



**CfBT Flexi-schools Conference, London**  
**17 March 2011**

**Open Schooling & Teacher Education in a  
21<sup>st</sup> Century Educational Ecosystem**

*Sir John Daniel*  
*Commonwealth of Learning*



1990

The World Conference on  
Education for All

Jomtien, Thailand

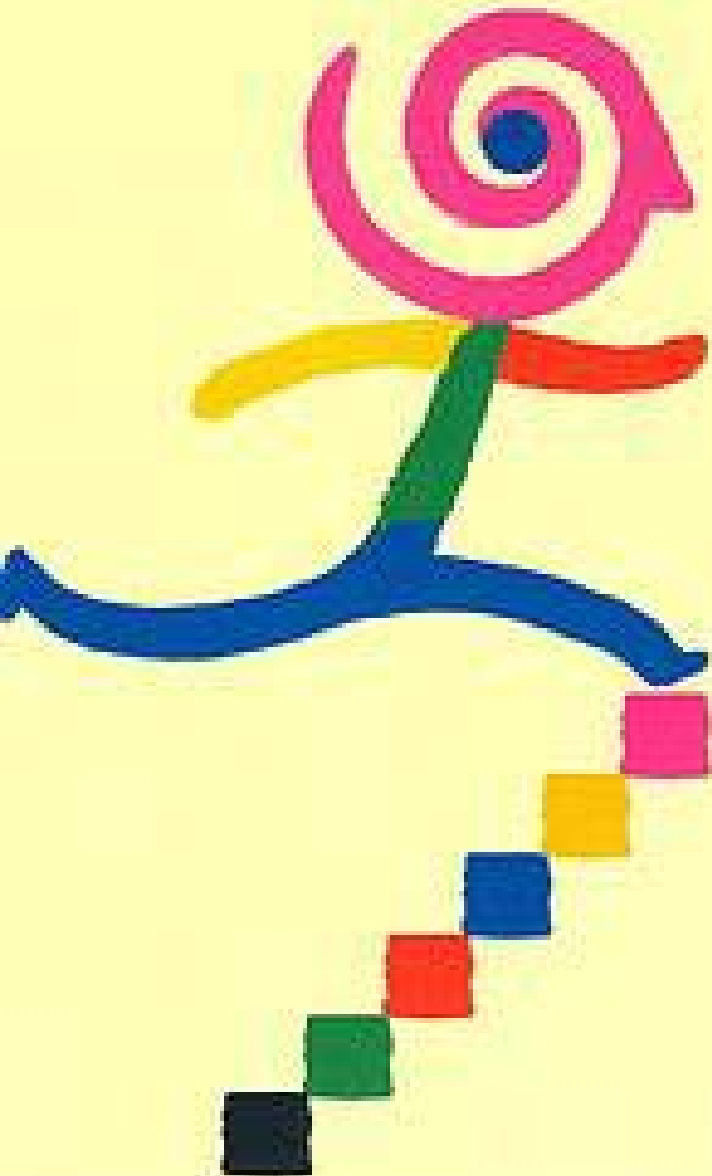
# Jomtien = a failure?

1990 – 100m (6 to 11) out of school

2000 – 125m (6 to 11) out of school

# Education for All by 2015

An international commitment



## The Dakar World Forum on EFA 2000

# Jomtien = a failure?

1990 – 100m (6 to 11) out of school

2000 – 125m (6 to 11) out of school

# Dakar = more progress

2008 – 67m (6 to 11) out of school

2015 – 72m (6 to 11) out of school

JOHN S. DANIEL

open &  
flexible  
learning  
series



# MEGA-SCHOOLS, TECHNOLOGY AND TEACHERS

ACHIEVING EDUCATION FOR ALL

ROUTLEDGE





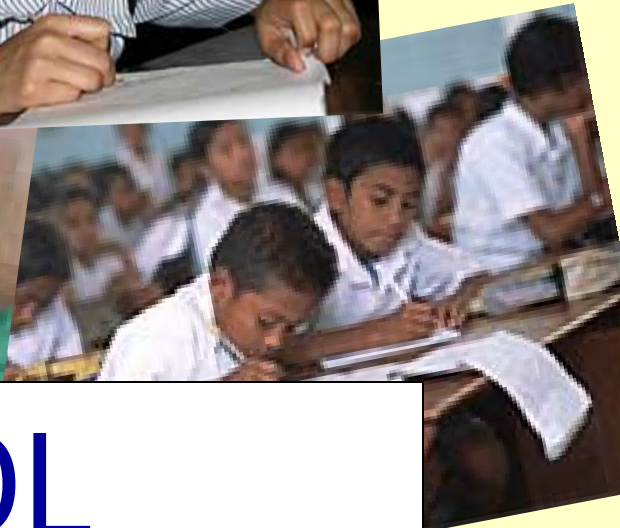
Universal Primary Education

SUCCESSSES

&

FAILURES

# SUCCESS



# IN SCHOOL

# SUCCESS

In sum, there were 40 million more children in school in developing countries in 2006 than in 1999

# FAILURE



NOT IN SCHOOL

# FAILURE

On present trends there will still be some 72 million of children out of primary school by 2015

# CHALLENGES

Of success:

'The success of the campaign for Universal Primary Education is creating a surge of children towards secondary schooling and there is nowhere for most of them to go'

# CHALLENGES

Of failure:

Getting the remaining 75 million children into primary school will require various strategies but, above all, the employment of more teachers.

# Surging to Secondary



200 to 400 million youth

# Surging to Secondary



200 to 400 million youth

Since the Industrial Revolution...

7 x more people

7 x the impact each

$7 \times 7 = 50$  x total impact

So... curb population growth



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

# Key points:

- Expand secondary

# Key points:

- Expand secondary
- Secondary is inefficient



Professor  
Keith Lewin

If the unit cost of  
**SECONDARY**  
is more than double  
**PRIMARY**

A country will **NEVER** achieve

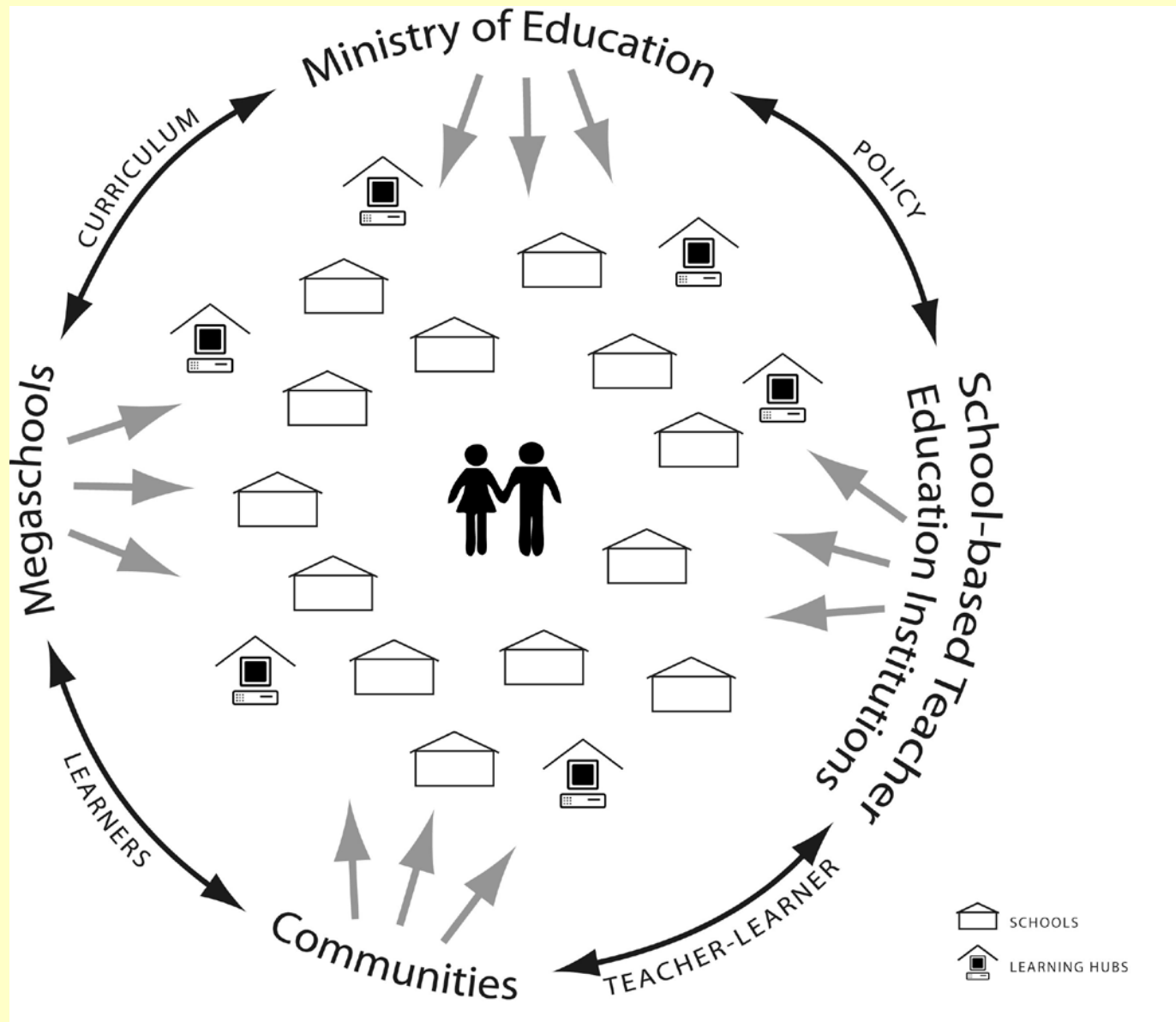
**UNIVERSAL SECONDARY  
EDUCATION**

# Key points:

- Expand secondary
- Secondary is inefficient
- Expand Open Schooling

# Key points:

- Expand secondary
- Secondary is inefficient
- Expand Open Schooling
- Educational ecosystem



# 21<sup>st</sup> Century Educational Ecosystem

Conventional schools  
cannot cope!

ADD

OPEN SCHOOLING

Develop and expand

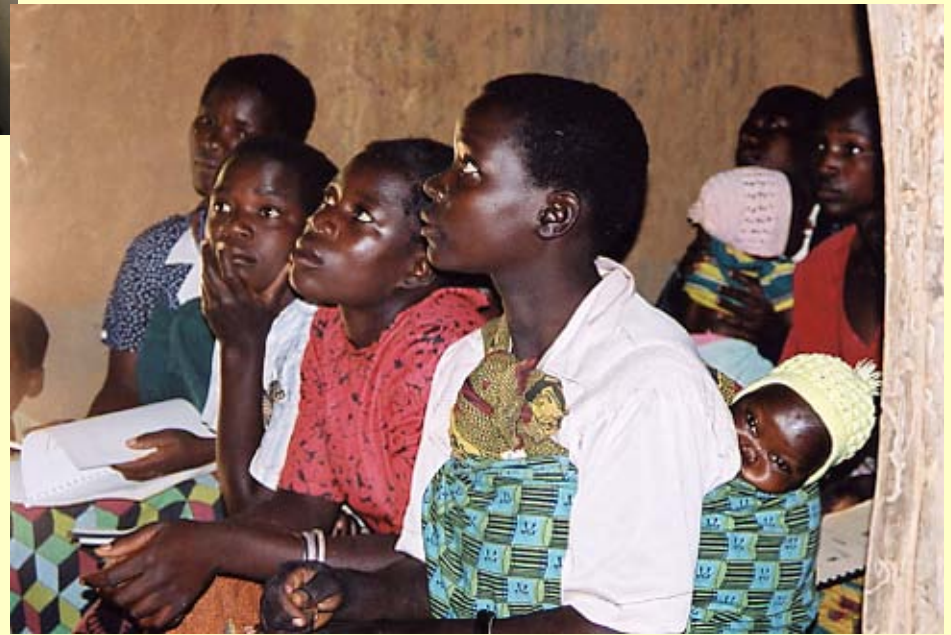
**OPEN SCHOOLING**

and

**INTEGRATE IT**

with other approaches

# Blur the unhelpful distinction



Between formal and non-formal education

# Build a bridge between knowledge acquisition



# and skills development

# Reduce inequalities



# **OPEN SCHOOLING**

Is less expensive than

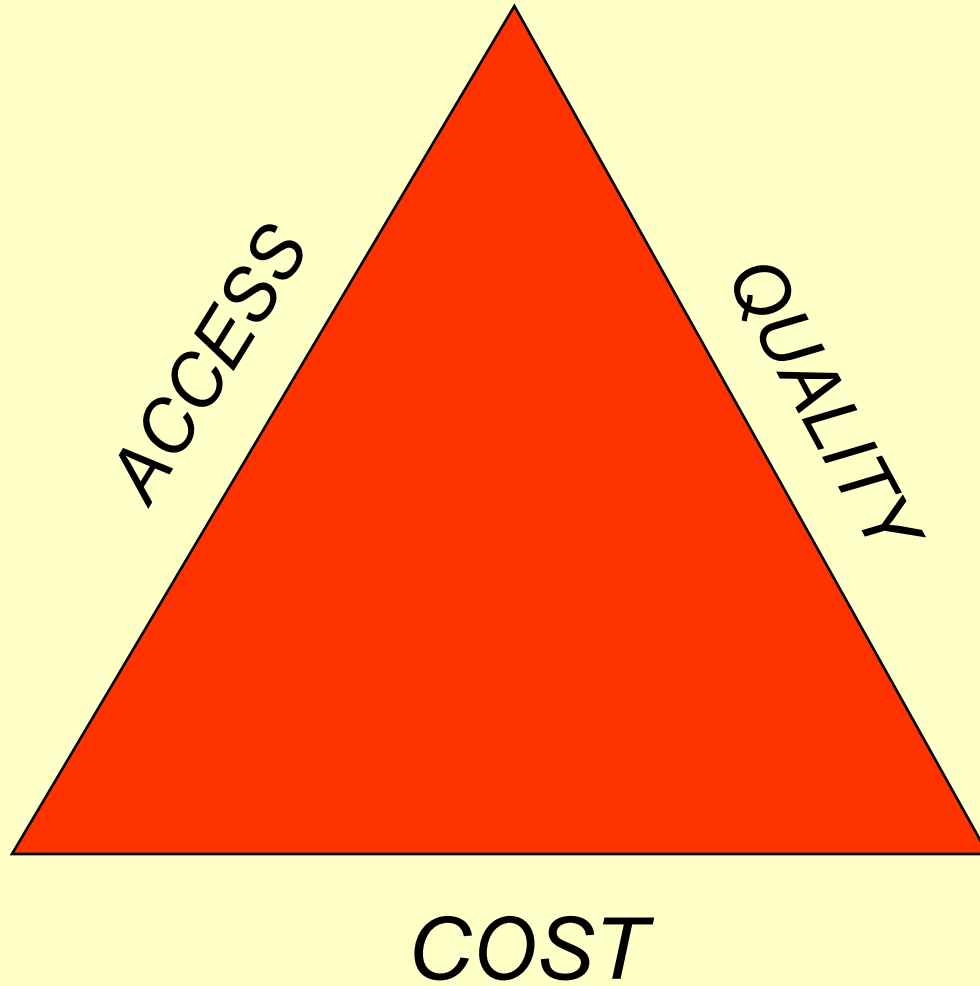
**CONVENTIONAL SCHOOLING**  
in most countries

and the difference in cost

**IS INCREASING!**

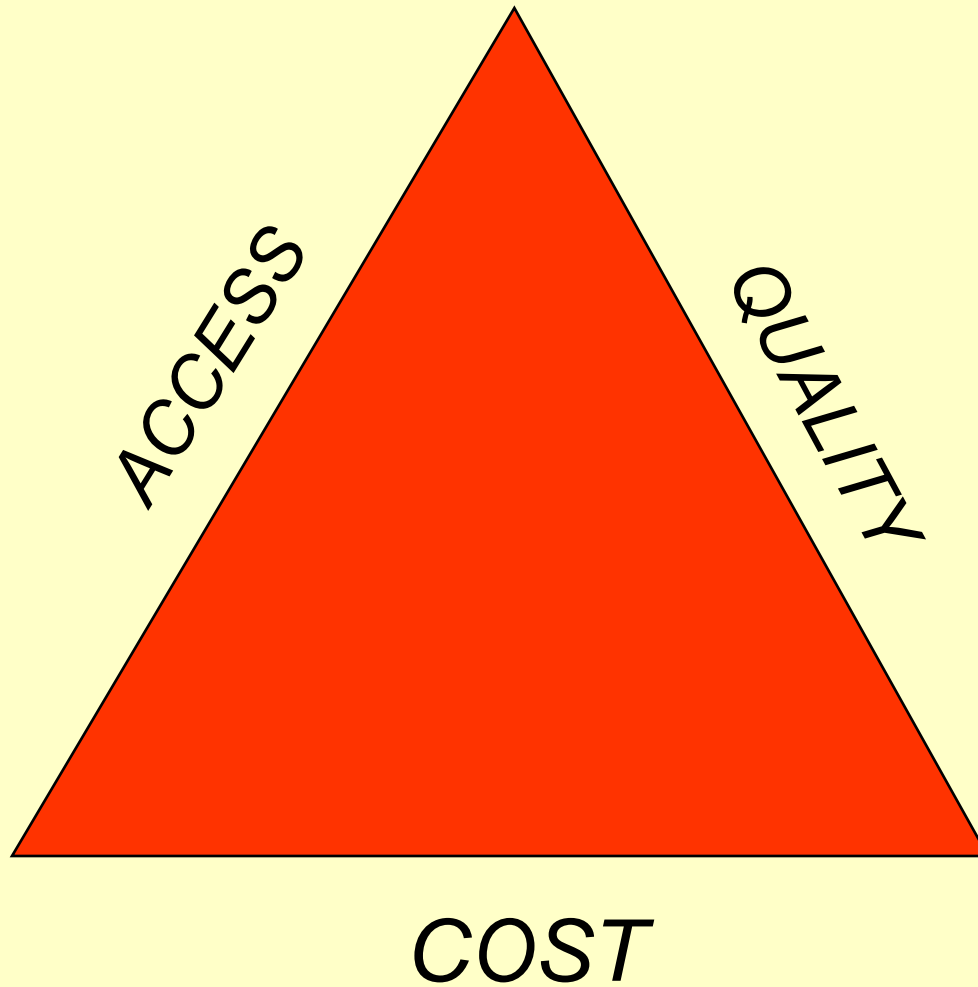
# *The Central Challenge*

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

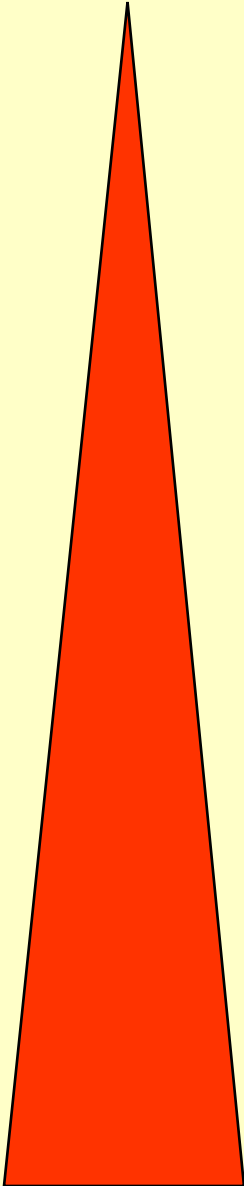




# ***The Iron Triangle***



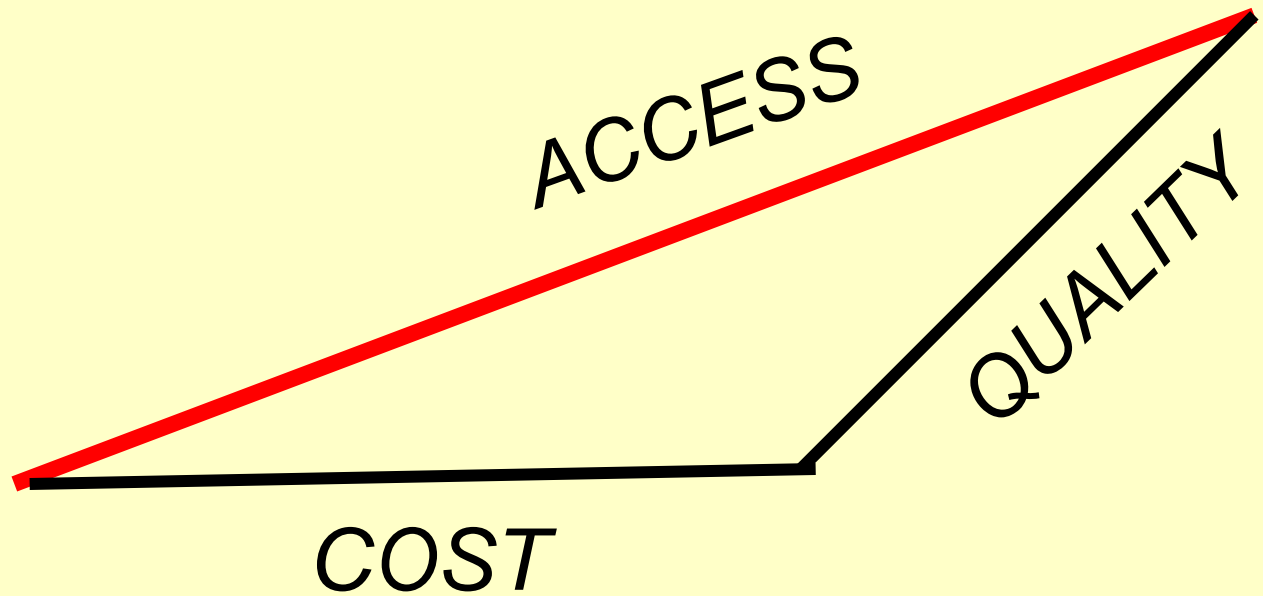
**ACCESS**



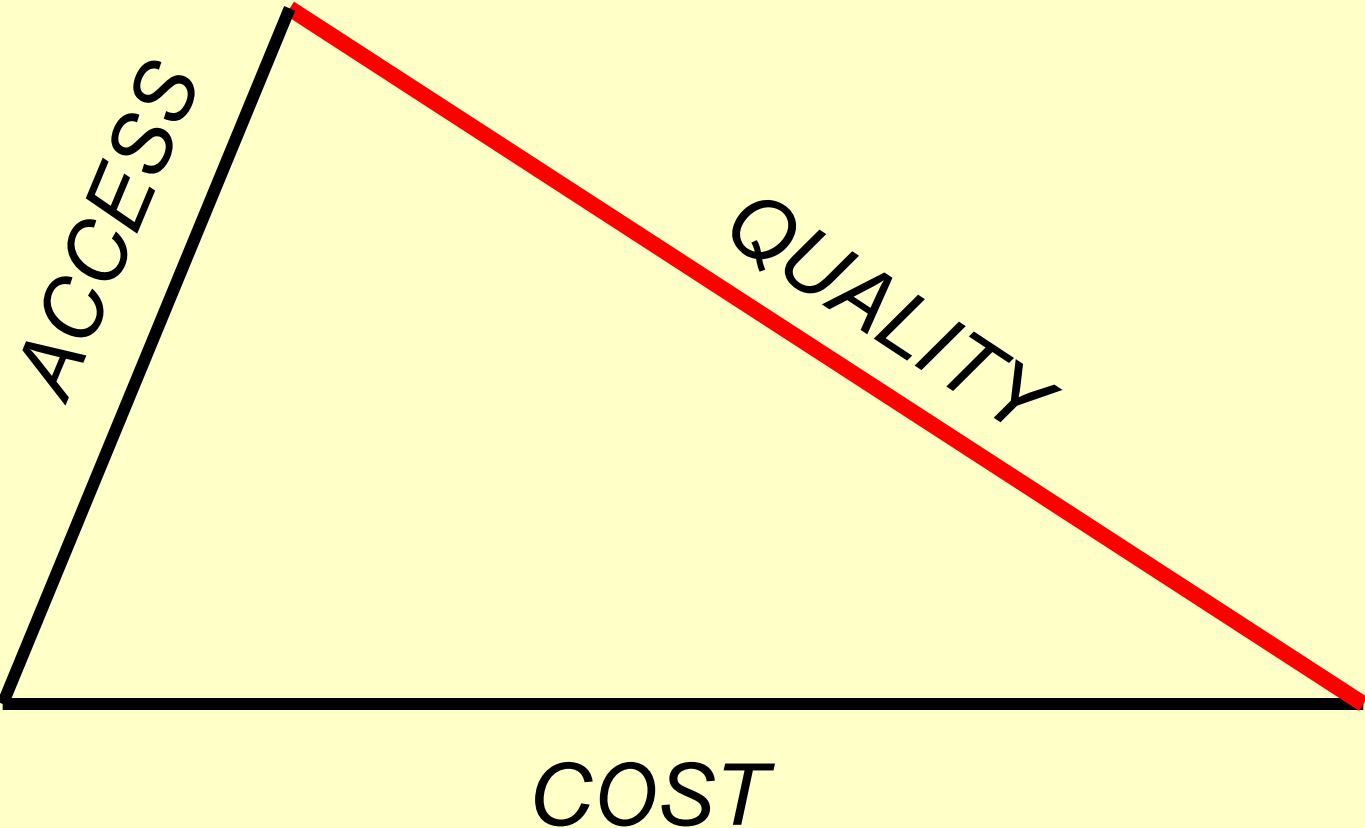
**QUALITY**

**COST**

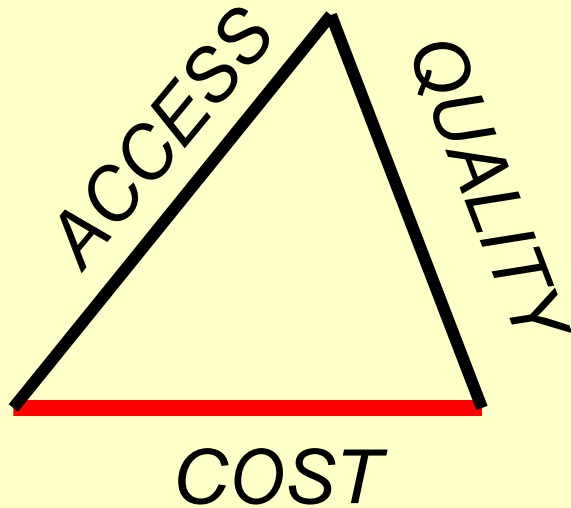
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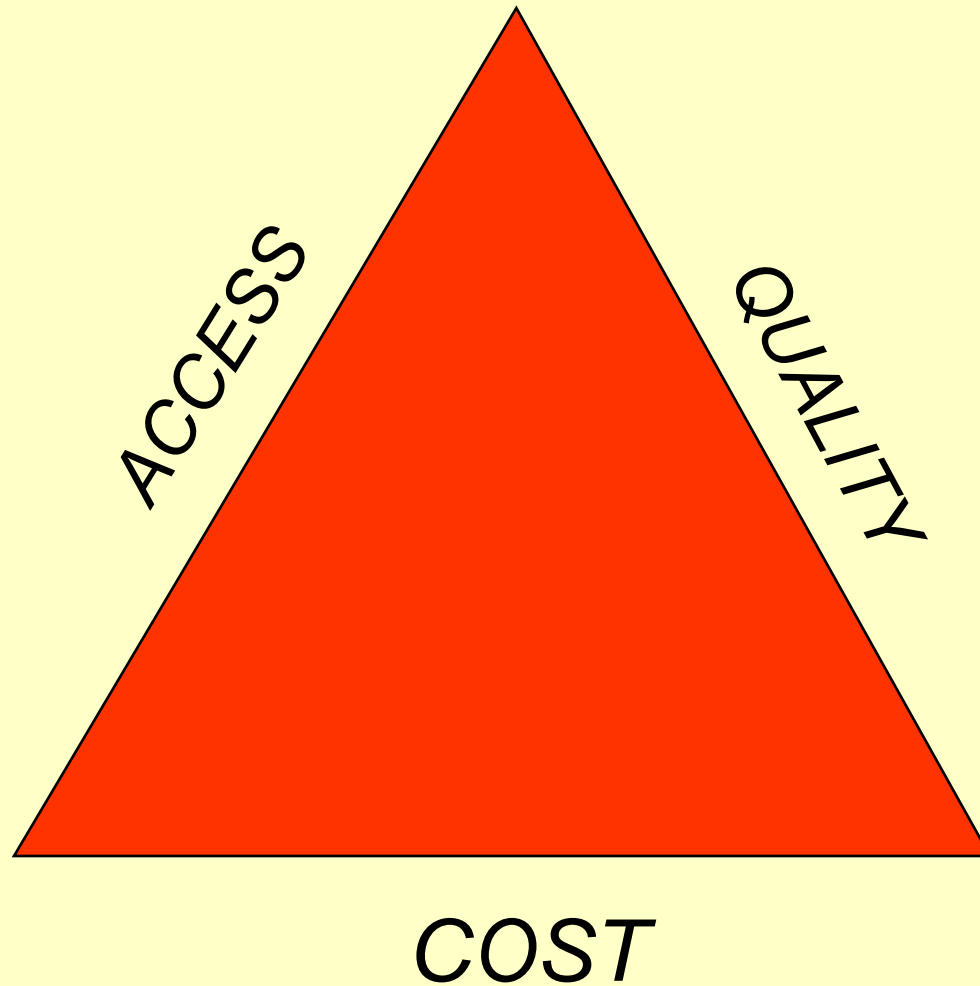
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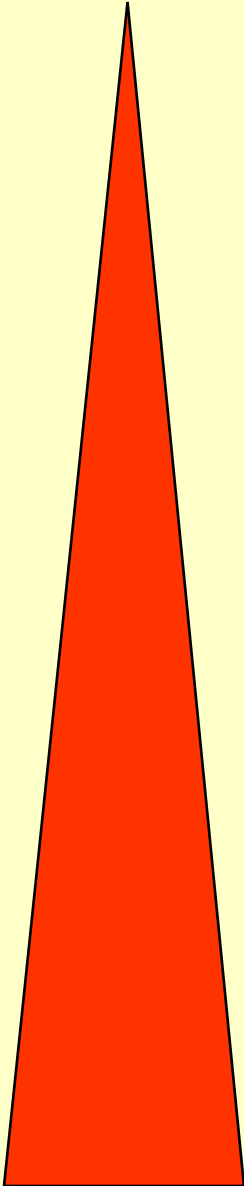
# *The Iron Triangle*



***“an insidious link between  
quality and exclusivity”***



**ACCESS**



**QUALITY**

**COST**

# *The Technology Revolution*

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

***ALL AT THE SAME TIME!***

# Two Generations of Technology

- *Productive technology:  
the industrial revolution*
- *Digital technology:  
the information revolution*

# *Principles of Technology*

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



*Adam Smith*  
*1723-1790*

# ***DIGITAL TECHNOLOGY***

*“networked individualism”*

*“participating, collaborating and  
producing as part of a community”*

*“connectivism”*

*productive technology*

+

*digital technology*

***Is it scalable?***

'essential reading for all involved in higher education'  
TIMES HIGHER EDUCATION SUPPLEMENT

# Mega-Universities & Knowledge Media

Technology Strategies  
for Higher Education

John S Daniel

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open &  
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# MEGA-SCHOOLS, TECHNOLOGY AND TEACHERS

ACHIEVING EDUCATION FOR ALL

ROUTLEDGE

'essential reading for all involved in higher education'  
TIMES HIGHER EDUCATION SUPPLEMENT

# Mega-Universities & Knowledge Media

100,000 students

Technology Strategies  
for Higher Education

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series

10,000 pupils

# MEGA-SCHOOLS, TECHNOLOGY AND TEACHERS

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Learning  
made easy



Under MHRD, New Delhi

**AVI-840005**

**National Institute for Open Schooling –  
India**

**400,000 new pupils annually**



## Namibian College of Open Learning

28,000 pupils  
=  
40% of secondary



# Integrative

Placed at the heart of the  
educational system to  
strengthen it

Model for the future

# How to improve quality? (UNESCO)

- good learning materials
- focus on the curriculum
- regular, reliable assessment of learning
- pedagogical materials for teachers
- relevant content
- teach reading and writing
- structured teaching
- independent learning
- appropriate language of instruction
- larger classes with better inputs

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# Collaborative Development of Learning Materials

- Digital formats:  
move, adapt, convert
- Open Educational Resources  
OERs

# Collaborative Development of Learning Materials

## COL & Hewlett Foundation



20 sets of self-instructional materials in the secondary curriculum (each is a complete syllabus for one grade 10 or 12 subject)

# OPEN SCHOOLS

and the integration of ICTs

into the whole school system

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# OPEN SCHOOLS

and the integration of ICTs  
into the whole school system through:

- production of Open Educational Resources
- general IT expertise
- assessment materials (question banks)

# CONCLUSION

We are seeing the beginnings of a process that will lead to much closer integration between open schooling and conventional schooling

# 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

- 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:

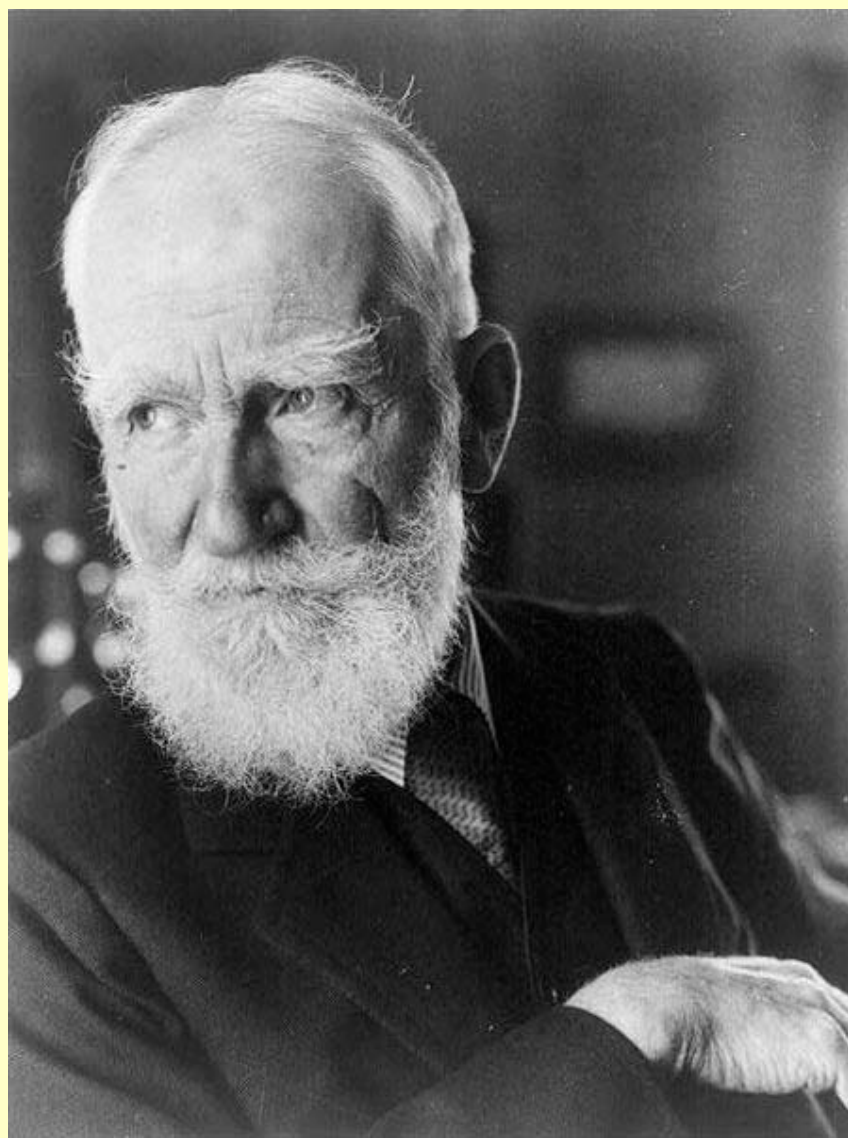
- Status of profession
- Ease of recruitment
- Pupil performance

# 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 this 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 (UNESCO, 2007).*

“sending people into the classroom with minimal initial training can be a very good strategy for our times if they are then provided with appropriate on-the-job training”

**TEACHFORAMERICA**



**Teach First**  
LEARNING TO LEAD



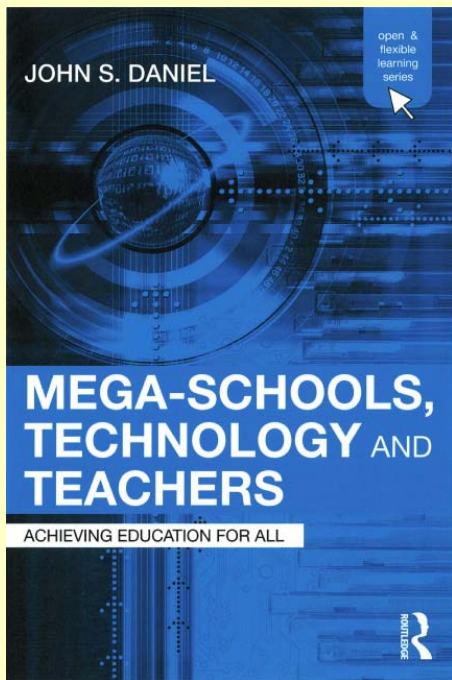
BETH LOMAX  
ROSHAN NEJEWATI  
LAURA HOLPE  
BEN BARTLETT

**Teach First**  
LEARNING TO LEAD

**Join in, stand out.**

If you really, really, really care...  
If you want to change the world...  
If you want to inspire and lead...  
If you want to make a difference...  
If you want to stand out...  
If you want to lead...  
If you want to make a difference...  
If you want to stand out...  
If you want to lead...  
If you want to make a difference...  
If you want to stand out...  
If you want to lead...

*“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*



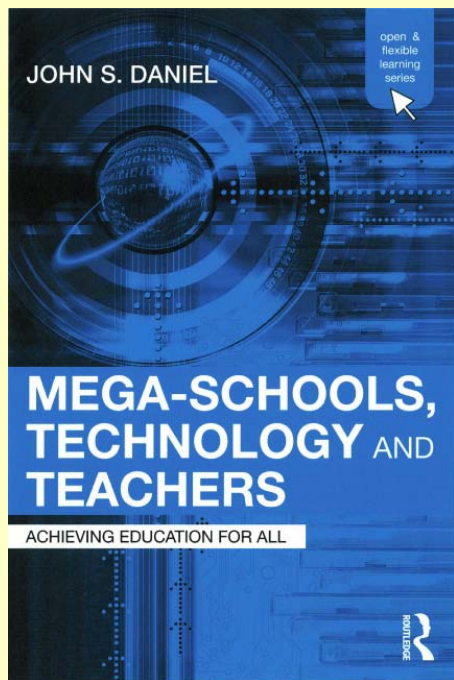


## Top average scores for mathematics

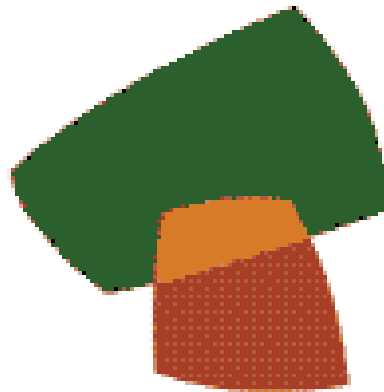
Chinese Taipei	549
Finland	548
Hong Kong China	547
Korea	547
<b>Quebec</b>	<b>540</b>
Netherlands	531
<b>Alberta</b>	<b>530</b>
<b>Canada (overall)</b>	<b>527</b>
<b>Ontario</b>	<b>526</b>
Macau China	525
<b>British Columbia</b>	<b>523</b>
Japan	523
New Zealand	523

# 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

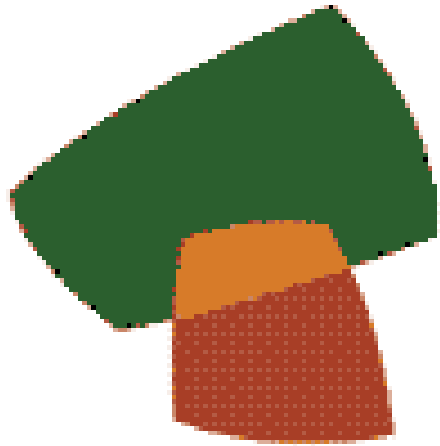


# TESSA

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**Teacher Education in Sub-Saharan Africa**

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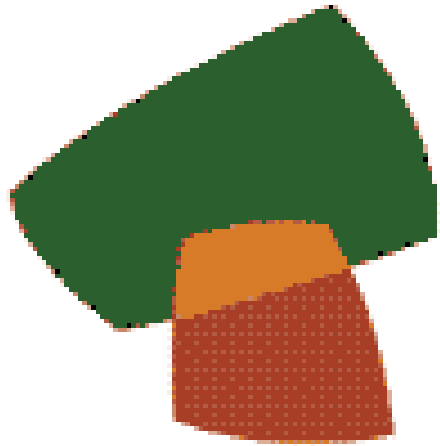
# TESSA

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**Teacher Education in Sub-Saharan Africa**

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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

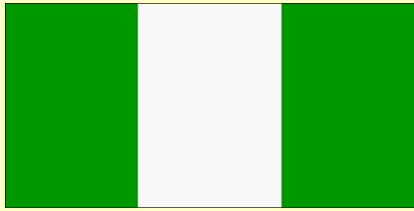
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**Teacher Education in Sub-Saharan Africa**

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*Last year 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:



University of Fort Hare

# CONCLUSION

Teacher Education

in the context of

the campaign for

**Education for All**



# CONCLUSION

10 million additional teachers  
required by 2015



# CONCLUSION

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

# CONCLUSION

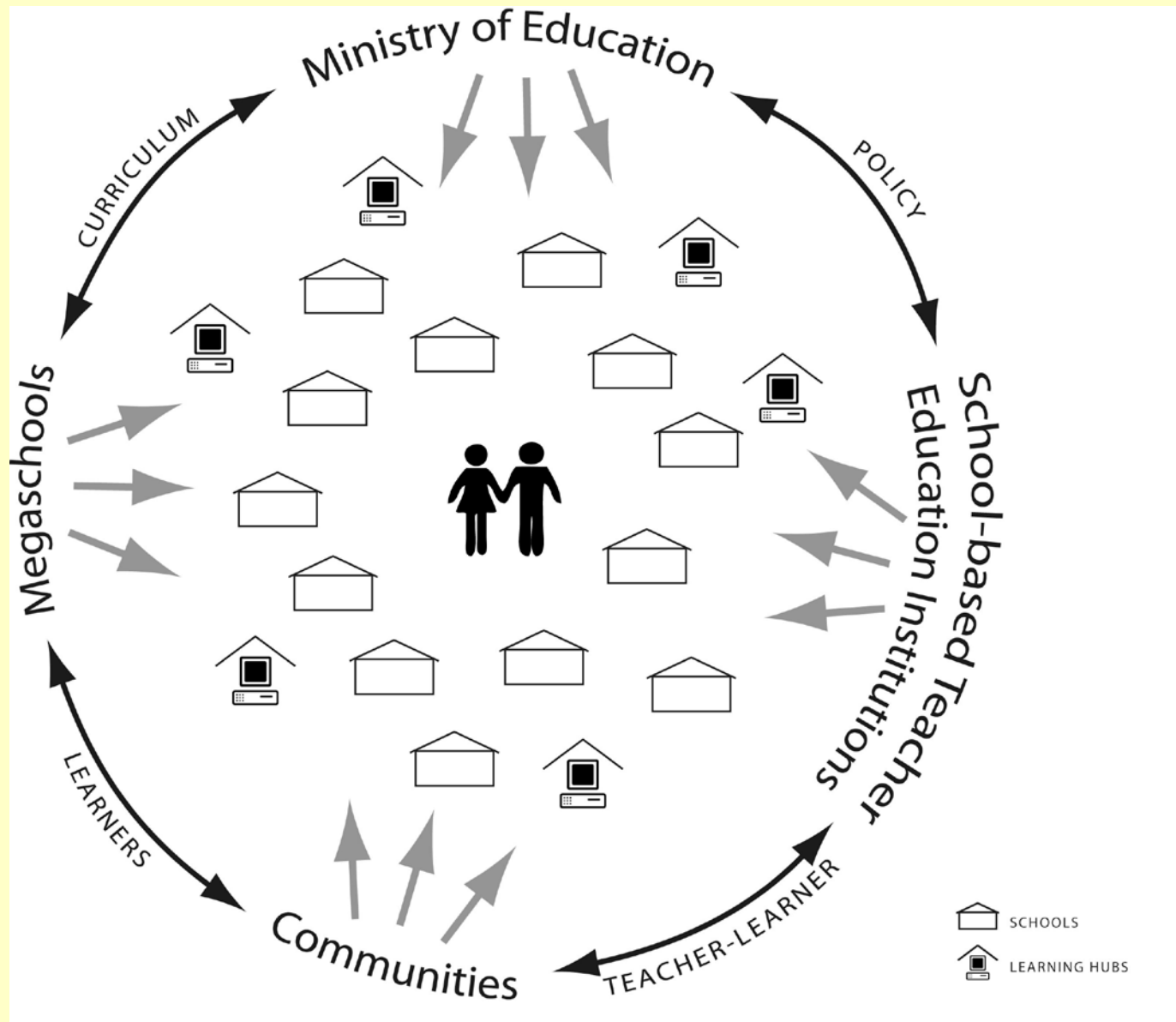
Teacher education institutions will have to give themselves the capability to offer distance learning programmes in order to reach teachers in their schools.

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



## Top average scores for mathematics

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<b>Quebec</b>	<b>540</b>
Netherlands	531



# 21<sup>st</sup> Century Educational Ecosystem



Frances  
Ferreira  
(Open Schooling)



Abdurrahman  
Umar  
(Teacher Education)

**Special Thanks!**

JOHN S. DANIEL

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THANK YOU

*For text and slides:  
[www.col.org/speeches](http://www.col.org/speeches)*



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