
C·O·L
COMMONWEALTH of LEARNING
Learning for Development

The Tin Ka Ping Distinguished Lecture

Hong Kong, 28 September 2010

中南
明圓
CSL
Centre
安心保
銀行
maximizer

周生生
珠寶金行

The Association of Commonwealth Universities

The Open University


TANG CHI NGONG SCHOOL OF CHINESE
UNIVERSITY OF HONG KONG

Shirley J Grundy

The Tin Ka Ping Distinguished Lecture

Hong Kong, 28 September 2010

Technology in Education: Much Ado about Nothing?

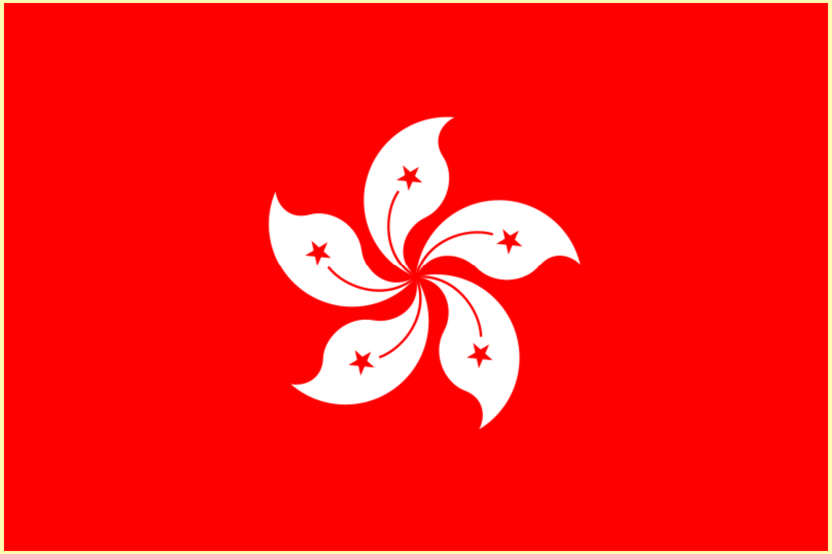
Sir John Daniel

Commonwealth of Learning

Text & slides at:

www.col.org/speeches

FOUR ISSUES



FOUR ISSUES

1. Can the use of ICTs in education can go beyond teaching children computer literacy to improving learning generally?




FOUR ISSUES

2. Can technology-based Open Schooling give 400 million out-of-school 12 to17 year olds access to secondary education?

FOUR ISSUES

3. Can distance learning swing the focus of teacher education from theoretical pre-service study to in-service courses that really improve teaching skills?

FOUR ISSUES

4. Are Open Educational Resources just another fad or could they revolutionize knowledge sharing globally?


The Economist
Jacob Zuma's two bad calls
Will the Ivy League become GM?
How to conserve Africa's animals
Can the laws of physics change?
Tony Blair's strange memoirs
SEPTEMBER 4TH–10TH 2010
Economist.com
The web's new walls
How the internet's openness is under threat
£4.00

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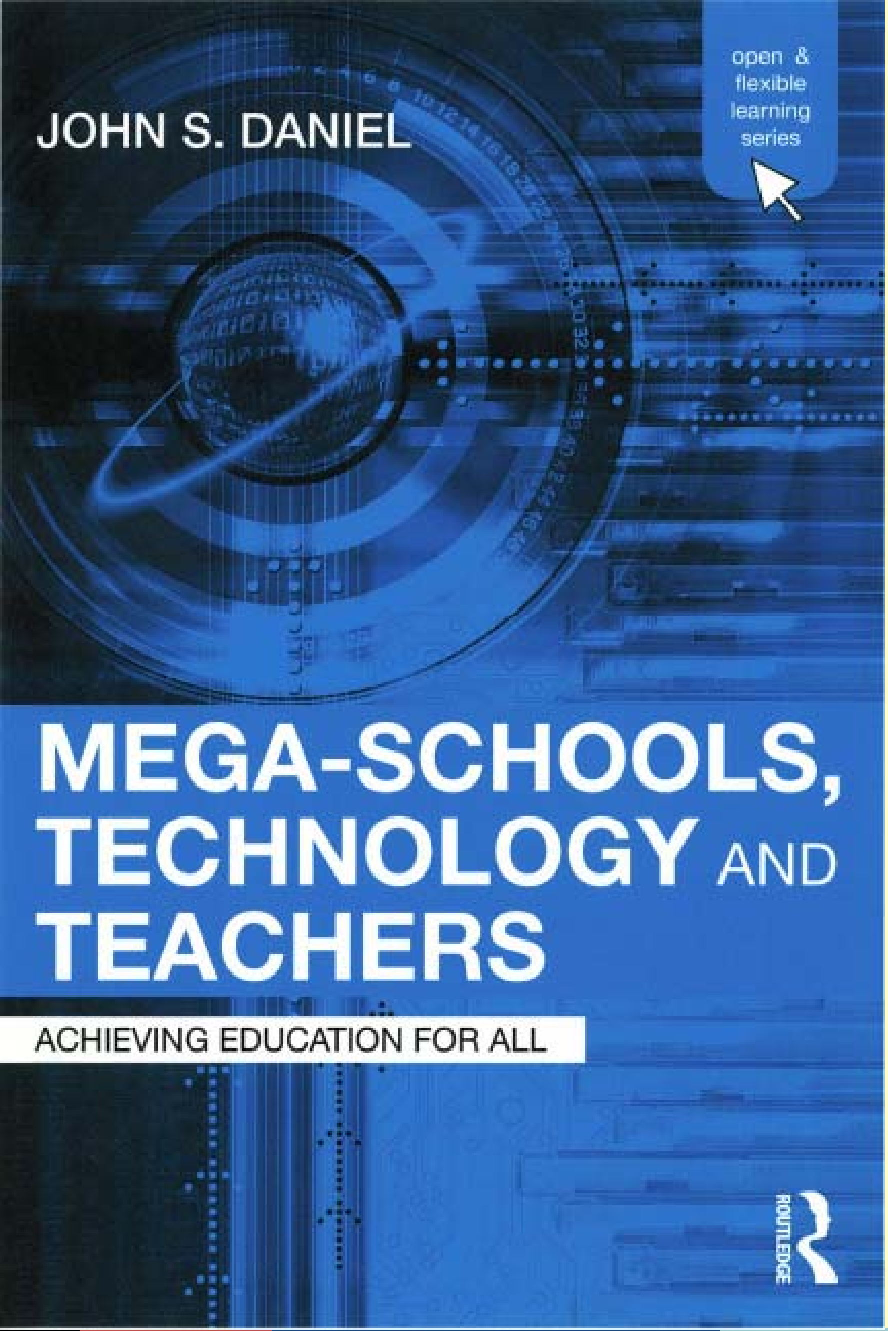


Mega-Schools, Technology and Teachers: Achieving Education for All

by

John S. Daniel

Routledge 2010

SURVEY OF ICT AND EDUCATION IN AFRICA

A Summary Report
Based on 53 Country Surveys

Algeria • Angola • Benin • Botswana
Burkina Faso • Burundi • Cameroon
Cape Verde • Central African Republic • Chad
Comoros • Congo • Côte d'Ivoire • Djibouti
Democratic Republic of the Congo • Egypt
Equatorial Guinea • Eritrea • Ethiopia • Gabon
The Gambia • Ghana • Guinea • Guinea-Bissau
Kenya • Lesotho • Liberia • Libya • Madagascar
Malawi • Mali • Mauritania • Mauritius •Morocco
Mozambique • Namibia • Niger • Nigeria
Rwanda • Sao Tome and Principe • Senegal
Seychelles • Sierra Leone • Somalia
South Africa • Sudan • Swaziland • Tanzania
Togo • Tunisia • Uganda • Zambia • Zimbabwe

A DRAFT *info*DEV PUBLICATION PREPARED BY:

Glen Farrell
The Commonwealth of Learning

Shafika Isaacs
Mindset Network

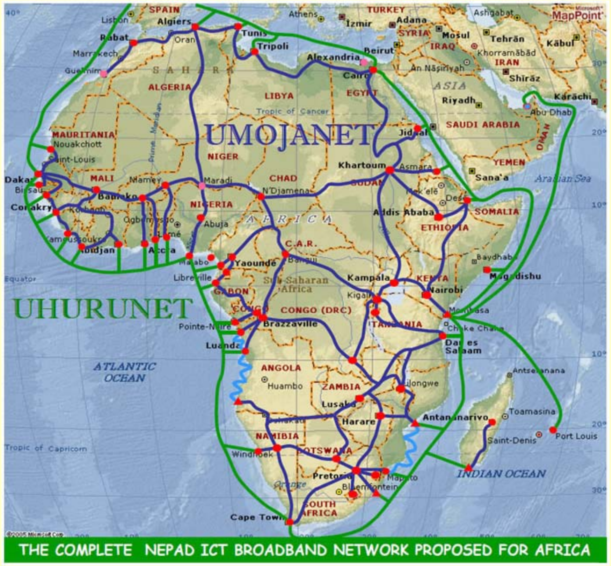
ICT AND EDUCATION SERIES

SERIES EDITOR:
Michael Trucano

Information for Development Program

infoDev
www.infoDev.org

ICTs in Africa

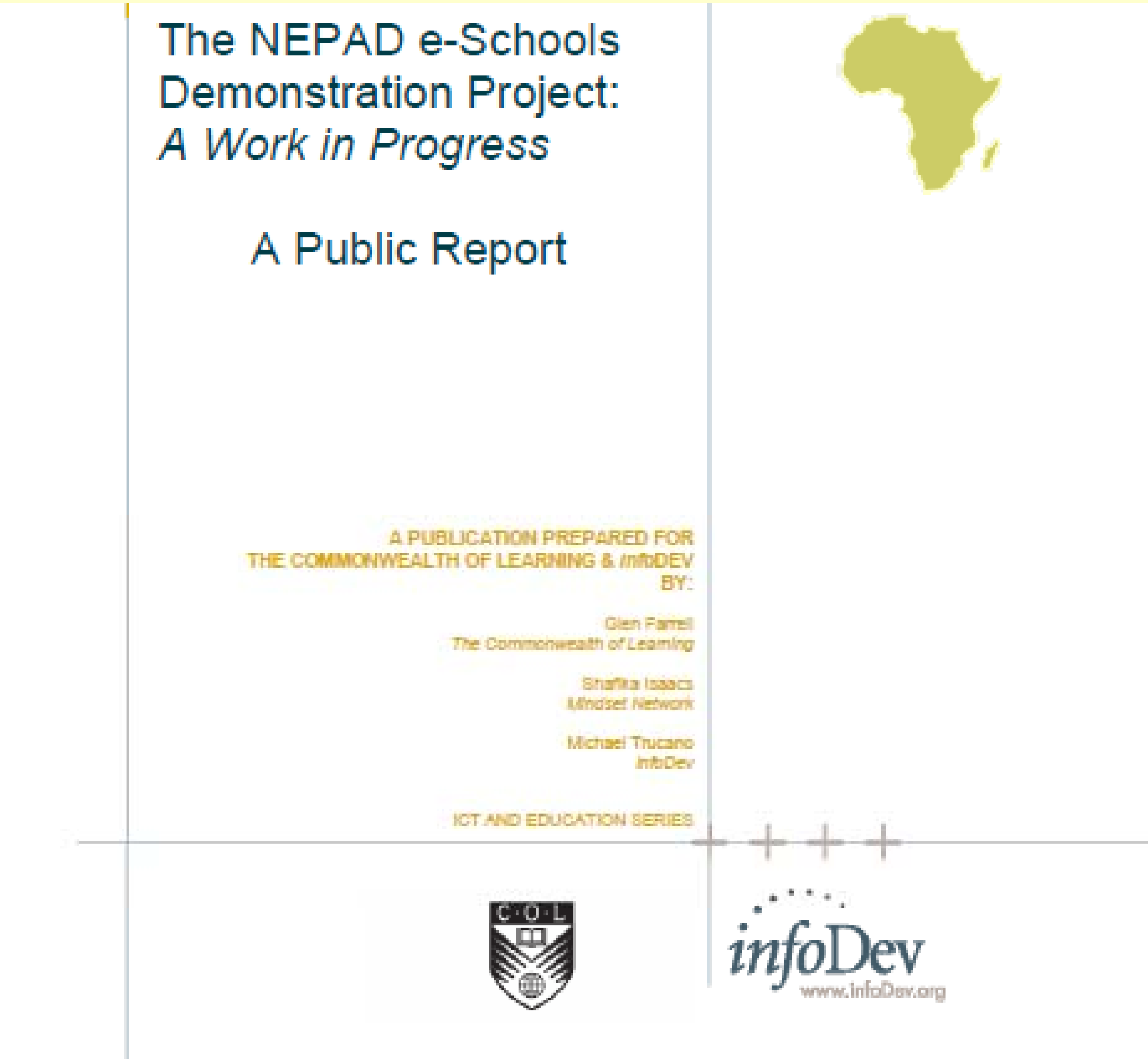


NEPAD e-AFRICA COMMISSION
Commission e-Afrique du NEPAD

- Experimentation to Integration
- ICTs in Education – great progress
- Emphasis on secondary school access
- Not just a subject to be taught

e-Africa Commission
Commission e-Afrique
NEPAD

eSchool



The NEPAD e-Schools Demonstration Project:
A Work in Progress

A Public Report

A PUBLICATION PREPARED FOR
THE COMMONWEALTH OF LEARNING & *info*DEV
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ICT AND EDUCATION SERIES

C·O·L

infoDev
www.infoDev.org

Demonstration:
6 diverse schools in 16 countries…

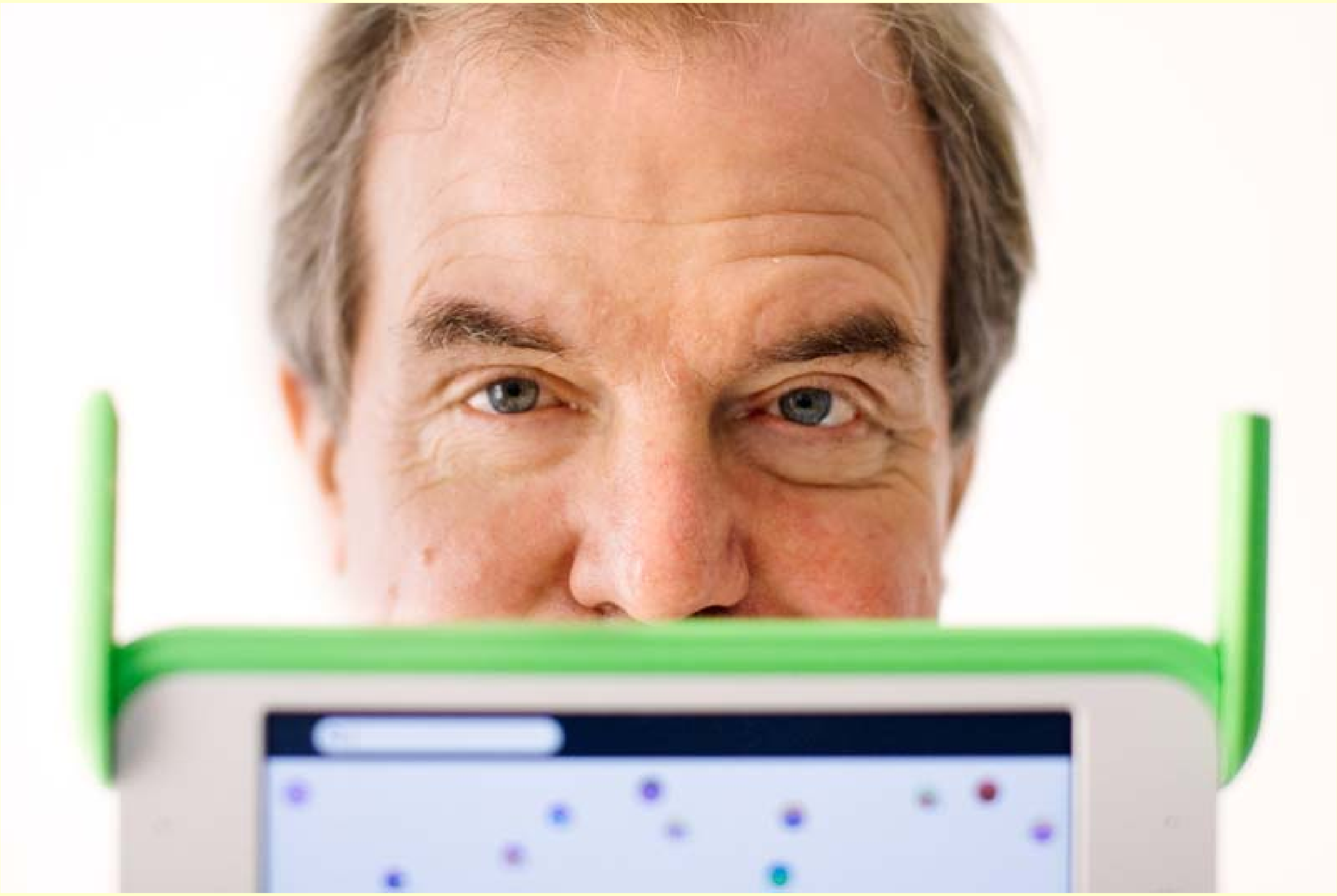
Aim:
550,000 African schools on Internet by 2020

Lessons Learned

- Little use for pedagogy but IT skills improved
- Big impact on governments and local communities
- No cost-benefit analysis

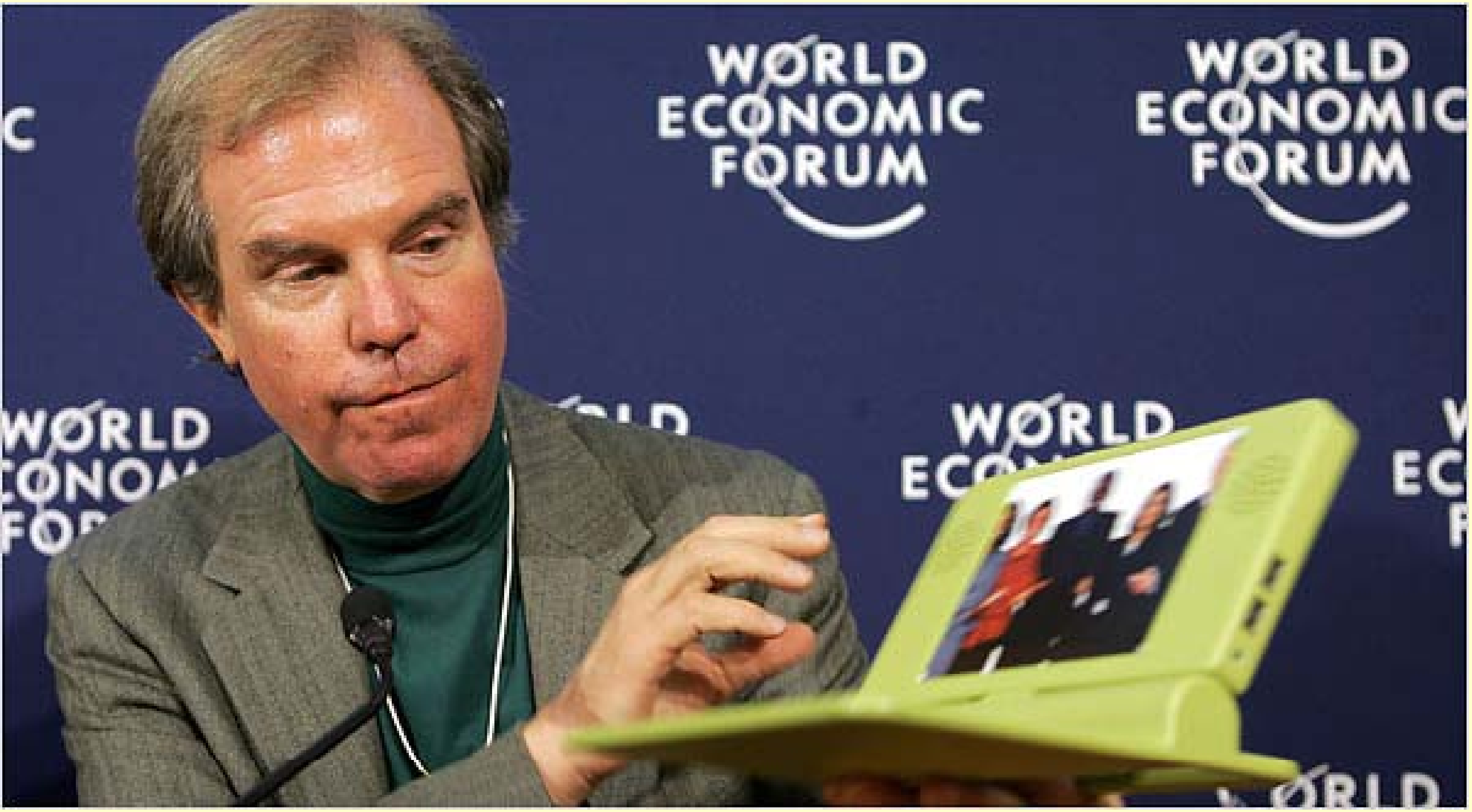
BUT

No roll-out of wider project so far!!



"To 'learn learning' through a methodology called "constructivism" in which the learners construct new knowledge from their experiences" *Nicholas Negroponte*

The OLPC XO-1 laptop



Launch at Davos 2005

Failure to achieve potential:

1. Goal: 150 million annually by 2007
   Reality: ~ 1 million distributed

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   from learning to selling

Failure to achieve potential:

1. Goal: 150 million annually by 2007
   Reality: ~ 1 million distributed

2. Change of discourse:
   from learning to selling

3. Little monitoring and evaluation

FOUR ISSUES

1. Can the use of ICTs in education can go beyond teaching children computer literacy to improving learning generally?

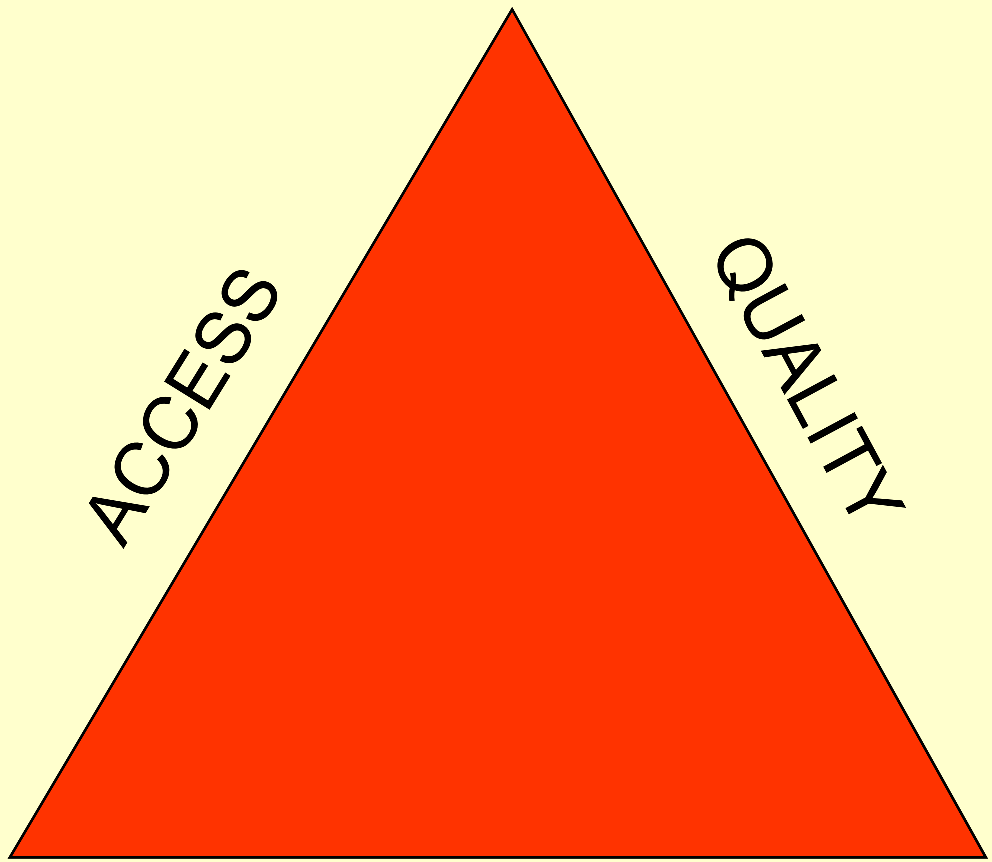
‘A disconnection is apparent between the rationales most often presented to advance the use of ICT in education (to introduce new teaching and learning practices and to foster “21st century thinking and learning skills”), and their actual implementation (predominantly for use in computer literacy and dissemination of learning materials)’.

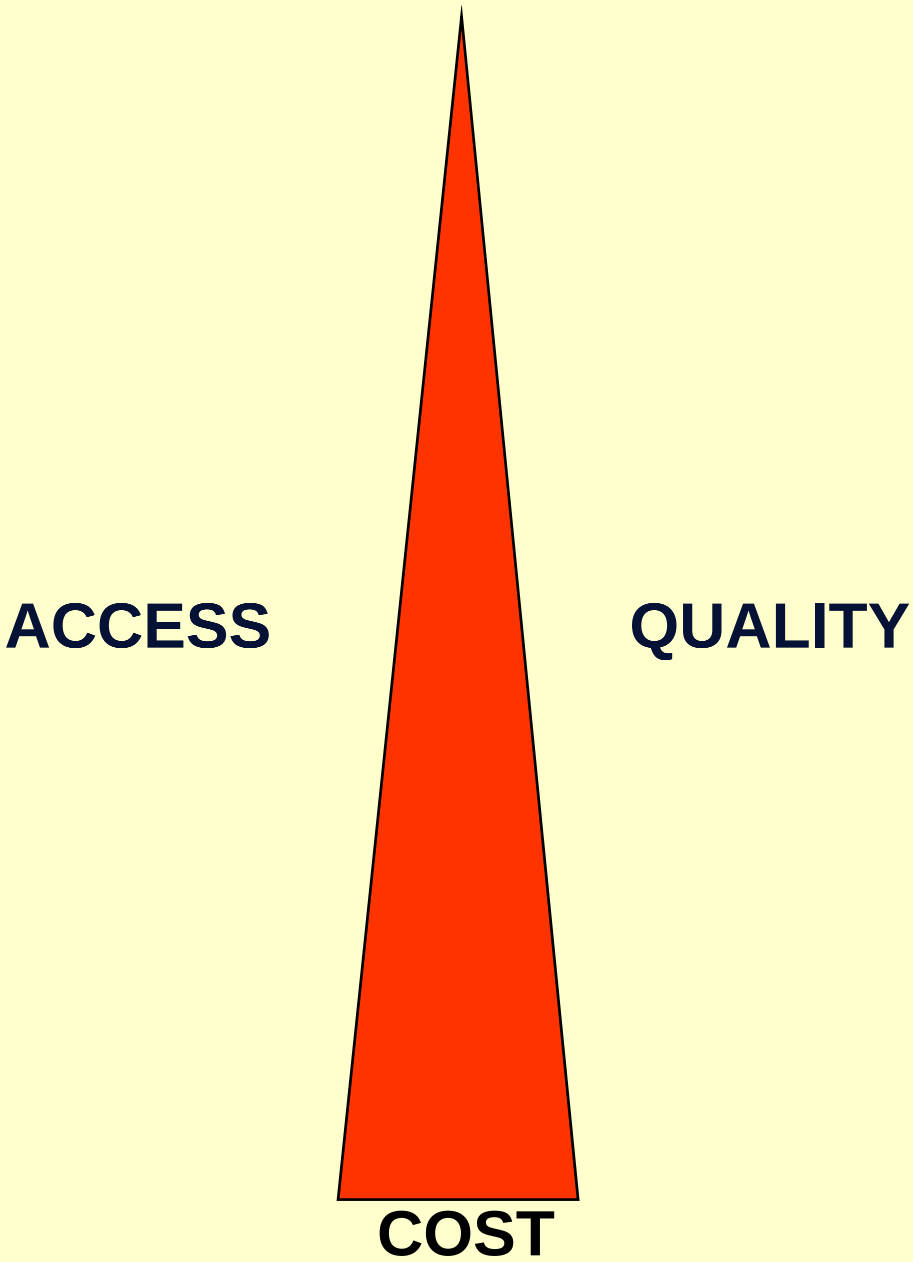
Mike Trucano, World Bank

The Central Challenge

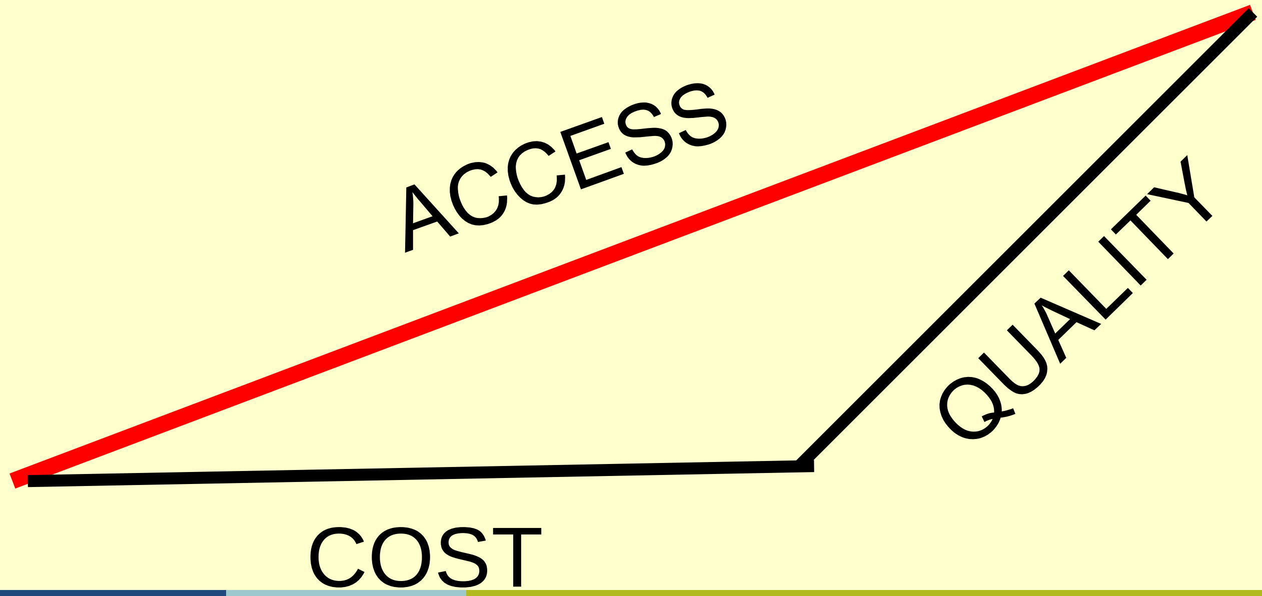
- ACCESS (wider)
- QUALITY (higher)
- COST (lower)

The Iron Triangle

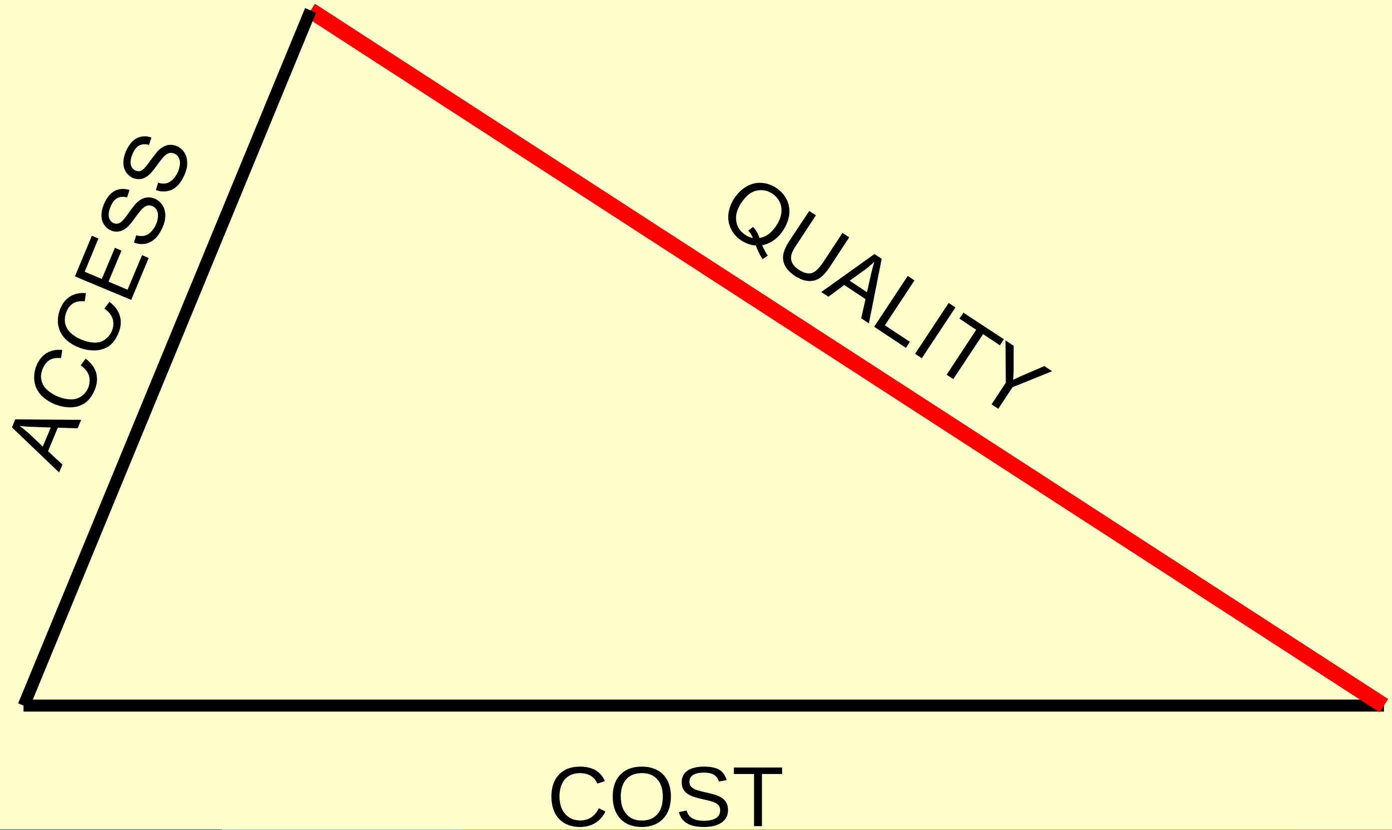



ACCESS
QUALITY
COST

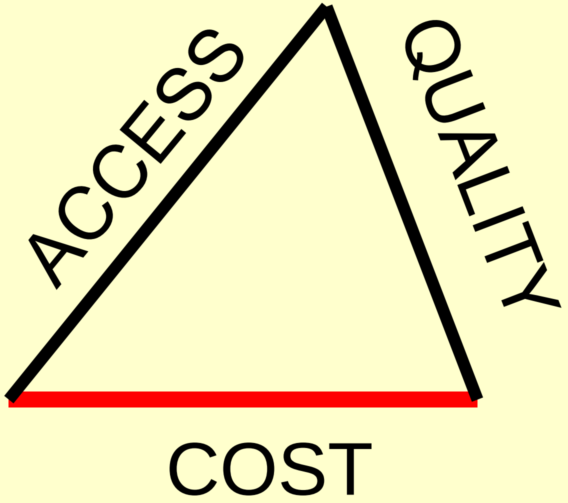
The Iron Triangle



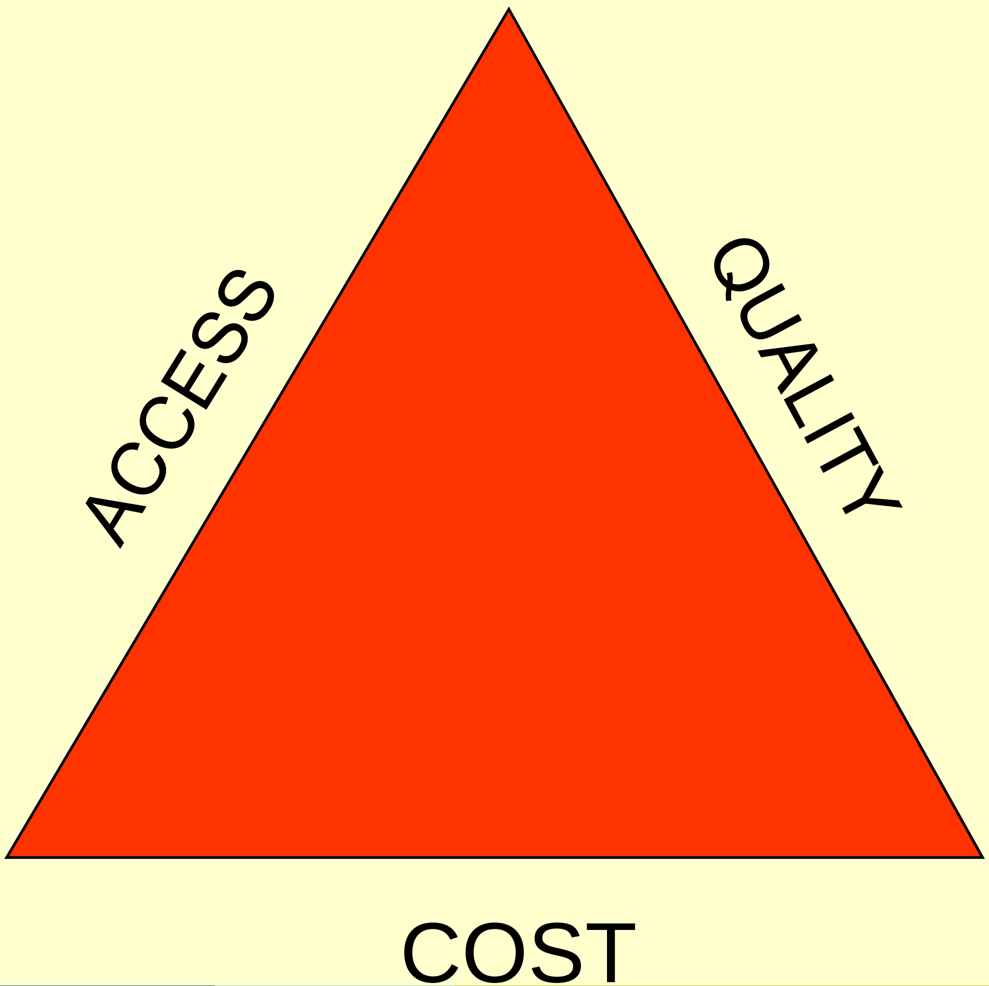
The <u>Iron</u> Triangle

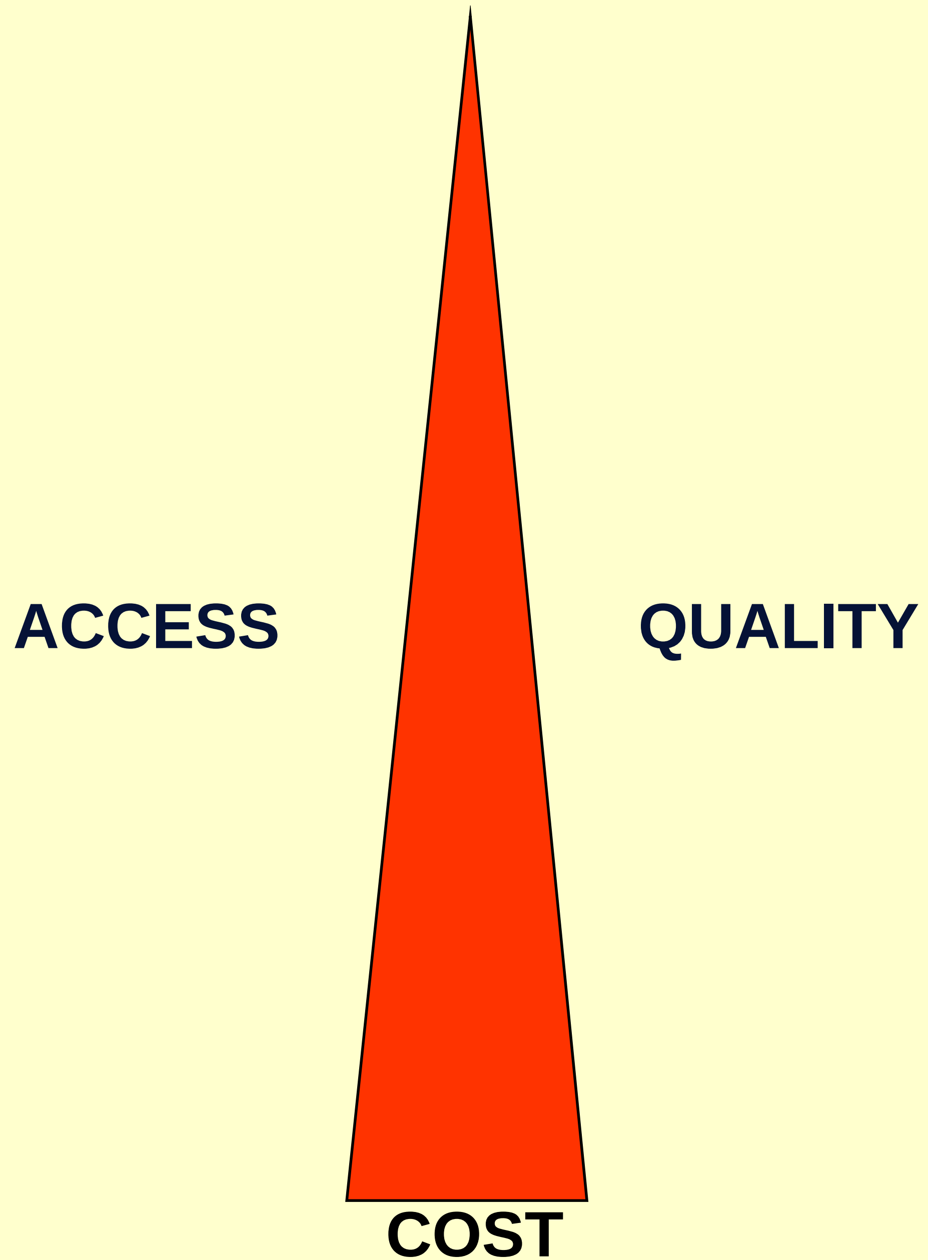


The Iron Triangle



“an insidious link between quality and exclusivity”




ACCESS
QUALITY
COST

The Technology Revolution

- ACCESS (wider)
- QUALITY (higher)
- COST (lower)

ALL AT THE SAME TIME!

Principles of Technology

- Division of labour
- Specialisation
- Economies of scale
- Machines and ICTs

Adam Smith
1723-1790

FOUR ISSUES

2. Can technology-based Open Schooling give 400 million out-of-school 12 to17 year olds access to secondary education?

The Secondary Surge

400 million 12-17 year olds NOT in school

Open Schooling:

Aim:
To expand secondary schooling because 400 million children between 12 and 17 are not in school

Frances Ferreira (Namibia)

Professor
Keith Lewin

If the unit cost of

SECONDARY

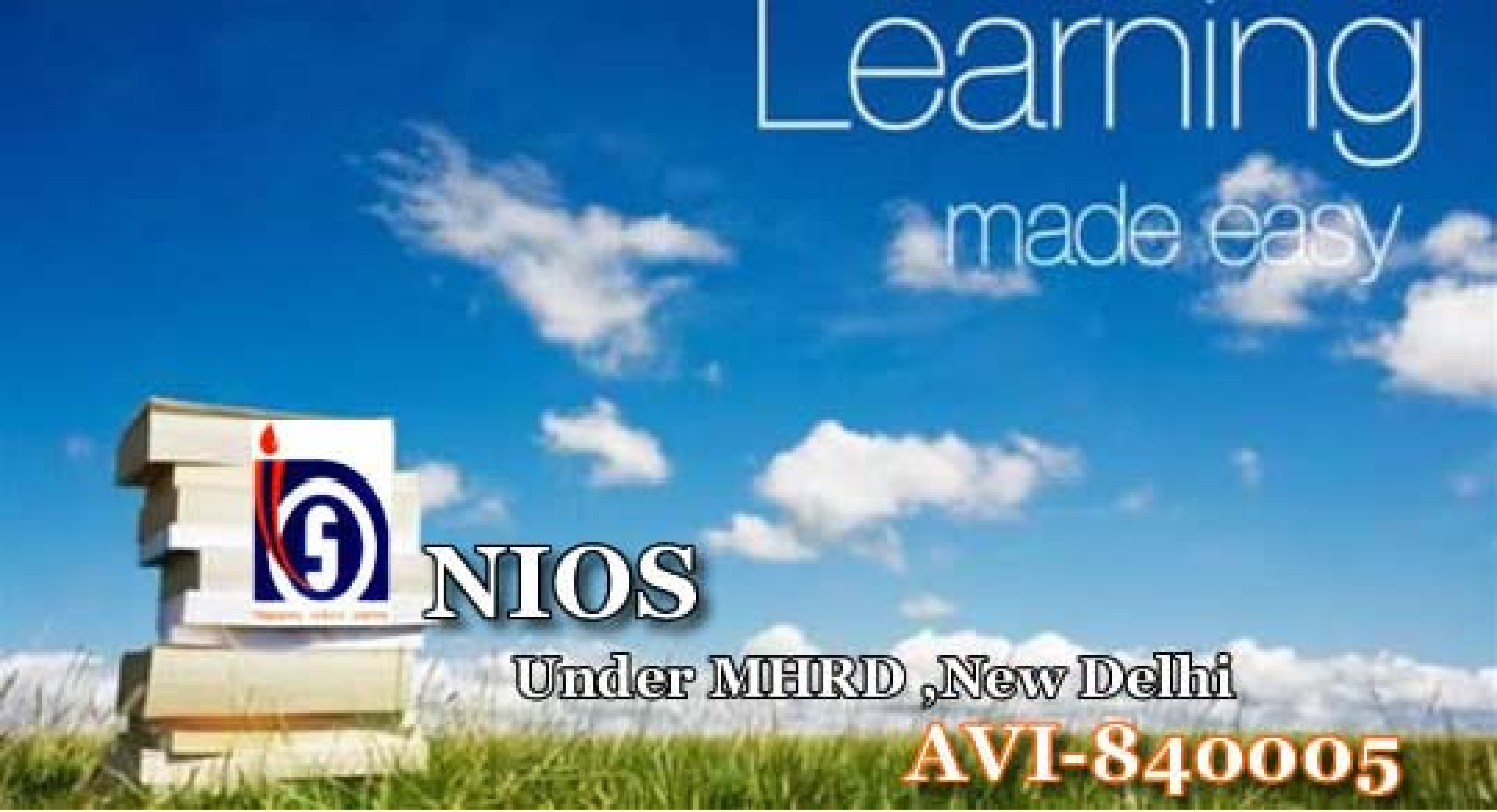
is more than double

PRIMARY

A country will NEVER achieve

UNIVERSAL SECONDARY EDUCATION

The education of girls may also be the most powerful tool against climate change



National Institute for Open Schooling – India

400,000 new pupils annually

FOUR ISSUES

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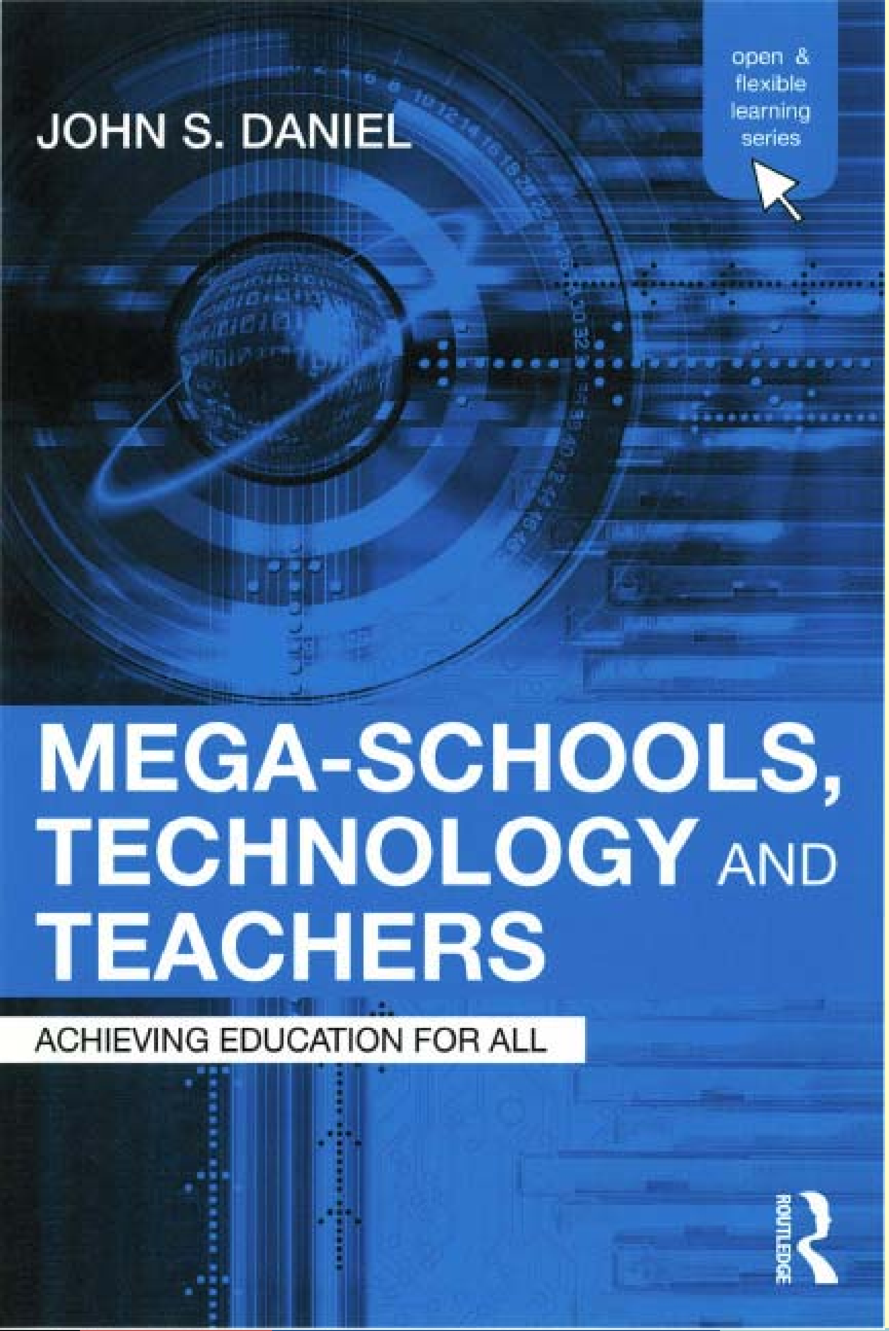

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EXPANDING TEACHER EDUCATION

"…recruiting and educating large numbers of teachers is a necessity for rich and poor countries alike…"

(30,000 untrained teachers in California)

EXPANDING TEACHER EDUCATION

Causes of the teacher shortage:

- Complete Universal Primary
- Expand Secondary
- Wave of retirements
- Deaths from AIDS

EXPANDING TEACHER EDUCATION

- 10 million additional teachers required by 2015 (UNESCO)
- Current global teaching force = 75 million

TEACHER EDUCATION

Two issues:

- How to expand supply?
- What kind of training?

TEACHER RECRUITMENT

A three-way correlation:

- Status of profession
- Ease of recruitment
- Pupil performance

Top average scores for mathematics

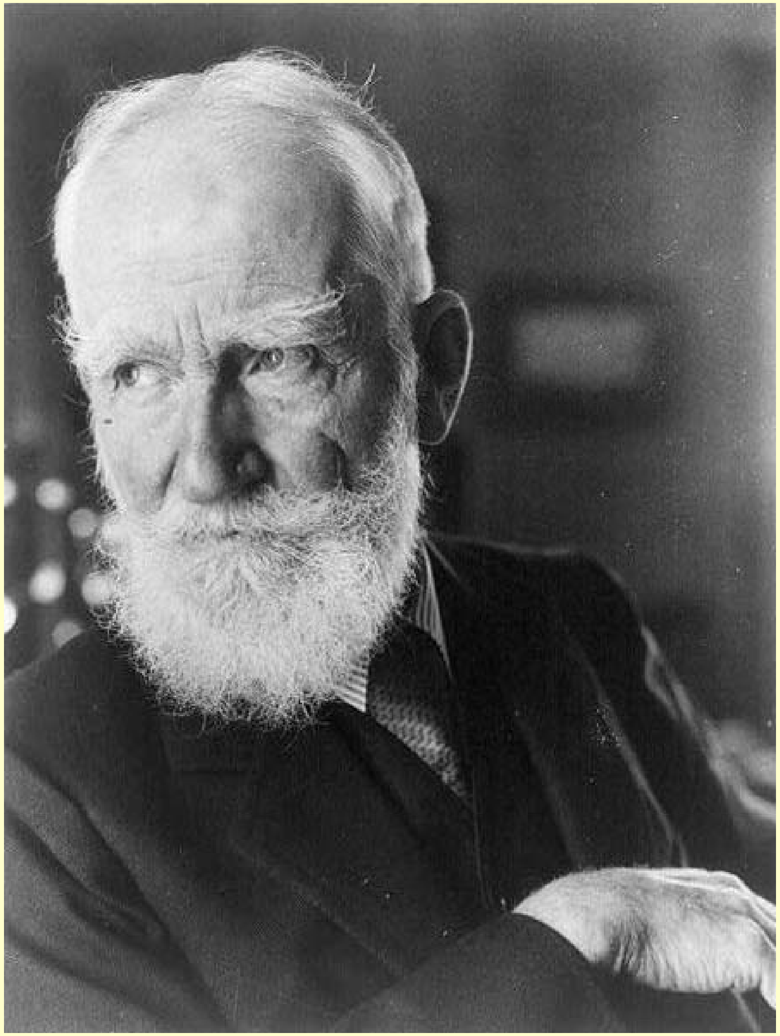
Chinese Taipei	549
Finland	548
Hong Kong China	547
Korea	547
Quebec	540
Netherlands	531
Alberta	530
Canada (overall)	527
Ontario	526
Macau China	525
British Columbia	523
Japan	523
New Zealand	523

TEACHER RECRUITMENT

Status of profession

Shared blame:

- Teachers: absenteeism, etc.
- Governments: conditions
  (poor salaries, corruption)



George Bernard Shaw

"Those who can do; those who can't teach"

The UK's Secret Intelligence Service, MI5, advertised for teachers last year, seeking their 'relationship-building skills'

The combination of the low status of the profession and the attractiveness of teachers' skills in the wider labour market no doubt explains why 50% of teachers in the US leave the profession within five years of completing their training “sending people into the classroom with minimal initial training can be a good strategy for our times if they are then provided with appropriate on-the-job training”

Teach First
LEARNING TO LEAD

Teach First
LEARNING TO LEAD

Teaching:

“tough and demanding”

Postgraduate Course:

“too slow”

“too theoretical”

“too boring”

Teacher education needs radical revision!

although

“more policy attention was given to teacher education in the 1990s than in all the hundreds of years of history that preceded it. And most of the activity has focused around quality”

Moon, 2008

1990s policy irrelevant because:

- it focused on long programmes of pre-service training

whereas

teachers need continuous professional learning

1990s policy irrelevant because:

- upgrading of teachers without reference to school needs

so

it encourages teachers to move jobs instead of becoming more effective

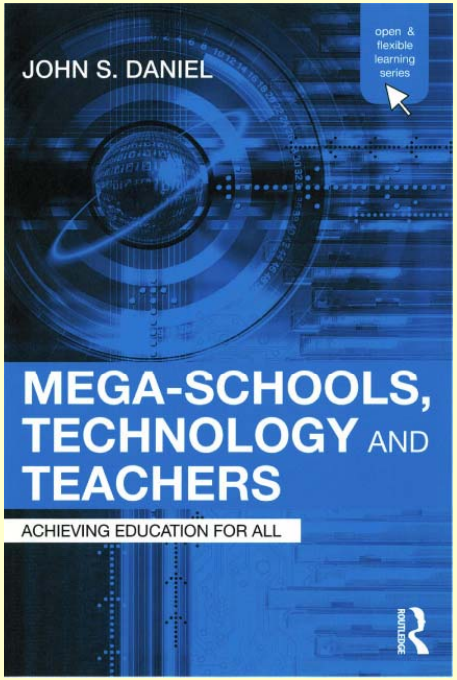
1990s policy irrelevant because:

- teacher education ignored the development of distance learning enhanced by ICTs and Open Educational Resources

although

distance learning is the only way to conduct classroom-focused continuous professional development

“The locus of continuous professional learning must be the school and its focus must be the classroom. This has always been the strength of distance learning systems for teacher education”



Profiles of Eight Distance Learning Teacher Education programmes

PERMAMA – Canada/Quebec 1970s

Top average scores for mathematics

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Hong Kong China	547
Korea	547
Quebec	**540**
Netherlands	531
Alberta	530
Canada (overall)	**527**
Ontario	526
Macau China	525
British Columbia	523
Japan	523
New Zealand	523

CalStateTEACH

A California State University Multiple Subject Preparation Program for Elementary School Teachers

CalStateTEACH is a non-traditional program that offers both a student teaching and an intern program for qualified candidates interested in earning their credential without attending traditional college classes. Instead, the curriculum is delivered online.

The Open University

Contributions of ICTs

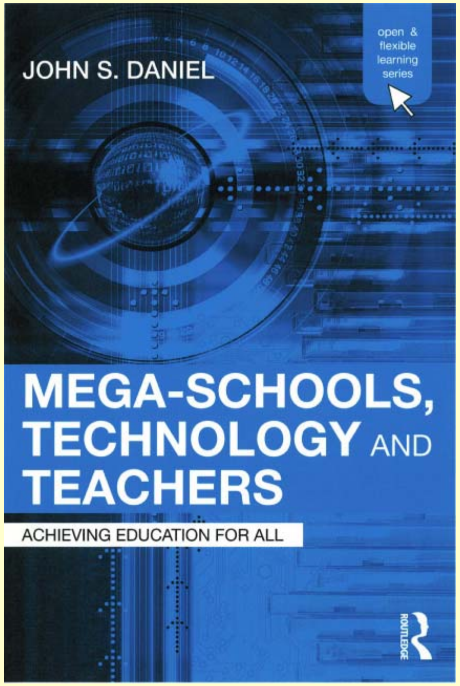
- Creation of communities of practice through computer conferencing:

  novices can gain experience through contact with veteran practitioners.

Contributions of ICTs

- Open Educational Resources

  an Internet powered worldwide community effort to create an education commons.



Profiles of Eight Distance Learning Teacher Education programmes

TESSA

Teacher Education in Sub-Saharan Africa

TESSA

Teacher Education in Sub-Saharan Africa

a consortium of 13 African universities, the UK Open University and five international organisations. It works across nine African countries – with more participating informally – by creating teacher education materials in Arabic, English, French and Kiswahili.

TESSA

Teacher Education in Sub-Saharan Africa

In 2009 nearly half a million African teachers worked with materials and resources produced through the TESSA community. Since these are classroom-based in-service materials they have a direct impact on millions of children through their use in the classroom

OERs can be adapted to local needs:

NTI

NATIONAL TEACHERS' INSTITUTE, KADUNA - NIGERIA

University of Fort Hare

CONCLUSION

The locus of continuous professional learning must be the school and its focus must be the classroom

CONCLUSION

Teacher education institutions will have to give themselves the capability to offer distance learning programmes in order to reach teachers in their schools.

Today information and communications technology can make distance learning a richer experience than learning in a university classroom.

FOUR ISSUES

4. Are Open Educational Resources just another fad or could they revolutionize knowledge sharing globally?

Open Educational Resources

ARE:

Consistent with our best academic traditions

ARE NOT:

A fancy form of plagiarism

Open Educational Resources

CONTRAST HOW ACADEMICS:

- Conduct research
- Prepare for teaching

Open Educational Resources

CONTRAST HOW ACADEMICS:

- Conduct research = PUBLIC
- Prepare for teaching = PRIVATE

Scholarship Reconsidered

"Teaching is the highest form of understanding"

Aristotle

"Knowing and learning are communal acts"

Scholarship Reconsidered

Scholarship of:

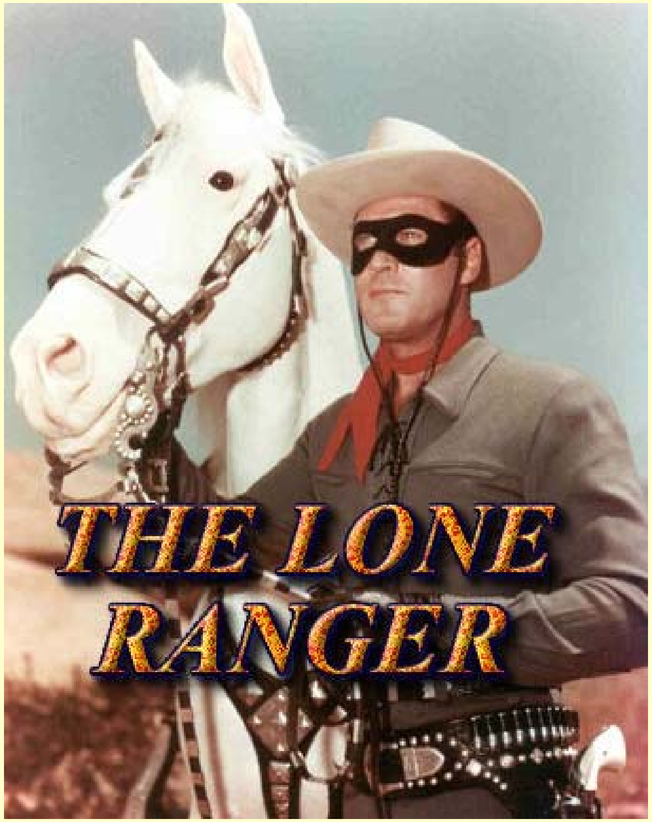
- Discovery (research)
- Integration (bridges between disciplines)
- Application (solve real problems)
- Teaching (transform & extend knowledge)

Scholarship Reconsidered

"Teaching is the highest form of understanding"

Aristotle

"Knowing and learning are communal acts"



The "Lone-Ranger" approach to eLearning

(Professor Tony Bates)

Teachers working as

a community

The Virtual University for Small States of the Commonwealth

Obstacles to sharing:

- Not invented here or by me!

- Adaptation tiresome

- Intellectual property

Obstacles to sharing:

- Not invented here or by me!
- ~~Adaptation tiresome~~
- ~~Intellectual property~~

Open Educational Resources

Do they encourage neo-colonialism?

TESSA

Teacher Education in Sub-Saharan Africa

- 13 African universities developing OERs for teacher education
- Used by 500,000 teachers in 2009
- Available in Arabic, English, French and Kiswahili

FOUR ISSUES

4. Are Open Educational Resources just another fad or could they revolutionize knowledge sharing globally?

United Nations
Educational, Scientific and
Cultural Organization

Taking OERS beyond the OER Community: Capacity Building for Developing Countries

Open Educational Resources can:

- Widen access
- Improve quality
- Lower costs

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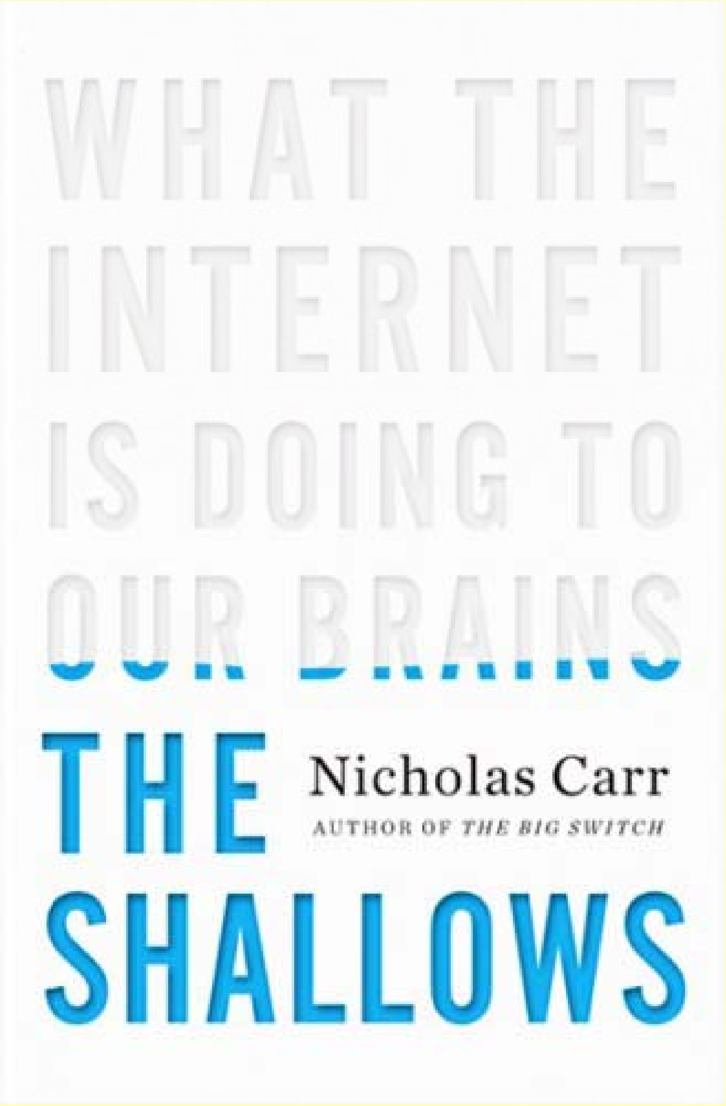
THANK YOU


WHAT THE INTERNET IS DOING TO OUR BRAINS
THE SHALLOWS
Nicholas Carr
AUTHOR OF THE BIG SWITCH