

FSTE Conference 2017

24 November 2017 p.m., HKCC

I.T. Support on e-Learning platform - the making of ERS100 for teachers, students and administrative support

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(the joint paper arises from a Language Learning Centre Startup exchange in a learning centre in TSTE - discussing on I.T. projects, later on ideas of eLearning and Innovative I.T. applications; Thanks to FSTE for this FSTE Conference 2017 Innovative Learning and Teaching)

why ERS100?

for students without eLearning Platform

why ERS100 is successful?

our system takes much less time to access

why students like ERS100?

going to eLearning platform like Canvas takes more time

how: tools?

using latest Microsoft Development Platform
and Object Oriented Development Methodology

how: duration?

takes over 3 years of research and
development

how: eLearning support?

The TedTalk YouTube eLearning Channel

The TedTalk YouTube eLearning Channel

<https://www.youtube.com/channel/UCclr6GAftYq0DNpOtuoVM>

Conference 2017: Innovative Learning and Teaching

Aiming at providing an opportunity for stakeholders in the Sector to share their latest research, views, professional e latest development as well as exploring ideas about Innovative Learning and Teaching, we welcome papers or pres focus on computer-aided assessments, e-learning platforms, flipped/virtual classroom, experiential learning, integrated/problem-based/service learning and/or international partnerships in teaching.

Free registration for FSTE Members until 17 November 2017 – [reserve your seat now!](#)



This conference aims to provide a platform for all stakeholders, including educators, lecturers and researchers to exchange ideas and experiences.

Date: 24 Nov 2017 (Fri)

Time: 2 : 15 pm

Venue: UG 06

I.T. Support on e-Learning platform - the making of ERS100 for teachers, students and administrative support

Paper for presentation to FSTE 2017 Conference

Siu BKT*, Yang CCR*

395 words

This paper reports the making of ERS100 (Electronic Resource System), a private cloud based drop box application to supplement eLearning platform used in self-financing programs. It documents the School's research support on I.T. services aiming at both I.T. applications as well as eLearning applications. Project objectives of ERS100 are three fold: First, it is believed that no matter what eLearning platforms we are using, there is always an advantage of using private cloud technologies for faster access for mini-course notes, program administration circulars etc. with provision for downloads by students and uploads by teaching faculty in an online real-time mode using smart devices, USB and/or desktop. Secondly, leveraging on YouTube based eLearning video design technique, it is believed that computer skills of users can be upgraded, thus reducing the reliance on I.T. support resources. Thirdly, it is believed that practical research and development based on latest software (Microsoft) technologies will be fruitful. Although a small private cloud based application is used at present, it could be expanded for more applications.

The paper has 4 sections. Section 1 describes the School's support on two major areas of research development to support teaching and learning since three years ago, in the areas of e-Learning applications, application systems analysis and design methodologies. Section 2 describes two pilot applications: a Full-Degree Module Management Systems, and **ERS100 - a private cloud based drop box application for teaching faculty, students as well as program support staff. The application development has gone through 4 releases - Release 1.0 pilot research mode, to Release 2.0 (No database required) for Innovative users, to Release 3 (users manage their own database using Microsoft Access) for Highly Innovative users, and Release 4.0 (Database on Network based on Microsoft SQL Server 2016 (under construction)) for Traditional users.** Section 3 describes the difficulties encountered and I.T. solutions made to-date based on life-long learning principles, the importance of team work, plus management support and continuous work. Section 4 highlights recommendations on private cloud web-based I.T. application systems for educational institutions on top of their existing available e-Learning facilities, followed by Q&A time for sharing with participants and presenters, where an interesting research project on User I.T. Affinity (basically identifying different FSTE member institutions' Program Administrative Personnel's I.T. Skill Levels and Affinity to new I.T. applications) will be proposed for consideration as a Joint Research project by FSTE members institutions.

Keywords: Private Cloud, eLearning platform, User Affinity to New I.T. Applications.

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- ▶ Project 2012-2014 about System Development Methodology called SSADM for UK Government
- ▶ -found that not worthwhile to implement in the school due to the large scale planning and formalities needed for operations of large corporations with complex and interrelated systems
- ▶ -School systems are less complex, not integrated system

- ▶ Pilot Applications, Software Tools 2015-2017
- ▶ -using newest Microsoft Tools called
- ▶ -spent a lot of time, working on networking web based system, some pilot system for full-degree module add/delete/change simulation

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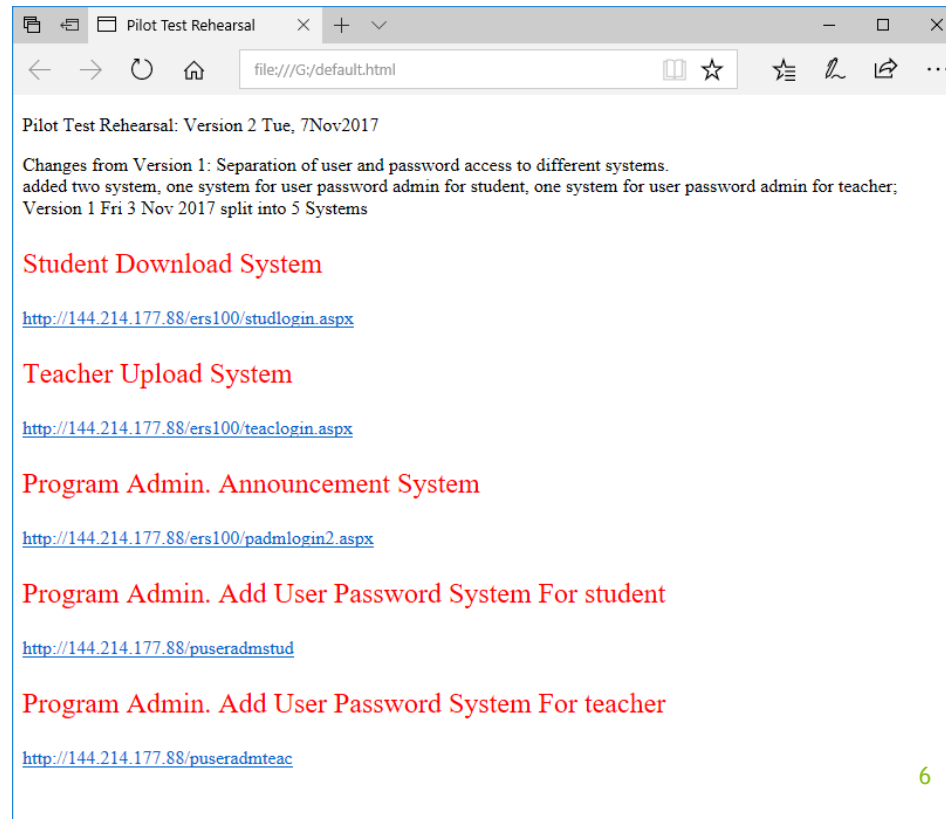
- ▶ Pilot Applications, Software Tools 2015-2017
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- ▶ New software development tools
- ▶ https://en.wikipedia.org/wiki/Microsoft_Visual_Studio
- ▶ **About the Software Development Technology Part**
- ▶ Microsoft Visual Studio is an integrated development environment (IDE) from Microsoft. It is used to develop computer programs for Microsoft Windows, as well as web sites
- ▶ Microsoft provides a free version of Visual Studio called the Community edition that supports plugins and is available at no cost.
- ▶ The technology part:
 - ▶ -Visual Studio also includes a web-site editor and designer that allows web pages to be authored by dragging and dropping widgets. It is used for developing ASP.NET applications and supports HTML, CSS and JavaScript. It uses a code-behind model to link with ASP.NET code
 - ▶ -*Data Explorer* is used to manage databases on Microsoft SQL Server instances. It allows creation and alteration of database tables
 - ▶ -Microsoft Visual Web Developer is used to create web sites using the c sharp language

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- ▶ The making of New Platform ERS100 - Electronic Resource System for non-UGC funded programmes (short duration 2-3 months, without student ID card)
- ▶ Developed 5 Web Applications based on Visual Studio (Community 2017 version)
- ▶ **Characteristics: NO eLearning Platform**
- ▶ **Objective of ERS100 - see the eLearning Web site, briefly student download, teacher upload learning material; programme admin staff upload announcements**
- ▶ - elearning web site (the YouTube Channel)
- ▶ <https://www.youtube.com/channel/UCclr6GAftYq0DNpOtu0VMXQ>
- ▶ (right click open hyperlink)
- ▶ Pilot system rehearsal demo, User Guide TedTalk YouTube Video
- ▶ - in English and Cantonese language
- ▶ Successful, why? **All other colleagues can view and repeat the viewing, Documentation of work**
- ▶ **ERS is made for all non-UGC funded programmes**
- ▶ **based on a design for one programme, then**



<https://www.youtube.com/channel/UCclr6GAftYq0DNpOtuoVMXQ>

Demo to (1) Program Admin, plus two IT Services Colleague

Loving It !!!(speed, clarity, smartphone accessible) for example the download function and upload function, but raised some concern on Coding scheme of Learning material Indexing (e.g. ChanTMLecture01.doc, etc.)

Request on “**User Friendly**” system for student and teacher username and password management: Mon 6 Nov 2017

Thank you for your work and demo. Other than Dr. notes, I would like to add my ideas to this system in coming pilot test as below:

1. File Area

- It would be more ideal to allow us to create separate folders in file area. Normally, programmes are comprise of several modules. Each modules may have over 10 notes. Students may find difficulty to locate the teaching materials which they are looking for in a pool of files. Naming convention is not user-friendly for teachers and students.

2. Access Right

- Roles should be clearly identified and have different access rights for Programme Admin, teachers and students. Ideally, teachers should not be allowed to view, revise and download other document that not possessed by him/her.

3. Announcement Area

- The announcement can be directly shown in a separate page in chronological order. The above functions are expected to be included in the system during first launch.

Thank you!

Regards

Work: 5 Systems: with an Announcement Box, plus Drop Box for each Teacher!

Demo to (2) Teacher (Academic Coordinator) plus Full Degree Student
having eLearning platform: **Loving It !!!**(speed, clarity, smartphone
accessible) for example Change of Classroom Location ANNOUNCEMENT!!!

- ▶ Changes from Version 1: Separation of user and password access to different systems.
added two system, one system for user password admin for student, one system for user password
admin for teacher; Version 1 Fri 3 Nov 2017 split into 5 Systems
- ▶ Student Download System <http://144.214.177.88/ers100/studlogin.aspx>
- ▶ <http://144.214.177.88/ers100/studlogin.aspx>
- ▶ Teacher Upload System <http://144.214.177.88/ers100/teaclogin.aspx>
- ▶ <http://144.214.177.88/ers100/teaclogin.aspx>
- ▶ Program Admin. Announcement System <http://144.214.177.88/ers100/padmlogin2.aspx>
- ▶ <http://144.214.177.88/ers100/padmlogin2.aspx>
- ▶ Program Admin. Add User Password System For student <http://144.214.177.88/puseradmstud>
- ▶ <http://144.214.177.88/puseradmstud>
- ▶ Program Admin. Add User Password System For teacher <http://144.214.177.88/puseradmteac>
- ▶ <http://144.214.177.88/puseradmteac>

Changes from Version 1 and 2 to Version 3 - now 9 Systems

From Thu 3 Nov 2017 Version 1 demo to Version 3, Wed 15 Nov 2017

- ▶ Section 3 describes the difficulties encountered and I.T. solutions made to-date based on life-long learning principles, the importance of team work, plus management support and continuous work.
- ▶ Difficulties encountered:
 - ▶ 1. The web based system 24 hours a day 7 days a week, 365 days a year
 - ▶ What are the implications?
 - ▶ → the Infrastructure, the Online Testing, Maintenance Support, Fire Fighting
 - ▶ The user manual, The Maintenance Team – enhancement, program bug fixing, user training and documentation for I.T. colleagues, for program admin. Personnel, for Teacher who enters the system for their module uploading, for students who downloads different module's module learning material, for Program. Admin personnel who will post announcements, download learning material for movement of teaching faculties (our research found that our Program Admin personnel is very smart user, yet we do not know whether they like to maintain the system on their desktop or through central I.T. service→

The application development has gone through 4 releases - Release 1.0 pilot research mode, to Release 2.0 (No database required) for Innovative users, to Release 3 (users manage their own database using Microsoft Access) for Highly Innovative users, and Release 4.0 (Database on Network based on Microsoft SQL Server 2016 (under construction)) for Traditional users. → it should be confusing to our user and/or to our audience during the Conference presentation!!!

Changes from Version 1 and 2 to Version 3 - now 9 Systems

- ▶ Why such a change from 5 systems to 9 systems?
- ▶ “Customer First” approach by I.T. Developers:
 - ▶ Yes it is good to provide rich facilities for each Module Lecturer, BUT the development effort and maintenance (such as hyperlinking the systems to the School web site to the particular programme) effort may be 2-4 times more
 - ▶ → nevertheless the Microsoft Development Platform Visual Studio Community 2017 plus the Microsoft SQL Server RAPID APPLICATION DEVELOPMENT platform (you may ask: What is it all about???) in our innovative approach and object oriented development paradigm forms the basis of our confidence in developing State-of-the-Art Microsoft New Platform Web based application for our users (students, teaching faculty, program admin. Personnel
 - ▶ **THEN, are we going to benchmark OR to challenge the functionalities of eLearning platforms and tools like Canvas, FutureLearn, Blackboard etc.???**
 - ▶ **→ nevertheless our system (though looking very complicated, follows a disciplined development approach and practice): ease of expansion, ease of use, ease of maintenance, but that needs our eLearning TedTalk YouTube Channel Channel**
 - ▶ <https://www.youtube.com/channel/UCclr6GAftYq0DNpOtuoVMXQ>

<https://www.youtube.com/channel/UCclr6GAftYq0DNpOtuoVMXQ> (highlight, right click)

8-10 TedTalk YouTube files
MOOC courses
Find the one
NewPlatformFSTE24Nov2017
(after Q&A time)

New Platform ERS100 Electronic Resource System Version control from Version 1 (3 Nov 2017) to Version 3 (13 Nov 2017)

Student Login and Download System

<http://144.214.177.88/ers100/studlogin.aspx>

Teacher Login and Upload System

<http://144.214.177.88/ers100/teaclogin.aspx>

Program Admin. Login and Announcement System

<http://144.214.177.88/ers100/padmlogin2.aspx>

Program Admin. Add User Password (for Student) System

<http://144.214.177.88/puseradmstud>

Program Admin. Add User Password (for Teacher) System

<http://144.214.177.88/puseradmteac>

Version 3: above, plus 4 systems for 4 Modules – one system for each Module

Teacher Upload System (for Module M101 – Programming, by Teacher Chan)

<http://144.214.177.88/ers100/teacloginM101.aspx>

Teacher Upload System (for Module M102 – Design, by Teacher Cheung)

<http://144.214.177.88/ers100/teacloginM102.aspx>

Teacher Upload System (for Module M103 – Project Work, by Teacher Lee)

<http://144.214.177.88/ers100/teacloginM103.aspx>

Teacher Upload System (for Module M110 – Dissertation, by Teacher Mak)

<http://144.214.177.88/ers100/teacloginM110.aspx>

Version Log: Project started 5 July 2017, 5 Aug 2017

Version 1: Thu 3 Nov 2017 - System for all functions of teacher upload, student download, program admin upload and download; **1 System.**

Version 2: Tue 7 Nov 2017 - Separation of user and password access - one system for Student download, one system for Teacher upload, one system for Program Admin. upload (and download), one system for user password admin for student, one system for user password admin for teacher, plus; **5 Systems.**

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- ▶ The Research Component ---Topic “User IT Application Affinity (USITAA)” - what is it? Microsoft has user device system affinity
- ▶ <https://technet.microsoft.com/en-us/library/gg699365.aspx>
 - ▶ User device affinity in Microsoft System Center 2012 Configuration Manager is a method of associating a user with one or more specified devices. User device affinity can eliminate the need to know the names of a user’s devices in order to deploy an application to that user. Instead of deploying the application to all of the user’s devices, you deploy the application to the user. Then, user device affinity automatically ensures that the application install on all devices that are associated with that user.
- ▶ Our Research: If user has high IT Application Affinity, put the system in the user’s desktop machine with local database management system such as Microsoft Access 2016, otherwise put the system in a central IT support location running Microsoft SQL Server 2016 Database Management System
- ▶ Research tasks: we want to classify all **program admin personnel** into either USITAA1 (yes affinity, able to manage the local database for web access), OR USITAA 0 (no, let the IT support team put the system into Microsoft SQL Server 2016 central database location)
- ▶ How many **program admin personnel** here in this seminar presentation?
- ▶ How many **program admin personnel** classify themselves as USITAA1, how many classify themselves as USITAA0?
- ▶ Can we conclude that most of them belong to the USITAA0 category, why?
- ▶ Can we do this survey for ALL **program admin personnel** in ALL FSTE member institutions?

Research on eLearning Platform, MOOC and other eLearning tasks that needs I.T. support

Done

E-Learning Platforms Used in FSTE Members.xlsx



Sheet1

Sheet2

Sheet3

Caritas Hong Kong	
Caritas Bianchi College of Careers	Moodle
Caritas Institute of Higher Education	Moodle
City University of Hong Kong	
School of Continuing and Professional Education (SCOPE)	Canvas
Community College of City University (CCCU)	Canvas
Hong Kong Baptist University	
School of Continuing Education (SCE)	Moodle
Hong Kong College of Technology	
Hong Kong College of Technology	Blackboard
Hong Kong Institute of Technology	
Hong Kong Institute of Technology	Moodle (for AD/D)
Lingnan University	
Lingnan Institute of Further Education (LIFE)	Moodle
The Chinese University of Hong Kong	
School of Continuing and Professional Studies (CUSCS)	Moodle
The Hong Kong Polytechnic University	
College of Professional and Continuing Education	Moodle
The Hong Kong University of Science and Technology	
College of Continuing and Professional Education	Nil
The Open University of Hong Kong	
The Open University of Hong Kong	Online Learning Environment (OLE)
The University of Hong Kong	
HKU School of Professional and Continuing Education (HKUSPACE)	SOUL 2.0
Vocational Training Council	
Vocational Training Council	Moodle

Innovative learning and teaching has been a worldwide trend conducive to effective learning. It is a proactive approach to integrate new teaching strategies and methods into classroom. Meaningful learning may develop students' capability to test and apply ideas and information, generate evidence; and further manage their learning experience. Innovative teaching cannot replace traditional teaching methodology but rather supports it. This conference aims to provide a platform for all stakeholders, including educators, lecturers and researchers to exchange idea and experience, and inform latest trends and development in learning and teaching. The half-day conference will include a keynote speech by Mr Simon Nelson, Chief Executive of FutureLearn, to be followed by a panel presentation, discussion and parallel sessions.



Caritas - Hong Kong

- Caritas – Hong Kong (1953)
- Caritas Community & Higher Education Service (1963)



City University of Hong Kong

- City University of Hong Kong (1984)
- School of Continuing and Professional Education (1991)
- Community College of City University (2004)



The Open University of Hong Kong

- The Open University of Hong Kong (1987)
- Li Ka Shing Institute of Professional and Continuing Education (1989)



The University of Hong Kong

- The University of Hong Kong (1911)
- HKU School of Professional and Continuing Education (1956)



Hong Kong Baptist University

- Hong Kong Baptist University (1956)
- School of Continuing Education (1975)



Hong Kong College of Technology

- Hong Kong College of Technology (1957)
- HKCT Institute of Higher Education (2014)



Vocational Training Council

- Vocational Training Council (1982)



Hong Kong Institute of Technology

- Hong Kong Institute of Technology (1990)



Lingnan University

- Lingnan University (1967)
- Lingnan Institute of Further Education & Community College at Lingnan University (2001)

Associate Member



Yew Chung Community College

- Yew Chung Community College (2008)

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- ▶ Acknowledgement (in alphabetic name sequence): Great thanks to the following colleagues **and students** on this exciting Learning Support IT system project

Chang Jason (User IT support, project initiator)

GRACA Jorge (User IT support, and User Support)

Ma Louis Director of SCOPE (eLearning initiative, software acquisition)

Siu Brian (contributing author, Developer of the ERS100 system)

Student (Full degree year 1 student, participating in Demo)

Student (Wed 15 Nov 2017: T w o Full Degree Year 1 students - they like individual Module Drop Box

O n e 4-year Degree Graduate Student on Graduation Ceremony Day - they like individual Module Drop Box

Yiu Raymond (User IT support, project initiator, Microsoft SQL Server 2016 purchase)

Yang Ruby (contributing author, participating in Demo)

Yu Jess (User Program Admin., “User Friendly function” request)

✓ We shall adopt the “Individual Module Drop Box, plus Announcement Drop Box” model as suggested by students and the Program Admin.

Per

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City University of Hong Kong
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For The World

SCOPE
School of Continuing and Professional Education
專業進修學院

cstud
Participants download lecture materialotes.
the lecture material come from different teachers, each teacher with one download dropbox!

Please click the Download buttons below:

Announcements ✓

Module 101 - Programming, by Teacher Chan ✓

Module 102 - Design, by Teacher Cheung ✓

Module 103 - Project Work, by Teacher Lee ✓

Module 110 - Dissertation, by Teacher Mak ✓

~~Download~~

Conclusion: we shall adopt the individual Module Drop Box, plus Announcements Drop Box

1 Full Year Degree student tried out the Download Box - said "Loving It", convenience, speed.

2 Full Year Degree students on Wed 15 Nov 2017 tried out, prefer Module Box for each Module, because - Download box may contain too many files, - they like to search by Module

One 4-year Degree graduate of Management science also like the search by Module



www.shutterstock.com - 132708305

The fined tuned systems :
Total 9 systems
are ready for the First Launch
November 2017
— after
database and
application
software
installation

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- ▶ Without a eLearning Platform like Canvas (CityU), Moodle (Napier, UK), Blackboard (Hong Kong College of Technology), how can I.T. support help in the learning process?

Q&A

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- ▶ Future Work:
- ▶ Innovating New I.T. applications for Learning, and Programme Admin. Functions,
- ▶ Providing a fast, efficient web based I.T. support application platform for programmes with or without eLearning platform
- ▶ Research on Social Media Engineering, Smartphone based teacher-student interactions
- ▶ And,
- ▶

Thank You for attending!