

# **Harnessing OER for achieving Educational Goals**

**Prof. E. Ramganesh**

Director, Institute for Entrepreneurship and Career  
Development & DDU Kaushal Kendra,  
Bharathidasan University,  
Tiruchirappalli, Tamil Nadu

# Paradigm Shifts in Education

- From Brick Universities to Click Universities
- From Hierarchy to Wirearchy
- From Central Nervous System to Digital Nervous system
- From Digital immigrants to Digital Natives
- From Pedagogy to Cybergogy
- From local to Global

# 4 Future Scenarios for Higher Education

Source: The full Future Skills Report 2019



Ehlers-2019

## 1. The 'future skill' University

- Complex Pbm Solving
- Sense of Responsibility

(63% Agree)



# 4 Future Scenarios for Higher Education

## 2 . The networked, University

- ‘digital import’ & digital export
- Multi-institutional Model

(46% Agree)



# 4 Future Scenarios for Higher Education

## 3. The “My-University”

- Students build own curricula on their Interest
- Curriculum (Flexi, Personalized participatory model)  
(60% Agree)



# 4 Future Scenarios for Higher Education

## 4. The lifelong higher learning

- personal skill needs
- Competence demands

(60% Agree)



**WIRED**

In a March 2012 **Wired** cover story, **Sebastian Thrun** predicted:



“In 50 years... there will be only **10 institutions** in the world delivering higher education and Udacity has a shot at being one of them”

(cited in Leckart, 2013, P.28)

# OER

Open Educational Resources are teaching, learning or research materials that are in the public domain or released with an intellectual property license that allows for free use, adaptation, and distribution -UNESCO



# Why OER matters

- Increases choice and competition
- Aligns open source with open standards objectives
- Positions software as a public good
- Increases technological self reliance
- Reduces vendor lock-in
- Increases transparency
- Minimizes security risks

# Why OER matters

- Not reinventing the wheel
- Sharing good practice
- Capacity building
- Breaking down barriers to learning
- Networking between teaching practitioners
- Cross fertilization of ideas between disciplines

# Values of OER for achieving Educational Goals

Knowledge is our common wealth

- Equity
- Inclusion
- Collaboration
- Respect for Diversity
- Cost and quality
- Lifelong learning

# Some OER initiatives in India

- NDL ( IIT Kharagpur –Free Access to Digital Content)
- NKN (Connecting Institutions, labs, lib, healthcare etc)
- Shodhganga
- ShodhGangotri (repository of Indian Research)
- EPrints@IISc
- CEC
- Project Ekalavya @IIT B for content devt in Indian Lang
- Agropedia ICAR
- e-PG Pathshala Project (free access to standardized e-textbooks for postgraduate courses)

# Some OER initiatives in India

- NPTEL
- NROER
- Project Oscar-IIIT-B
- Open Educational Resources for Schools (OER4S)-  
Homi Bhabha Center for Science Education
- NIOS-OER
- TESS-India
- KROER

Involving people at the grassroots level is key to the sustainability of OER as a people's movement.

# Promise of OER for achieving SDG 4

OER are a strategic opportunity to improve knowledge sharing, capacity building and universal access to quality learning and teaching resources

**THE GLOBAL GOALS**  
For Sustainable Development



# Harness OER to achieve EG

- Capacities of 21<sup>st</sup> Century Education
- STEM Education
- Indigenous languages and cultures
- Gender equality
- Teachers' open education practices



# Harness OER to achieve EG

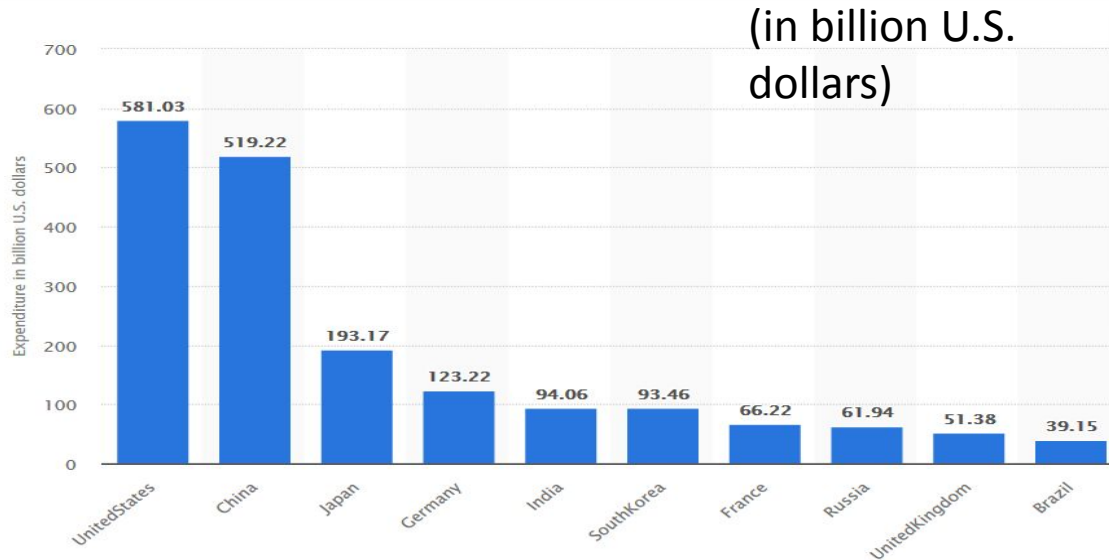
- Students' knowledge deepening and creation
- Industry Institute Cluster
- Developing Entrepreneurship Ecosystem
- Quality assurance mechanisms
- Non-formal learning with a focus on adult literacy Education

# Higher Education(NEP)

- HEIs focusing on research and innovation by setting up **start-up incubation centres**
- Setting up Incubation centres in higher education institutions in **partnership with industries**
- Setting up Agricultural Technology Parks to promote **technology incubation** and dissemination

# Global Expenditure on R&D

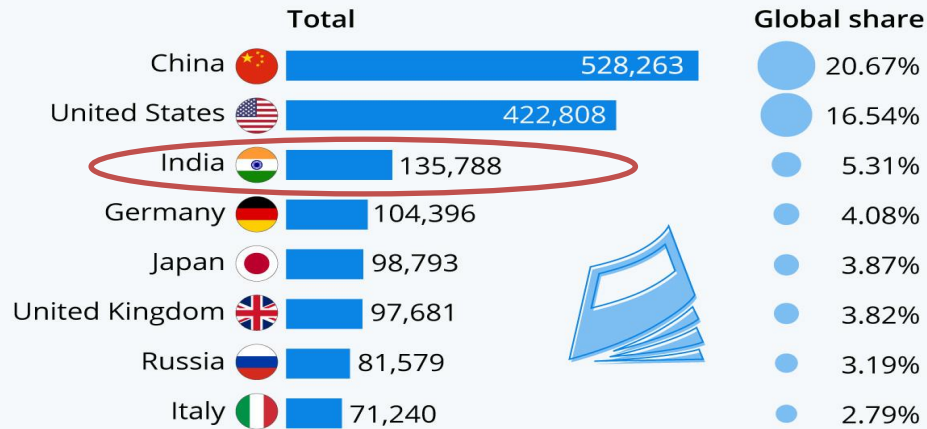
Leading countries by gross research and development (R&D) expenditure worldwide in 2019



# Scientific Publications comparison

## The Countries Leading The World In Scientific Publications

Number of science & engineering articles published in peer-reviewed journals in 2018

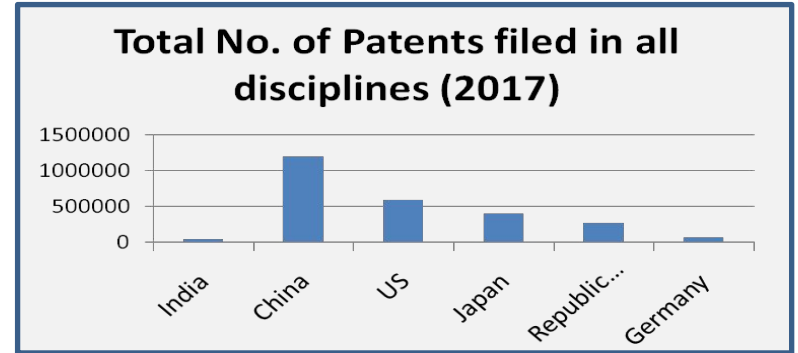
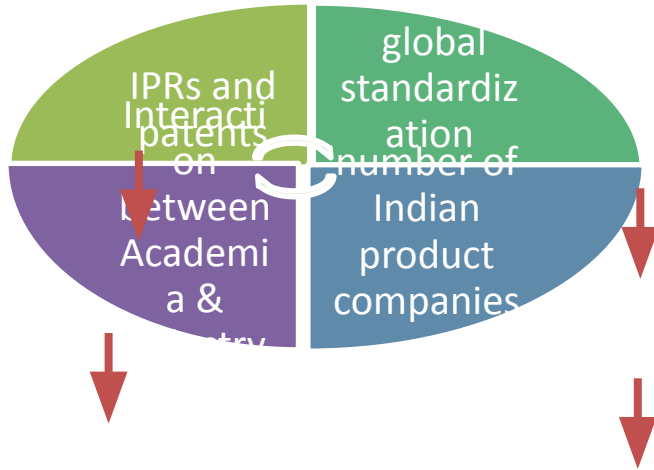


Source: National Science Foundation



statista

# Current State: Lack of Innovation



Source: [World Intellectual Property Indicators 2017](#)

# Role of Academia

- **Standard Development**
- **IPR Creation & Innovation**
- **Patents and Papers**

# Harness OER for Research and Innovation

- OER-Catalyst for Research and innovation
- United Kingdom's Open University's OER Research Hub
- MIT OER
- RICE University OER
- California State University MERLOT

# Future Perspectives of OER

- Validation of quality of open educational resources
- Translation and localisation of content
- Web access for disabled people
- Technical issues related to accessibility



Thank you!

