implications

- Across the government:
  - NIST, Dept of Ed, VA, SSA, Labor,…
- Internationally
  - Cloud4All project underway
- How can ICDR help develop effective partnerships?

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Today's Presenters

- Peter Blanck, Chairman, Burton Blatt Institute, Syracuse University
- Gregg Vanderheiden, Co-director, Raising the Floor International
- Cathy Bodine, Executive Director, Assistive Technology Partners
- Marcia Scherer, President, Institute for Matching Person and Technology
- Jim Tobias, President, Inclusive Technologies
- Michelle Bennett, Deputy Scientific Director, National Heart, Lung, and Blood Institute

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Procedure

- Please text questions or comments during the sessions
- I'll organize your input for the discussion
- If time and logistics permit, we'll also arrange for voice input

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- Back up slides follow

Advances in Software Architecture for Flexibility

To respond flexibly the GPII approach uses a form of Inversion of Control (IoC), enhanced to permit specification of user preferences when services are requested.

Antranig Basman, Colin Clark, GPII Architects

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GPII Status

- Cloud4All
  - $11M European Commission project to implement key aspects of GPII
  - Launched Nov 2, 2011
  - Additional amounts in international matches
- NIDRR committed to the development of this potential in the USA

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NIDRR's Cloud Initiative

- Pilot implementations in partnership with other agencies
  - education, voting, cloud computing deployment
- Development work to complement international efforts
- Cooperation on strategic research

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