Digital Divides:
Issues facing K-12 Education

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Overview

• Personal Perspective
• Digital Divides in Schools
  – Access
  – Connectivity
  – Knowledge
  – Policy
• On the Horizon
Come a long way...

• Pre 1990 – Plato Labs, Apple IIIs, connectivity was almost non-existent
• Post 2010 – Wireless environments, multitude of devices
Context of candor...

• Educational Technology in K-12 Setting:
  – Not ubiquitous (but could be)
  – Not consistent (but should be)
  – Gaps in teacher comfort
  – Gaps in funding for technology
    • Inequities across districts, among buildings, and between classrooms
  – Gaps in bandwidth/connectivity
Access... Urbana High Students...

- 83.5% have a computer in the home
- 47.5% have a “smart phone”
- 17.7% use computers at public library
- 2.5% have no access

From Student Tech Survey, Fall 2011
N = 830 students at UHS
Urbana High Students...

- 61.4% use technology to do school work after school hours
- 38.6% use technology to do school work during school hours
- Top three subject/courses in which students reported using technology at school:
  - English/Language Arts
  - History/Social Studies
  - Science
Urbana High Students...

• 88% rate their own ability to use technology as “pretty good” or “awesome”
• 92.3% would like to be able to have the option to BYOD
• 81.8% would be willing to have to have special instruction on appropriate use in order to BYOD
• 51% never use their district provided email address
Thoughts?

• Schools need to re-think the traditional “digital divide”
• Students continue to outpace teachers
  – Or maybe just run on a different track…
• Shifts in systems will take longer than shifts in technology
• Policies…
  – Hinder, support, or just obsolete
Connectivity

• Prior to 2008... All USD116 schools were “connected” via 1MB T-1 connection
• 2008-2010 Urbana Fiber Project (city/county/school district partnership) connected 9 of 11 buildings to dark fiber
  – Awesome, but not equitable... yet...
• 2010-2012 USD116 Wireless Environment Project extends to 8 of 11 buildings
  – Awesome, but not equitable... yet...
Connectivity II

• Current issues:
  – Cost of connectivity...
  – Cost of bandwidth...
  – Service provider...

• UC2B:
  – Potential for improving equity
  – Potential for blazing bandwidth
  – Potential for un-imaginable partnerships and opportunities for students and families
Professional Development

• Challenge of differentiating content
  – “management” vs. “instruction” vs. “learning”

• Challenge of differentiating process
  – Online PD for technology vs. In seat PD for technology
  – Job imbedded... Finding the “coaches”

• Challenge of differentiating devices/apps/OS
  – Requires huge knowledge base to create independent learners
Policy Implications

• Filters
• Acceptable Use Policies
• Social Networking
• Monitoring
• Archiving
• Family Educational Rights and Privacy Act (FERPA)
• Intellectual Property and Individual Privacy
On the Horizon...

• New era in “standards”
  – Common Core State Standards
  – "Over the next few years, textbooks should be obsolete.” (Arne Duncan, National Press Club, October 2012)

• New era of “assessments”
  – Partnership for Assessments of Readiness for College and Careers (PARCC)
  – Online... 1 to 1
  – Bandwidth...
  – Filters
  – New divides?
Questions?

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