

DRAFT

Introducing **EXAMPLE**

UW Extension Authoring for Mobile Personal Learning Enviornments

An ICS Mobile Learning Initiative

Eddie Loo, Ph.D.

Director

Instructional Communications Systems
Division of Broadcast and Media Innovations
University of Wisconsin-Extension

Susan Speth

Web Designer

EXAMPLE/Trapeze

Instructional Communications Systems
University of Wisconsin-Extension

Ryan Somerville

Web Developer

EXAMPLE/Trapeze

Instructional Communications Systems
University of Wisconsin-Extension

Introduction

Instructional Communications Systems' (ICS) mobile learning platform **EXAMPLE** was designed around three tenets and best practices for mobile learning: (1) students and instructor(s) are co-creators of knowledge and co-contributors to the learning process; (2) students learn best when they can set their own learning goals and manage their own learning, and; (3) mobile devices are best used to extend and expand the learning contexts of the learning community.

The core capabilities of **EXAMPLE** are its ability to allow learners to easily create and contribute to the knowledge base of the learning community, and the ability to allow learners to manage their own learning through a personalized learning environment (PLE).

EXAMPLE pedagogy and engine

At the heart of **EXAMPLE'S** engine are **content blocks**. A content block is a portable instructional element consisting of learning objects and instructional activities sequenced and designed to support an instructional goal or an enabling-objective. Both instructors and learners create and contribute to the knowledge base by authoring content and customizing instructional activities using content blocks (instructors have additional authoring capabilities). Content blocks are further designed to be used and re-used with other content blocks to create a learning experience that fulfills a learner's self-directed learning goal. Content blocks use the Lego metaphor. As a self-contained, portable instructional element, learners use content blocks in a personal learning environment to organize and sequence content and activities to support a self-directed learning need. When their learning needs change, different permutations of content blocks are used. In order to be effective, content blocks and associated supporting elements have the following characteristics: (1) portability, the ability to be used, re-used, and, adapted to different learning goals; (2) support for self-directed goals, the ability for learners to be able to customize a learning experience aligned with their own self-directed goals; (3) access, the ability for learners to participate and contribute to the body of knowledge in specific and differing contexts. These characteristics are expressed through the design elements in **EXAMPLE**.

A learning-community centered design

A learning community is a group of people who have a shared interest in an area of study and brings a diversity of perspectives and a range of skills and abilities to produce knowledge as a shared goal (Bransford et al., 2000). **EXAMPLE** was designed with the premise that learners are co-creators and co-contributors to the knowledge base and therefore learners should have access to advanced instructional authoring capabilities to fulfill that role. However, providing learners with access and advanced authoring capabilities are in themselves necessary, but insufficient conditions to promote an effective learning community. For Bransford et al, environments that best promote learning will have four interdependent aspects: a focus on the learners; well-organized knowledge; assessment; and a focus on the community. **EXAMPLE** addresses the four interdependent aspects as follows:

Learner-centeredness - Content blocks give control to the learner to utilize the instructional tools to translate their knowledge, skills, attitudes, and beliefs into instructional objects, thereby contributing to the learning process.

Knowledge-centeredness - Content blocks are designed with an intuitive interface that allows learners to easily create well-organized bodies of knowledge.

Assessment-centeredness – Content blocks have built in assessment tools designed for formal and informal feedback opportunities.

Community-centeredness – Content blocks gives learners access and tools to contribute to the knowledgebase. This forms the basis and opportunity for learners to learn from one another.

Personalize Learning Environments (PLE)

A personal learning environment (PLE) is a learning system that helps learners take control of and manage their own learning. This includes providing the learner with the capabilities to: (1) set their own learning goals; and (2) manage their learning by organizing the appropriate content to support those goals.

EXAMPLE is designed to support two simultaneous learning paths; a path prescribed by the instructor and self-directed paths decided by the learner. One of the operational principals of content blocks is portability and it is this portability that allows content to be used in the various paths. When content is created via content blocks, they are sequenced in the prescribed path designed by the instructor. Additionally, **MyPLE** in **EXAMPLE** gives learners the ability to organize, select, and, sequence content outside of the prescribed path.

Contribute anytime, anywhere

In order for learners to extend and expand the learning contexts of the entire learning community, learners must be able to create content, interact meaningfully with other learners, and interact meaningfully with content via their mobile devices. A mobile device is often an appropriate proxy for a learner's unique physical and non-physical contexts. A physical context could be a location or geography; a non-physical context could be a creative or reflective state of mind.

EXAMPLE is 100% mobile organic. It was designed and developed for mobile learning. All instructional tools in **EXAMPLE** are accessible via mobile devices. Mobile interaction with content, instructors, and other learners is further reinforced through best practices governed by instructional design for mobile learning.

How EXAMPLE works

One App, One Course

Each course in **EXAMPLE** exists as an individual App. Instructors and learners install the course of choice on their mobile device(s) from the app stores. Apps can be downloaded onto multiple devices, across mobile operating systems. A learner gains access to the course through a secured



INST 1010

sign-in protocol, regardless of device(s) used.

EXAMPLE's interface consists of a home page and three elements: Syllabus, Search, and MyPLE.

Child Protection Field Workers



This course will introduce you to some of the most important areas of research in instructional design for mobile learning. Each week a different instructional designer will talk you through some of the most important pedagogical ideas and issues in their area of expertise.

Instructor: Dr. Nancy Mock

Semester: Fall 2014

Field Trips: 2

Credits: 3

 Home

 Syllabus

 Search

 MyPLE

Home page

The home page is the course landing page. The home page contains basic description of the course. This includes but not limited to course title, course number, course section, instructor, number-of-credit(s), course pre-requisites, and navigational tools.

▼ About the Course

Contribute View Content (1)

Welcome to SPHU 1010 course

This course will introduce you to some of the most important areas of research in instructional design for mobile learning. Each week a different instructional designer will talk you through some of the most important questions and issues in their area of expertise.

[Assessment](#)

[Student Participation](#)

[Grading](#)

[Using EXAMPLE](#)

▶ Week 01

▶ Week 02

Syllabus

The *syllabus* is the space where learners gain access to instructor created content and activities. This is the instructor-prescribed path of learning area. The syllabus is composed of a series of instructional units chunked into modules, weeks, topics, and or other useful units of chunking. The first instructional unit of *syllabus* is ***About the Course***. Faculty use this area to author logistical and administration information about the course.

Instructors author content either on mobile devices or on a computer. Instructor's authoring capabilities include: text, media, documents, links, images, communications tools, and, assessments tools. In addition, instructors have the ability to allow students to create content associated with an instructional unit. Learners use content blocks to create content which is added and sequenced in that instructional unit.

▶ About the Course

▼ Week 01

Contribute View Content (4)

Constructivism:

Our mission for this week is to try and understand a little bit about what philosophy, as a subject, actually is.

1. What makes it different from other subjects?
2. What are its distinctive aims and methods?

[Part 1: Introduction: What is Philosophy? \(12:30\)](#)

[Part 2: Philosophy: Difficult, Important and Everywhere \(11:02\)](#)

[Part 3: Philosophy: How Do We Do It? \(17:04\)](#)

[Part 4: Is There A 'Right Way' To Think About Things? \(6:27\)](#)

DRAFT

Week 01 (9)

Title *

- ▶ Links
- ▶ Document
- ▶ Description
- ▶ Image(s)
- ▶ Youtube Video

Save

Home

Syllabus

Contribute

Contribute gives learners and other participants of the course the ability to author content via content blocks. Learners author content either on mobile devices or on a computer. Authoring capabilities include: text, media, documents, links, images, quizzes, chats, private messaging, and crowd sourcing.

All content created via the content blocks appears sequenced in the instructional unit that it was created in, as well as in the course database accessible via **MyPLE**.

My internship in Uganda
Comments (2)
Week 01
[A weekend in Zanzibar](#) 



History of Gagne
Comments (2)
Week 01
Gagne was a French man who was credited with developing the concept of 7 conditions of learning.

1. Attention.
2. Activation of Prior knowledge
3. New concept.

Home

My PLE

MyPLE or my personal learning environment is the space where learners can organize, select, sequence content outside the prescribed path of the instructor. For example a learner may need to review the material for a particular topic. MyPLE gives the learner the capability to organize the relevant materials to support a particular learning goal.

DRAFT

Keywords

Text editor test by eddloo
Upload feature working by ryan  
Eddie new test by eddloo

[Home](#)
[Syllabus](#)
[Search](#)
[MyPLE](#)
[Logout](#)

Search

All content created appears in the course database and can be searched and added to the content in MyPLE. Searches are commonly done via keywords, or by creators.

Manage Users

Active

Susan.speth	✓	edit
Mobile app user	✓	edit
apapendieck	✓	edit
ryan_1	✓	edit
eddie.loo	✓	edit
eddielgloo	✓	

Manage Users

This is an instructor only area that allows instructors, TAs, and administrators to manage user accounts. Accounts information, approvals, and upgrades are performed here.

Course Content

Add Instructional Unit

About the Course

delete
edit

Week 01

delete
edit

Week 02

delete
edit

Week 03

delete
edit

Week 04

delete
edit

Week 05

Manage Content

This is an instructor only area that allows instructors to author content.

Instructors are able to add instructional units to the course, as well as author content within each instructional unit.

Conclusion

The **EXAMPLE** prototype was completed in October, 2013. The system is currently fully functional and being used as a proof-of-concept in a number of initiatives. Immediate and near-term plans include improving the usability and scalability of **EXAMPLE** and stress-testing the system for enterprise-wide use. Individuals interested in finding out more about the **EXAMPLE** system or getting involved as a strategic partner can contact the authors of this paper for more information.

References

Bransford, J.D., Brown, A.L. and Cocking, R.R., (Eds.). (2000). *How People Learn: Brain, Mind, Experience and School*. National Academies Press.

About the **EXAMPLE** Team

Eddie Loo is Director for Instructional Communications Systems (ICS) at University of Wisconsin Extension. He was appointed Director in July, 2010. Prior to his current position, he served as Director for Continuing Education and Professional Development at Iowa State University and before that he was Director for the Center for Innovative Learning and Director for Online Learning at Utah State

DRAFT

University. Eddie received his B.S. in Economics and Psychology from University of Calgary and his M.S. and Ph.D. in instructional technology from Utah State University. Eddie is a graduate of Harvard Kennedy School in crisis management.

Address: The Pyle Center
702 Langdon Street, suite 333
Madison, WI 53706
Email: eddie.loo@ics.uwex.edu
Phone: 608-516-6639

Susan Speth is a Web Designer for Instructional Communications Systems (ICS) at University of Wisconsin Extension. Susan has been on the ICS team for over 7 years. She is an experienced designer with a background in art, graphic design, and programming. Susan specializes in web design, graphics creation, CSS, usability and accessibility standards, as well as mobile design. She received her B.S. in Art, with a concentration in graphic design, from the University of Wisconsin-Madison.

Address: The Pyle Center
702 Langdon Street, suite 333
Madison, WI 53706
Email: susan.speth@ics.uwex.edu
Phone: 608-262-0737

Ryan Somerville is a Web Developer for Instructional Communications Systems (ICS) at University of Wisconsin Extension. Ryan is an experienced developer and specializes in Drupal and mobile application development.

Address: The Pyle Center
702 Langdon Street, suite 333
Madison, WI 53706
Email: ryan.somerville@ics.uwex.edu
Phone: 608-263-1134