

1976



2016



Always On, Always Connected Devices



ALWAYS-ON
CONNECTIVITY



ALL-DAY
BATTERY LIFE



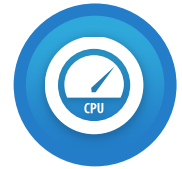
SECURITY



LOCATION
AWARE



MULTIMEDIA
PERFORMANCE

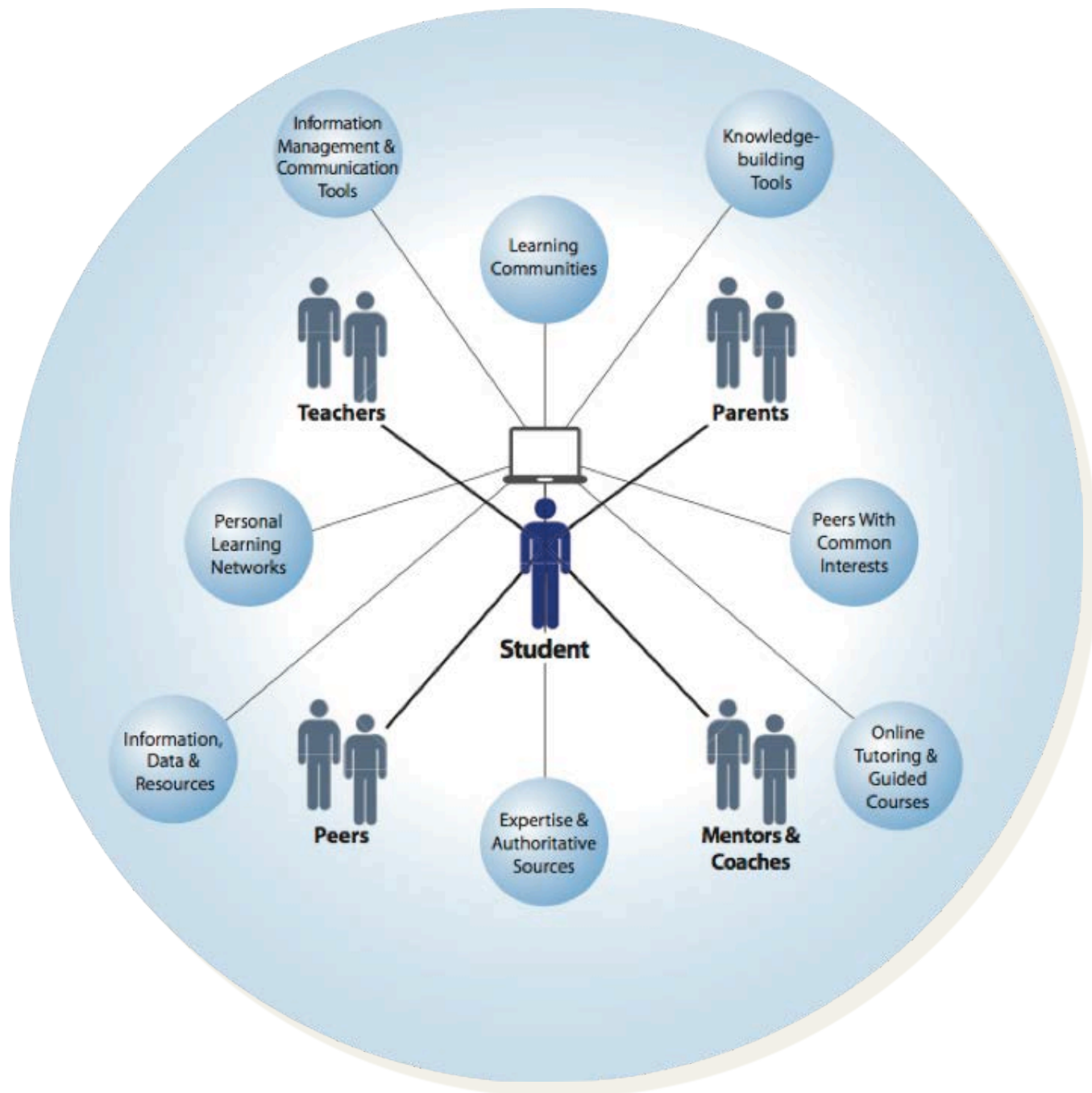


UNPRECEDENTED
POWER & SPEED



Two Types of “Mobile Learning”

- 1-1 Infrastructure in Classrooms
 - Intermediate level of Fishman & Dede
 - Becoming “new standard” rather than laptops
 - Affordable
 - Practical
 - Troubling lack of power
 - BYOD vs school-supplied
- Lifewide Learning
 - Taking device home
 - 3G/4G access an issue
 - Augmenting contexts for learning

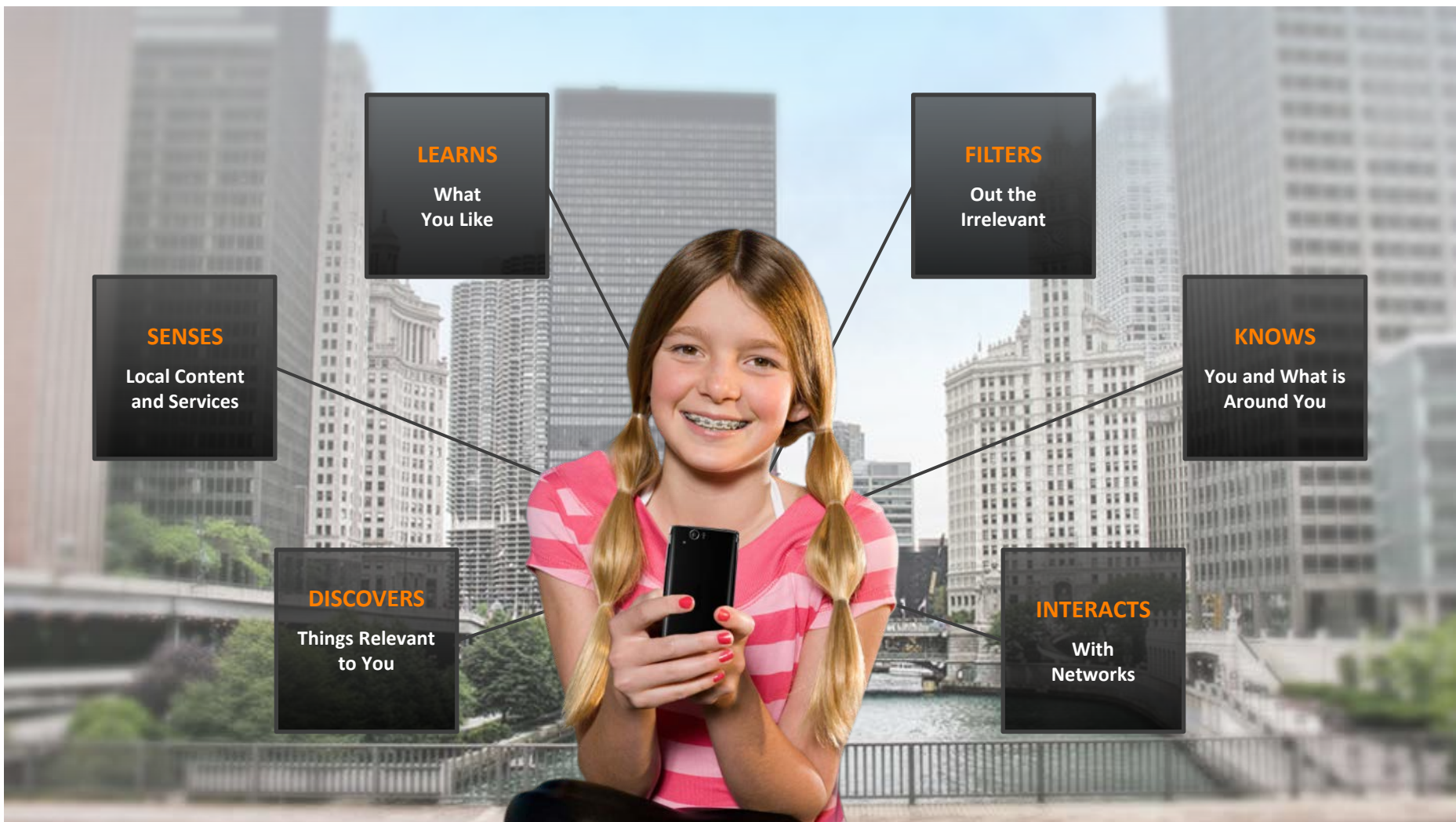


“Connected” Learning

Learning that is socially embedded, interest-driven, and oriented toward educational, economic, or political opportunity:

- 1) offer engaging formats for interactivity and self-expression;
- 2) lower barriers to access for knowledge and information;
- 3) provide social supports for learning through social media and online affinity groups; and
- 4) link a broader and more diverse range of culture, knowledge, and expertise to educational opportunity


Cross-over and Incidental Learning



Interface for Your Digital Life

IN THE FUTURE YOUR MOBILE PHONE WILL ACT AS YOUR DIGITAL “6TH SENSE”

The 8 Essentials for Mobile Learning

1. Purposeful **planning** for mobile device usage
 2. Leveraging **mobile-enabled content** & curriculum
 3. Understanding the power of **Internet access**
 - 4. Preparing educators** effectively
 5. Securing **leadership buy-in**
 6. Building personal learner efficacy and capacity for **self-directed learning**
 7. Measuring project results with **meaningful metrics**
 8. Creating a **sustainable and scalable ecosystem**
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Barriers to Mobile Learning in Under-resourced Regions

- Limited availability of electricity
- Limited availability connectivity
 - In particular, high-speed networks
- Cost of hardware and data
- Undesirable teacher salaries, resources, and working conditions
- Large class sizes
- Aligned policies from the national government
- Commercial/non-profit interests not necessarily in accord with educational needs
- Lack of evolutionary path from traditional instruction to transformational pedagogy in school and out

Mobile: Questions for Shared Reflection

1. What strategies might you use to educate the following groups about the potential value of mobile devices/networking as a source of 1-1 computing in school, life-wide learning out of school, and economic development?
 - Parents and community
 - Teachers
 - Donors and the commercial sector
 - Regional and national policymakers
2. As you develop a digital infrastructure for the school, what initial choice will you make between:
 - Bring Your Own Device (BYOD),
 - School-supplied devices (low-end tablets with no cellular), *or*
 - School-mandated devices with a subsidized leasing plan for parents and subsidized home networking?

What are the advantages and the challenges of your choice?

Mobile: Questions for Shared Reflection

3. Beyond continuing your school's emphasis on basic literacy and numeracy, on what other educational objectives do you plan to focus use of the mobile devices?
4. What types of human capacity-building will be most important for your teachers? For the community?
5. How will you ensure that your model for improvement narrows rather than widens achievements gaps based on poverty and prejudice?

Distributed Education

Who educates?

- Teachers in school
- Coaches, guides, and mentors in rest of life
- Self-directed learning through access to information and experience everywhere

How prepared?

- Schools of education prepare teachers, coaches, guides, and mentors
- Apprenticeships for each within all settings
- Self-directed learning through access to information and experience everywhere

How orchestrated?

- Social media connect teachers, coaches, guides, mentors – and parents
- Event and chat logs are analyzed to diagnose next steps in learning



(Conner Flynn)

Augmenting Real World Ecosystems

<http://ecolearn.gse.harvard.edu>