USC Viterbi

School of Engineering

iPodia

THE GLOBAL CLASSROOM

Having been a national leader in distance learning (DEN@Viterbi) for the past 40 years — from television to satellite to Internet delivery — we are now re-imagining the classroom itself.

Imagine a future where a classroom at USC Viterbi is not just a classroom in Los Angeles. It is a global classroom. Students from a small number of select engineering schools across the globe, taking at the same time together a joint class, in a global classroom enabled via Internet access. This is something we're already realizing with our iPodia program and our newly founded iPodia Alliance.

iPodia is a program that occupies the intersection of three important areas: globalization, technology, and engineering education. It is global engineering education in a global classroom to which access is enabled through technology. Moreover, because of the synchronous, live interaction between students and instructors it is ideally suited for an "inverted or flipped classroom" mode of instruction, in which the classroom experience is dedicated to solving problems, albeit in a global context. The iPodia Alliance is a partnership of select engineering schools across the globe that participate in the iPodia program and contribute students, instructors and course material.

Interactivity, teams of peers, no exchange of funds or tuition and fees (hence no financial motive), and modern pedagogy make iPodia very different than other, current experiments in distance learning, such as MOOC (Massive On-Line Open Courseware), Coursera or the EdX venture.

**Yannis C. Yortsos
Dean, USC Viterbi
School of Engineering**

What is iPodia?

Using immersive video conferencing — currently three screens per classroom — iPodia is a common learning environment between select schools worldwide, where students from member schools take a common class for use in their own curriculum. The class is synchronous and interactive, includes case studies, student projects and a team presentation at the end of the semester in one of the schools. Unlike traditional distance education where information technology is used to eliminate the delivery distance between teachers and students, iPodia uses technology to eliminate the distance between students across different institutions globally, creating a true global classroom.

Where Education, Globalization & Technology Meet
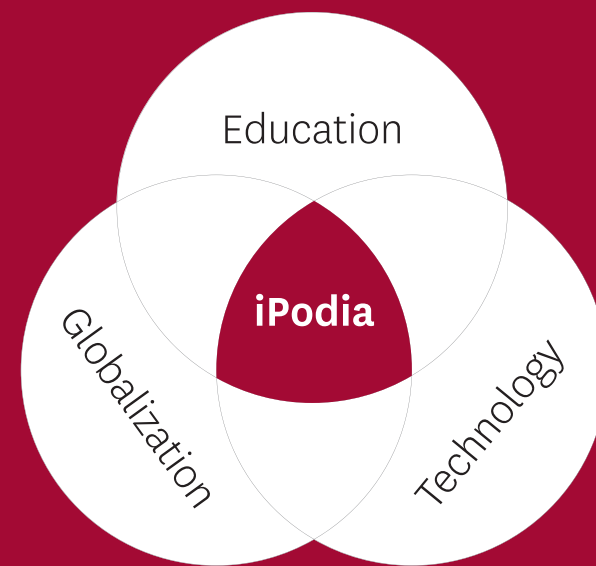
Education

iPodia

Globalization

Technology

"Imagine a future where a classroom at USC Viterbi is not just a classroom in Los Angeles. It is — without hyperbole — a classroom of the world, for the world, and by the world. Imagine a day in the life of a student: they walk into their 9 a.m. class, say hello to their friends from Haifa and Aachen. At 4 p.m., they walk into class, greet their classmates from Beijing and Taejon. At 9 p.m., they're debating innovation with friends from Taipei and Mumbai."
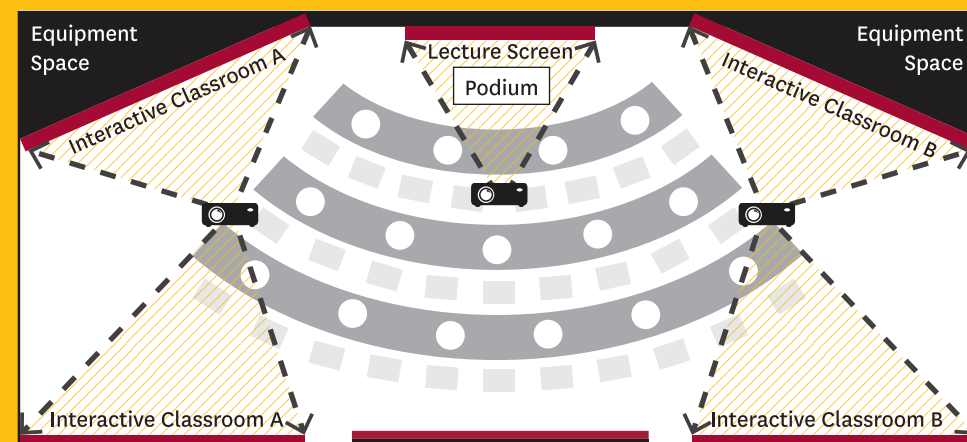
—Stephen Lu
iPodia Director

The iPodia Alliance

The iPodia Alliance consists of the following elite schools, spanning multiple regions and continents:

China: Peking University
Germany: RWTH Aachen University
India: Indian Institute of Technology, Mumbai
Israel: Technion–Israel Institute of Technology
South Korea: Korea Advanced Institute of Science and Technology
Taiwan: National Taiwan University
United States: University of Southern California

Inside the iPodia Classroom

Equipment Space
Lecture Screen
Podium
Equipment Space
Interactive Classroom A
Interactive Classroom B
Interactive Classroom A
Interactive Classroom B
Entrance

No-Distance Learning

Photograph from Spring 2011, showing students from USC and Peking University meeting each other face-to-face at the end of a semester of learning together in the iPodia program.

Viterbi at a Glance

Founded
USC Engineering began in 1905

Student Population
Approximately 2,100 undergraduate students and 4,200 graduate students

Faculty
174 tenure-track faculty, with 52 endowed chairs and professorships, 60 NSF Career Awardees and 19 full-time, tenure-track NAE members (34 total)

Academic Departments
Eight

Alumni
More than 60,000

Annual Research Expenditures
More than $180 million, with more than 45 research centers and institutes

Research Centers and Institutes
Home to:
» Information Sciences Institute (ISI)
» The Ming Hsieh Institute
» The Daniel J. Epstein Institute
» Two National Science Foundation (NSF) Engineering Research Centers (ERC)
    › Integrated Media Systems Center (IMSC)
    › Biomimetic MicroElectronic Systems Center (BMESC)
» University Center of Excellence of the U.S. Department of Homeland Security - Center for Risk and Economic Analysis of Terrorism Events (CREATE)
» Department of Energy Frontiers Research Center (EFRC) – Center for Energy Nanoscience at USC
» Biomedical Informatics Research Network (BIRN)
» HTE@USC (Health, Technology and Engineering@USC)
» LADWP/DOE Smart Grid Demonstration Project
» Center for Interactive Smart Oil Field Technology (CiSoft)
» Pratt & Whitney Institute for Collaborative Engineering (PWICE)
» Center for Research and Education in Advanced Software Technologies (CAST)
» NIH Center on Genomics and Phenomics of Autism
» Viterbi Student Innovation Institute (VSI²)
» USC Energy Institute

Affiliated with:
» Alfred E. Mann Institute for Biomedical Engineering (AMI)
» Institute for Creative Technologies (ICT)
» USC Stevens Center for Innovation

Education Centers
» Division of Engineering Education
» KIUEL (Klein Institute for Undergraduate Engineering Life)
» VAST: Viterbi Adopt-a-School, Adopt-a-Teacher