Benefits of Education Transformation

• **Increased Competitiveness**
  – 21st century skills, improve education quality

• **Employment**
  – Build job skills and competencies, re-skilling, life-long learning

• **Economic Development**
  – Grow ICT industry skills, jobs, and revenue

• **Citizenship and Social Cohesion**
  – Narrow digital divide, rural inclusion
Shifting the Learning Paradigm
Shifting the Learning Paradigm

Transitional Teacher-Centered Classroom

Collaborative classroom learning

PLANNING
CURRICULUM
ASSESSMENT

Teacher Directs

Students Collaborate
Shifting the Learning Paradigm

Student-Centered Classroom
Learning anytime, anywhere, any way

Teacher Guides

Collaboration

Community Experts

Curriculum & Resources

Real-World Projects

Personnel Learning Community

Standards-Based Assessment

ICT

*Other names and brands may be claimed as the property of others.
Systemic framework to support and improve education

• Increase national competitiveness
• Prepare citizens for the 21st century workplace
• Improve social cohesion

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Intel collaborates with governments worldwide to transform education
Our Education Transformation Model

A research-based model that considers all aspects of a national education system

• Provides a student-centered, personalized learning approach supporting 21st century skills

• Enables a broad strategic engagement with education leaders

• Supports best practices for achieving reform

• Supports strategic planning and ICT integration in classroom based on best-practice
Transforming Education for a World of Opportunity

Intel supports governments in achieving their goals with innovative education programs, technology and resources

- More than $1 billion invested
- 200 programs in 80 countries
- Working with Governments, NGOs, & technology companies worldwide
A Special Focus:

Creating rich collaborative learning environments which support:

• Improved educational outcomes
• Student centered learning and teaching
• Supporting independent learners and the development of 21st century skills
• 1-1 eLearning and ICT integration in the classroom
Policy

Effective policy is critical to establish the conditions for success and to accelerate transformation.

Policy must be aligned with desired behavior and outcomes.
How Intel Helps: Policy

- **Global strategic alliances**
  - ACT21s (with Cisco, Microsoft)
  - UNESCO Partnership for Education
  - World Economic Forum (WEF) Global Education Initiative

- **Policy workshops/trainings with USAID and World Bank**
  - Achieve, Inc. (U.S.) – promoting college- and career-ready education

- **A Policy Framework and Development Guidebook**
Curriculum & Assessment

Curriculum standards must be adapted to ensure students learn the critical skills and knowledge to succeed in the global economy.

Establishing strong curriculum standards goes hand-in-hand with ensuring education systems have robust assessment approaches that measure students' knowledge and skills in each content domain.
Curriculum Standards & Assessment
10 Attributes of a 21st Century Learning Environment

1. Student centered systems
2. Clear standards and objectives
3. Robust formative and summative assessment systems
4. Continuous feedback improving students’ learning
5. Support for 21st century skills
6. Inquiry-based learning approaches
7. Personalized learning
8. Digital media curriculum resources
9. Advanced open-ended learning tools
10. Online Managed Learning and Assessment Systems
How Intel Helps: Curriculum & Assessment

• Cisco, Intel, Microsoft assessment alliance
• UNESCO ICT-Competency Standards for Teachers
• Intl. Society for Technology in Education (ISTE)
• London Grid for Learning
• skool™ Learning Technology
Professional Development

Professional development and teacher readiness is a critical factor for achieving successful implementation and results. Teacher practice needs to change to support a more student-centered learning environment.

Teachers need tools and training to adjust their pedagogic approaches to take advantage of a transformed learning environment and available technology tools.
Importance of Professional Development

Quality Teachers = Quality Education

Professional development can make a difference:

*Sustained, targeted professional development of 30-100 hours over a period of 6 months to a year can yield gains of 21 percentile improvement for the average student.*

- Yoon, et al. (2007)
10 Attributes of a 21st Century Teacher

1. Creates a student centered classroom
2. Teaches to standards and objectives
3. Implements both formative and summative assessments
4. Utilizes continuous feedback to improve students’ learning
5. Develops student knowledge & 21st century skills
6. Employs inquiry-based learning approaches
7. Ensures personalized learning experiences
8. Integrates digital media curriculum resources and tools
9. Uses effective questions for deeper understanding
10. Deploys online Learning & Assessment Systems
How Intel Helps:
Professional Development

• **Intel® Teach**
  - Proven teacher development
  - 10 million teachers trained (2011)

• **Intel® Math**
  - Professional Development Course for US K8 teachers

• **Educator Academy**
  - Conference for global education leaders to share learnings and network
Information Communications Technology (ICT)

ICT is an essential foundation of education transformation, providing the tools needed to enhance teaching and learning and support student-centered learning environments.

• Information access
• Creation, collaboration, and consumption
• 21st century skills development
ICT Integration Models
How Intel Helps: ICT

• Student and teacher PC access programs
  – Increasing access to powerful learning tools

• eLearning projects in over 70 countries

• ICT for Education Program
  – 100,000 PCs donated worldwide
How Intel Helps: ICT

• Learning platforms for students, teachers, and administrators
  – Intel® Atom™ processor-based netbooks
  – Intel® Core™ processor-based laptops and desktops
  – Intel® Xeon™ processor-based servers
  – Intel® Learning Series

• Connectivity
  – Wi-Fi*, WiMax*, 3G, 4G, LTE

• Ecosystem relationships for integrated solutions
Research & Evaluation

Continuous improvement of education reform for sustainable education transformation.

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How Intel Helps: Research & Evaluation

• Intel provides technology, ethnographic and education research
• Support for research and evaluation toolkits includes models, protocols and instruments
• Independent researchers monitor and evaluate impact of programs for continuous, targeted improvement
Research as Multi-Stakeholder Partnership

Mission:
Help transform teaching, learning and assessment of skills needed by students to succeed as citizens and workers in 21st century.

Team: > 260 researchers & practitioners

6 pilot countries: Australia, Finland, Portugal, Singapore, UK, USA

Endorsed by global assessment orgs: OECD, IEA, UNESCO

2010/11: Cognitive Labs, Trial, Pilots
2011/12: Scale & link to PISA, TIMSS

www.atc21s.org
Education Transformation: Global Momentum

Argentina

Australia Digital Ed

Brazil UCA Program

Macedonia

Malaysia Terengganu State

Portugal Magellan Program

Spain Escuela 2.0

Turkey Kocaeli State

USA - many States and Districts

Venezuela Canaima Project

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Summary

• Transforming education has many valuable social and economic benefits

• The Intel Education Transformation Model is a comprehensive approach that really works

• Intel supports education transformation worldwide with a powerful combination of programs, technology, and other resources

• Many countries are transforming education TODAY, with great results
Let’s work together!

Contact Intel to start working on an Education Transformation plan for your country.

http://www.intel.com/about/corporateresponsibility/education/transformation/index.htm
Thank You