Adoption of ICT in Philippine Educational Institutions

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OUTLINE

PRESENT SITUATION

CHALLENGES

INSIGHTS FROM UIC

POSSIBLE STRATEGIE S

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KEY FACTORS DRIVING EDUCATION TODAY

- •21st Century Learning
- •4th Industrial Revolution

P21 Framework for 21st Century Learning 21st Century Student Outcomes and Support Systems







Republic of the Philippines DEPARTMENT OF SCIENCE AND TECHNOLOGY Science Education Institute

Deped to boost ICT in schools starting 2018

By Ma. Cristina Arayata 👘 🛗 December 15, 2017, 7:48 am





SEI to boost ICT use in science education

Sources: http://www.pna.gov.ph/articles/1018975

http://www.sei.dost.gov.ph/index.php/news-archive/24-sei-to-boost-ict-use-in-science-education

Thoode.net English - United States (en_us) -

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Philippines 382 sites total (241 are private and are not shown)

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Source: https://moodle.net/local/hub/top/sites/?lang=en_us



Special lectures from prominent researchers and educators in the information and communications technology.

- 1. Advance Public Health Informatics
- 2. Advance Health Informatics
- 3. Advance Personalized Learning
- 4. Advance Secure Cyberspace
- 5. Engineer the Tools of Scientific Discovery
- 6. Reverse Engineer the Brain
- 7. Enhance Human-Machine Interaction
- 8. Advance the processing of Natural Languages
- 9. Finding Knowledge from Very Limited Data
- 10. Store and Manage the Memory of the Human Race
- 11. Ubiquitous Computing



COMPUTING SOCIETY OF THE PHILIPPINES SPECIAL INTEREST GROUP ON INFORMATION AND COMPUTING EDUCATION

1st Information and Computing Education Conference

October 4-6, 2018
Cebu Institute of Technology-University (CITU), Cebu City, Philippines

Research Conference

- Gamification
- Online Learning
- Mobile Applications
- Natural Language Processing
- Health Information Systems
- Artificial Neural Networks
- Disaster Risk Reduction Applications





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CHALLENGE S

- SCHOOL ADMINISTRATION
 - POLICIES
 - HUMAN RESOURCES
 - INFRASTRUCTURE
 - BUDGET
- GOVERNMENT SUPPORT
 - GOVERNMENT PROGRAMS
- PARTNERSHIPS
 - PUBLIC + PRIVATE SECTOR
 - INDUSTRY + ACADEME
- ACADEMIC INSTRUCTION
 - LACK OF DATA FOR RESEARCH

CHALLENGES – School Administration

- Policies created only for compliance but without concrete technical understanding for implementation.
 - Many teachers cannot even distinguish email systems from school information systems.
- Ultra-multitasking of ICT-literate individuals (e.g. teacher = technical staff)
 - Formatting computers vs. computer networking vs. programming vs. graphics design, etc.

CHALLENGES – School Administration

- Application Servers + Database Servers + Internet Connectivity
 - To Cloud or not to Cloud?
- Expensive, Expensive, Expensive! 5-year depreciation for computers, 10-years for servers and networking equipment.

CHALLENGES – Government Support Programs

- Many schools are not aware about funding from the Government.
 - E.g. Schools trying to secure budget from CHED because they want to invest in expensive ICT equipment, not knowing that only certain types of capital expenditures are allowed and most are operational expenses.
 - Many are not proposing to DOST which allows capital expenditures.
- Delays in disbursement of funds
- Consistency of ICT Programs for Schools

CHALLENGES - Partnerships

- Never-ending "war" between Industry and Academe
- Vendors not truly understanding the needs of the Academic Institution
 - E.g. Why don't the Internet service providers bundle the web filtering feature in their Internet service? It will save the schools from investing on another UTM device just to block porn and unethical websites. It will also help schools that have scarcity ICT human resources.
- Interlinked challenges: Infrastructure vs. International Partnership

CHALLENGES – Academic Instruction

- Lack of Data for Research Other countries have complete datasets for research (BIG DATA)
- Personal budget of educators not enough allocation for technology. P50.00 for 1GB Internet Connectivity is expensive for educators and students. Goodbye Flipped Classroom!

CHALLENGES – Academic Instruction

- Signal Issues Educators and students sometimes need to invest in more than one provider (Smart vs. Globe, etc.) because signals apparently are territorial.
- Many teachers and administrators are unfortunately not equipped with 21st century skills - Difficulty in using office applications, the term "IT" for many people is the same. Computer Technician = Software Engineer = Cellphone Repair Technician = Network Engineer = Computer Scientist = BPM agent = etc.

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INSIGHTS FROM UIC

 Administration Support is Crucial - Administrators should not only appreciate technology but should also be literate about it.

• (We are lucky to have a president is tech-savy)









INSIGHTS FROM UIC

•Have an Institutional Information Systems Strategic Plan to guide the school in its ICT implementation

INSIGHTS FROM UIC

 Take advantage of the benefits given to academic institutions by vendors (e.g. Free license given by Autodesk, Community edition software applications, Discounted pricing by Microsoft, Adobe, Apple, etc.)



INSIGHTS FROM UIC

• Have ICT Human Resources who don't only understand technology, but also know how to explain the school's ICT needs in layman's term.



INSIGHTS FROM UIC

• PATIENCE is a VIRTUE!

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SUGGESTIONS

Stop planning and start doing.Stop demanding and start giving.

SUGGESTIONS

- •Just maybe:
 - Prepaid promo for faculty and students with unmetered bandwidth for P50.00, with no capping, but with limited access to Internet resources (ex. No pornsites, no online games, safe browsing enabled.)

Thank you!