

Higher Education in India

Promise vs Fulfilment

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“Now that I have a college education,
maybe I’ll be able to save enough money
to pay for my college education.”

www.claybennet.com

India's USP ?

India has one of the world's largest English-speaking, technical manpower pools:

5×10^6 scientists, engineers and technicians. Over 1.0×10^6 engineers alone!

3.0×10^5 (6%) engaged in R&D; 4.5×10^5 allopathic physicians

2.0×10^5 agricultural graduates, 4.0×10^4 veterinarians

India's USP ?

Degrees dime a dozen



(True for other degrees also)

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- **Graduates:** 9.5×10^6 in liberal arts, 4.5×10^6 in sciences, 5.0×10^6 in commerce
- **Post Graduates:** 4.5×10^6 in liberal arts, 1.0×10^6 each in sciences and commerce
- **1100 colleges produce 3.5×10^5 technologists each year - 60% from four southern states alone!**

But...

...numbers hide a grave crisis

Finest scholars are emigrating.

Indian students form the largest foreign group in US universities (> 75,000).

Most graduates lack basic communication skills and problem solving capacity.

Higher education and Advanced degrees?

- **Low wealth creation**
- **Educated unemployment**

Communication & Problem solving skills !



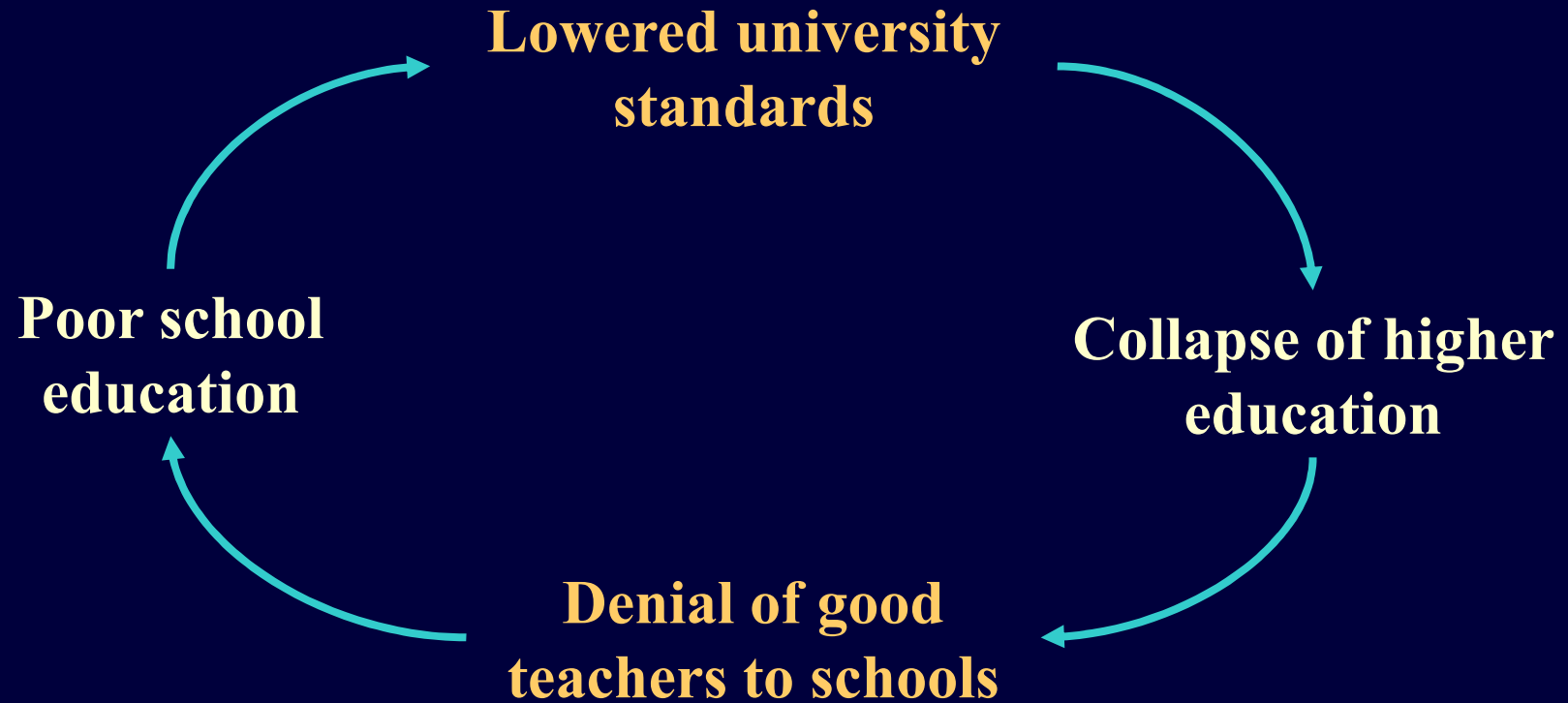
“Please help ma’am. I need support to write my Ph.D. dissertation on *Successful Fund-raising Techniques*.”

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Water water everywhere ...

- ...yet India faces acute shortage of capacity in health care, education, justice delivery, law and order.
- **Huge mismatch between societal needs and human resources**
- **Primary function of higher education - to add real value to human resources, produce wealth creators and genuine problem solvers.**

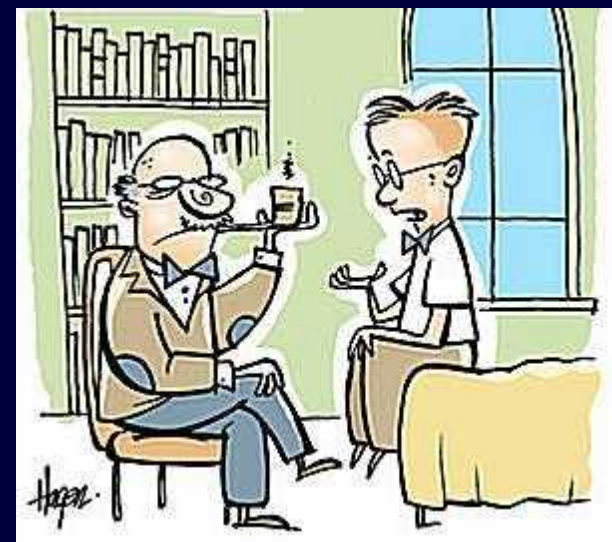
The Vicious Cycle



Functional literacy itself quite low ~ 20%

Positive Factors - Opportunities

- **Youngsters ambitious, hard-working, highly motivated**
- **Parents willing to pay for good education**
- **Indian tradition treasures learning and scholarship**



“But Father, I don't want to study space time temporal theories in relation to collapsing pulsars, I want to do my own thing!”

Hagen, Ralph

How and where to reform?

Higher Education Reform should focus on five key areas:

- **Resources and infrastructure**
- **Teaching and Mentoring**
- **Course content and syllabus**
- **Examination system and testing mechanisms**
- **Accountability and standards**
- **Research, problem-solving, community interaction**

‘non-monetary reforms’

Focused non-monetary reforms could have a huge impact

Teaching and Mentoring

- **Quality of teaching appallingly low**
- **'In-breeding' in universities; no cross-fertilization of ideas**
- **Political patronage, in-fighting, caste-prejudices**
- **Need for mentoring, not mere lecturing**

Simple, non-monetary solution:

University graduates need to be placed outside their *alma mater*

Course Content and Syllabus

Designing appropriate courses!



Med School 101... "Affordable Diseases"
Med School 302... "Unaffordable Diseases"

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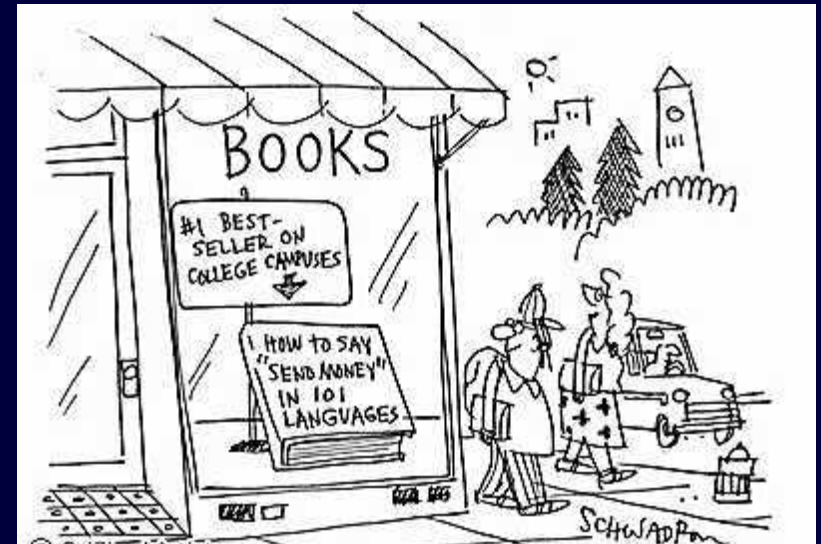
- **Rigid, inhibiting academic set-up**
- **No opportunities for both students and teachers to express creative talent**
- **Students, teachers have little say in course and syllabi structure. No ownership in classrooms.**
- **Knowledge artificially segregated into water-tight disciplines**

Course Content and Syllabus

- **Excessively narrow technical focus**
- **Still, lack of conceptual clarity**
- **Humanities and Communication Skills increasingly being ignored**

**Elective System offers way out.
Designed by Charles Eliot of Harvard
University in the 1870s.**

**Our own IITs offer humanities, ‘minor’
degrees for students.**



“# 1 Best seller on college campuses. How to say “send money” in 101 languages.”

Harley Schwadron

Examination System and Testing Mechanisms

- **Exams – even at varsity levels – test rote memory.**
- **Need to redefine academic ‘success’**
- **Test analytical skills, application of knowledge, problem-solving capacity and innovation**
- **Evaluating communication skills also vital**



“I really crammed last night.”

Hagen, Ralph

Accountability and Standards

- **Student evaluations**
- **Peer- and Management- Evaluations**
- **‘Independent metrics’ to grade competency and performance – research publications, research projects and funding**

Interaction with Community

- **Addressing real-world problems**
- **Generating creative solutions**
- **Integrating curriculum with real-world problems**



“Well, don’t just stand there boy!
Start supporting yourself!”

www.bized.ac.uk