Pioneering Literacy in the Digital Wild West
Empowering Parents and Educators

Joan Ganz Cooney Center & New America Foundation
The Campaign for Grade-Level Reading
The Campaign for Grade-Level Reading focuses on the most important predictor of school success and high school graduation—grade-level reading by the end of third grade.

Schools cannot succeed alone. The academic success of children from low-income families will require engaged communities mobilized to remove barriers, expand opportunities, and assist parents to serve as full partners in the success of their children.
Can well-deployed technology help equip low-income parents and teachers with the tools and information they need to promote children’s reading? Also:

- Can technology help connect parents to literacy initiatives?
- How is technology used by teachers in early education?
- What helps bridge informal and formal uses?
Depending on content and context, digital media have been shown to spark learning.

Technology is now a big part of children’s lives.

But access and use varies…

…which may exacerbate already wide achievement gaps.
In search of “learning together” moments
4 Guiding Principles

Skills + knowledge: Reading requires both

Technology by itself is not the answer

Parents are crucial

To ignore technology is to allow gaps to widen
Could educators and tech developers encourage families to watch, talk about and play with digital media together? What can be done to prompt more back-and-forth conversation — a cornerstone of children’s language development and later reading skills?
The Cascading Effects of Connected Parents and Educators Engaged with Children (0 – 8) Around Quality Media

“Serve and return” conversations, right from the start, with engaged parents and caregivers

“Blooming” in language development, acquiring background knowledge and approaches to learning how the world works

At ease learning early literacy skills and drawing on growing stores of knowledge to comprehend printed and digital texts

By third grade: Proficient readers, confident learners, empowered to reach their full potential
the new coviewing:

Research and design for learning together in a digital age

Lori Takeuchi
And Reed Stevens
Studies show that the value of:

- Reciprocal social interaction
- Verbal interactions
- Engagement and joint attention

Via media.
The field of early ed is recognizing technology’s emergence.
Digital media are part of preschoolers’ lives

Low-income families less likely to have latest tech or to use apps

Children from low-income households use apps and mobile devices less frequently than children from high-income households (Common Sense Media, 2011).
Neuman & Celano studied two libraries in Philadelphia serving two different socio-economic classes.

Finding: Vast differences in how adults interacted with children using computers and digital games, as well as books.
A swelling marketplace

Over 80% of top selling paid apps in the Education Category target children; of those, 72% target preschool aged children (JGCC, 2012).
Feeling a little like the Wild West
Our scan of the landscape
A two-pronged approach

**Products**
- Apps
- E-books
- Games
- Websites

**Programs**
- Supporting parents
- Assisting teachers
The data (April 2012)

Apps
- Top 20 paid “educational literacy” apps in iTunes
- Top 20 free “educational literacy” apps in iTunes
- Top 20 paid “educational literacy” apps in Android
- Top 20 free “educational literacy” apps in Android

E-Books
- Top 20 featured e-books for kids on iTunes*

Games
- Reviewed “educational literacy” games on Common Sense Media for kids ages 2-8, released 2007-2012; n=17

Websites
- Top 20 reviewed “educational literacy” websites on Common Sense Media; must include content for kids.
The products had to target one or more of the following areas associated with literacy:

- Print concepts
- Letters and letter-sounds
- Phonics with word recognition
- Letter Writing
- Sight Words
- Spelling
- Vocabulary
- Comprehension
- Understand and tell stories
- Grammar
We only looked at products targeting 0-8.

Target age groups

- **Preschool**
  - Apps, E-books, Websites

- **Early Elementary**
  - Apps, Games, Websites

- **0-2**
Key finding: most of the popular apps target very basic literacy skills
Only few apps went further.

- Understand and tell stories
And very few help with building background knowledge. Here’s one exception.

- Comprehension
Websites target larger range of literacy skills

Percent of Websites Targeting These Areas of Literacy

- Print Concepts: 11%
- Phonics and Letter-Sounds: 50%
- Letter Writing: 67%
- Sight Words: 0%
- Spelling: 39%
- Vocabulary: 44%
- Comprehension: 44%
- Understand and Tell Stories: 78%
- World Language: 11%
- Grammar: 11%

** 2 websites were excluded because we did not have a subscription.
45% of web sites we scanned target more than just literacy
E-books

- Extraneous “hot spots” can impede the traditional reading process for parents and children and may affect children’s comprehension. (*JGCC*, 2012).
- Parents are reading e-books with their young children, based on survey of 1200 middle class parents with child age 2 to 6 (*JGCC*, 2012).
E-books in the app store offer many features....

... but they are not necessarily features to enhance literacy learning.

- Almost all include narration, but only half highlight the text.
- Most include interactive features that are not literacy oriented.

<table>
<thead>
<tr>
<th>Feature</th>
<th>Percentage</th>
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<tr>
<td>Narration</td>
<td>95%</td>
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<tr>
<td>Hotspots</td>
<td>75%</td>
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<td>Word/picture labels</td>
<td>15%</td>
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<td>Dictionary</td>
<td>5%</td>
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<tr>
<td>Games/Activities</td>
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<tr>
<td>Literacy activities</td>
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<tr>
<td>Music/sounds</td>
<td>60%</td>
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<tr>
<td>Animation</td>
<td>50%</td>
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<tr>
<td>Tilt/shake/turn device</td>
<td>30%</td>
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<td>Record Own Voice</td>
<td>25%</td>
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<td>Different Languages</td>
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<td>Parent Involvement</td>
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<td>3D effects</td>
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<tr>
<td>Camera</td>
<td>5%</td>
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</tbody>
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Photo by JGCC Research Team
Program Scan

April 2012 – November 2012
Interviews and research
Parents prefer participating in activities with their kids that involve older media – watching TV (89%), reading books, (79%), playing board games (73%) (JGCC, 2011).

Parents think that computer-based activities are most valuable for young children’s learning (JGCC, 2011).

On the power of video: “Providing that visual, seeing and hearing, and having parents see parents who they can relate to… that can make for some of those ‘aha’ moments where change can begin to happen.”

-- Kathleen Strader, Zero to Three

Photo by JGCC Research Team
Comienza en Casa

- Migrant family literacy in Maine
- iPads + offline ‘play-based’ language activities

Ele, by the Fred Rogers Center

- Early learning environment for home-based caregivers, including parents
- “Library and playroom”
- Create “playlists” of activities

The Baby Elmo Program

- Modeling positive parenting via Sesame Beginnings videos
- For incarcerated fathers
Wonderopolis

- National Center for Family Literacy
- “Wonder of the Day” for language/cognitive development

Storytimes Online

- Picture-book-of-the-day via free e-subscription & literacy activities daily on public library websites
- Idaho (recent winner of IMLS grant), Virginia, South Carolina
Pocket Literacy via Ounce of Prevention Fund
- Sends daily texts to parents’ mobile phones with ideas for literacy activities
- Head Start parents will evaluate the service in 2013

Mind in the Making Learning Communities
- Parents, educators and health professionals gather to watch video clips from baby experiments and discuss Ellen Galinsky’s *Mind in the Making*
- 35 organizations in 22 states
Findings: Pioneers in using tech to assist teachers

Children’s Literacy Initiative’s Compass
- Free video library of strategies for teachers (how to engage children in books, dialogic reading techniques). Dept. of Ed funded.

Success for All embedded video
- Augmenting reading lessons with video clips and computer-assisted tutoring.

Targeted Reading Intervention
Innovations for Learning

- Computer-based reading programs assist teachers and enable volunteer tutors who call students in the classroom via a Skype-like system as children read online books.

iRead

- Students use iPods to record themselves reading books; teachers listen to audio files and personalize instruction according to what they hear.

Ready to Learn “transmedia” products

- Creating and evaluating suites of learning products for parents and teachers across various platforms, including TV, Internet, and tablets.
Future mapping: Four approaches to consider

Promoting personal connection
- Social networking
- Texting via mobile device

Reinforcing basic skills
- App games that test phonics knowledge
- Flashcards for sight words

Building background knowledge
- Video field trips
- Children’s literature available as e-books

Improving the workforce
- Professional dev hubs / online courses
- Better, on-demand access to curricular materials
5 Recommendations: *From the Wild West to Pioneering “Literate Communities”*

- **Conduct community audits.** Assess disparities in access and capacity to deploy technology for literacy outreach.
- **Create public engagement initiatives** on the need for critical thinking about media.
- **Create a place in every community** where parents and educators can experiment together with online and offline media as a springboard for children’s literacy.
- **Support sound research** on how both technology content and contexts are affecting reading development.
- **Create partnerships for innovation.** Stimulate collaboration among tech industry, educators, parents and community institutions such as schools, libraries and universities.
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