Digital Learning Continuum

A scale of learning from traditional face to face to online learning. The digitally enhanced and hybrid learning model falls in between these two teaching styles.
Digital Learning Definitions

**Traditional** (appx. 0-5% online)
A course that uses a course website and some email communication – content is mainly delivered in writing or orally.

**Digitally Enhanced** (appx. 6%-29% online)
A course that may have some content (recorded lecture) and course activities online, but otherwise the course meets and is implemented as a traditional face-to-face course.

**Hybrid/Flipped** (appx. 30%-79% online)
A course that pedagogically blends online and face-to-face delivery. Substantial proportion of the content (e.g., microlectures) and student learning activities are delivered online. Often includes reduced seat times.

**Online** (appx. 80-100% online)
A course where most or all of the content is delivered online. Typically these have no face to face meetings, and all classes and curriculum is supported via digital methodology and toolsets.

**“Flipped”/Hybrid**

NOTE: 1990’s Sloan Consortium definitions, not endorsed by any campus entity. Instead used to distinguish modes of instruction.
“...the course is going well and the goals I envisioned are being met for most students. Some students have expressed increased confidence in discussing published papers and engaging with data, even in other courses.”

- Prof. Khaleel Abdulrazak
Welcome to Lour La Lune.

Have you ever been curious about understanding how time was tracked before our modern Gregorian calendar? Have you possibly found a medieval calendar and have no idea how to read it?

This site looks at two specific manuscripts (URC012 and URC013) and uses them in order to help us understand how to read medieval calendars.

So where do we start?

First, why Medieval Calendars?

Next, take a look at the Calendar:

UCR012, January and February

UCR013, March and April

Now, learn how to read Medieval Calendars.

Once you have figured out how to read Medieval Calendars, it’s time to put your knowledge to the test and check out some mistakes in time.
Use of fossils to give the relative age of the rock.

Example of a fossil: the trilobite....
<table>
<thead>
<tr>
<th>Traditional</th>
<th></th>
<th>Completely Online</th>
</tr>
</thead>
</table>

Hybrid/Flipped:
David Oglesby & Corrie Neighbors [Geoscience]
Online:
Frank Vahid & Brian Linnard [Engineering & Computer Science]
Online: Juliette Levy [History]

DIGITAL ZOMBIES

1. Students risk becoming digital zombies
2. Librarians
3. The game
4. Outcome

Students risk becoming digital zombies. Must teach students how to do research beyond Wikipedia.
Librarians as key partners but traditionally left outside the classroom.
The game: Missions take students through scaffolded learning experience. It is experiential, social, and for credit.
Outcome: Meaningful play = meaningful learning. 100+ students happy/librarians onwards to 1000 students.

Completely Online
UC Riverside faculty have identified the items below as key success factors for enhancing instructional effectiveness and enabling student success. Many of these components are already in place while others are being developed in partnership with the Vice Provost of Undergraduate Education, UCR’s Libraries, and faculty at large. UCR’s roadmap relating to tools and approaches enabling digital instruction, enhanced pedagogy, active learning, and ultimately greater student success will continue to evolve via these existing partnerships, the creation of new partnerships, and the adoption of innovative technologies and approaches over time.

One Source: Curated Resources
(e.g. Engage Website)

Tools: Digital Environment
(e.g. iLearn)

Learning Science Research Support
(e.g. SoTL, ID team)

Experimental Learning Spaces
(e.g. Surge 170)

Consulting, Workshops & Institutes
(e.g. ID Team | Multimedia Team)

Communication & Transparency
(e.g. Newsletter, 430+ Listerv)

Leadership Endorsement
DETAIL @ UCR – DIGITAL LEARNING SUPPORT PERFORMANCE METRICS

DIGITAL LEARNING @ UCR
COMPUTING & COMMUNICATIONS
Instructional Design Team

UNIVERSITY OF CALIFORNIA, RIVERSIDE
The below graphs are indicative of the broad utilization and engagement of iLearn by UCR students.

On iPads and Peer Review:

“I’ve actually been doing this for 3 years, and the first year we used paper to do the peer reviews, and found out that we got about a 50% response rate. So out of all that, basically the students were only completing them about 50% of the time and they were only there about half of the group assignments. Now when we started going into using the tablets and going through iLearn, something interesting happened. We had to spend about 15 minutes giving an overview on what to do, but they picked it up right away. And by using the technology, my response rate went from a high of 60%, to now I have 95 to 100% response rate. Suddenly the students in both spectrums, both in the classroom and online, I’m hitting a near 100% response just by the brief introduction of the technology.”

Thomas Fryer - MSOL Lecturer, Mechanical Engineering
The below graphs highlight the ongoing utilization of technology to enhance the learning experience at UCR. MediaSite is UCR’s video repository that enables users to view media rich content and lecture captures directly from the iLearn platform.

The average presentation length is 0.85 hours. In December 2015, movies were also being uploaded which increased the average length.

On Using iLearn:

“i use iLearn EVERYDAY. It’s mostly the grades and the courses, and in the courses I always go to the course materials because that’s where they give you the homework, lectures, so you can study for the mid-terms and finals…”

Manuel Flores – Biochemistry Major
Dashboard – Workshops & Learning Glass

The below graphs showcase the ongoing outreach to faculty by the Instructional Design team to assist with enhanced pedagogy, by way of Workshops and Learning Glass technology.

Please note that the metrics captured from the past year reflect the efforts of a newly formed UCR instructional design team. These metrics do not include special events, panel discussions, or partnership events.

Regarding the impact of working with Instructional Design:

“Knowing that the capacity to work with the designers is there, has already made me think more creatively about the kinds of things I want to do in the classroom in the future.”

Andrea Denny Brown – Associate Professor, English

Note that the Learning Glass modules deployed in each quarter may include videos recorded from earlier quarters.
## Digital Learning Strategy: Workshops

### Learning Management System
- iLearn Tools for Student Engagement
- Tests and Quizzes in iLearn
- Video in iLearn
- iLearn Grade Center
- Posting Video to iLearn
- Video or Multimedia Mashups in iLearn
- Rubrics & iLearn Strategies

### Technology/Tools
- Learning Glass Showcase
- How Use of Clickers Increases Student Engagement
- “Make any Whiteboard a Smartboard”
- Teaching large courses
- Groups & Team Based Learning

### Other Workshops
- Nuts & Bolts: Flipped Classrooms
- Multimedia in PowerPoint Plus New Features for Windows 2013
- Resources and Support for Instructional Initiatives
- Grade Center and Inline Grading, iGrade, and iEval
- Multimedia Assignments
- Copyright/Intellectual Property
Digital Learning Strategy: Panels

Attendance has been between 20-44 individuals for panel discussions, and has included faculty, staff, administration, and graduate students.

Panels/Discussions

- Conversations with Master Teachers
- Piazza Panel Discussion
- Blended/Hybrid/Online Discussion - "Nuts and Bolts of a Flipped Classroom"
- Re-Thinking the Classroom
- UC Innovative Learning Technology Initiative (ILTI) Proposal Workshop
- Rethinking the Classroom with Digital Technologies
- Engage Innovation Online Panel
- Faculty Interactive Panel Discussion

The ultimate goal of panels and discussions is to build a campus-wide learning and teaching community.
On using Tablets and Zoom In Class:

“The key thing for me on the iPad side is that they can interact with that however they want to, to whatever extent they want to, and in a completely intuitive way, and that really comes from using zoom. In terms of how I feel when I’m in the class I don’t feel like I’m in a class of 220 students, I feel like I’m in a class of maybe 40-50… I noticed that there’s increased engagement as the students are taking advantage of having the tablets and being able to control the screen. I also find that when I ask a question and ask people to put it on the tablets, I often have more responses than if I just asked them to raise their hands and say something.”

Joseph Genereux - Assistant Professor, Chemistry
Currently, 39 Faculty members have participated in a Course Consult of some kind.

<table>
<thead>
<tr>
<th>Professor</th>
<th>Title</th>
<th>Department</th>
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<tbody>
<tr>
<td>Khaleel Abdulrazak</td>
<td>Associate Professor</td>
<td>Psychology</td>
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<tr>
<td>Robert Allen</td>
<td>Assistant Professor of Earth Sciences</td>
<td>Earth Sciences</td>
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<tr>
<td>Sandra Baringer</td>
<td>Lecturer</td>
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<td>Sheryl Berg-Ridenour</td>
<td>Lecturer</td>
<td>School of Business Administration</td>
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<tr>
<td>Luis Brunstein</td>
<td>Visiting Assistant Professor</td>
<td>Economics</td>
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<td>Curt Burgess</td>
<td>Professor of Psychology</td>
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<td>Peter Chung</td>
<td>Professor of Finance</td>
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<tr>
<td>Eddie Comeaux</td>
<td>Associate Professor</td>
<td>Grad Student</td>
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<td>Shan Crites</td>
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<tr>
<td>Andrea Denny-Brown</td>
<td>Associate Professor of English</td>
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<td>Jack Eichler</td>
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<td>Theodore Garland</td>
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<td>Joseph (Joey) Genereux</td>
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<td>Tamara Ho</td>
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<td>Nigel Hughes</td>
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<td>Bradley Hyman</td>
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<td>Erith Jaffe-Berg</td>
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<tr>
<td>Robert Lam</td>
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<td>Star Lee</td>
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<td>George Meier</td>
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<tr>
<td>Hamed Mochsen-Rad</td>
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<td>Hyunj Nah</td>
<td>Acting Assistant Professor</td>
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<td>Corrie Neighbors</td>
<td>Lecturer</td>
<td>Earth Sciences</td>
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<tr>
<td>David Oglesby</td>
<td>Chair, Professor of Geophysics</td>
<td>Earth Sciences</td>
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<tr>
<td>Richard (Rick) Redak</td>
<td>Professor of Entomology and Department Chair</td>
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<tr>
<td>Jacqueline Shea-Murphy</td>
<td>Associate Professor</td>
<td>Dance</td>
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<tr>
<td>Dana Simmons</td>
<td>Associate Professor of History</td>
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<td>Richard Smith</td>
<td>Professor of Finance, Philip L. Boyd Chair</td>
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<tr>
<td>Nanping Yu</td>
<td>Assistant Professor</td>
<td>Electrical &amp; Computer Engineering</td>
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Digital Tools Adopted at UCR

Learning Platforms / Software
• **iLearn**: Learning Management System (Across Campus)
• **Examity**: Online Test Proctoring Tool (School of Engineering)
• **SoftChalk**: Interactive web-based, multimedia development tool
• **Piazza**: Wiki/Discussion Board (History, Engineering & Geosciences)
• **Virtual Lab**: UCR students to use software without having to download (School of Education)

Polling
• **Clickers**: Polling Devices (Across Campus)
• **Kahoot!**: Free Game-based Learning Platform (School of Medicine)

Video
• **MediaSite**: Video Platform (Media Studies, Multimedia Library)
• **Zoom.us**: Web-Conferencing (Psychology, History, Geoscience, etc.)

Hardware
• **Catch Box**: Throw-able Microphone (UNLH 1000, INTN 1020, LFSC 1500)
• **iPads for Instruction**: iPads (44) for use in the classroom (Orbach Library & Chem 1A)
• **Learning Glass**: Interactive Panel & Paint Pens (Humanities)
Dashboard – Clickers Impact

Total seats using clickers has increased by more than 10,000 since its inception. Seats are based on enrollment across classes, not individual students.

227,427 “Seats” Using Clickers

14,308 total seats based on enrollment (Fall 2015)

Average Number of Courses Using Clickers for Fall 2015 and Winter 2016 = 77.
A course is comprised of a sequence of class instances.
Interest for Learning Glass is spread across a wide array of departments.

Despite being a new tool, Learning Glass interest is growing across multiple positions, especially with Professors and Assistant Professors.
<table>
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<th>Learning Model</th>
<th>Digital Implementation</th>
<th>UCR Current Offerings</th>
<th>Technologies</th>
<th>Partnerships</th>
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</thead>
<tbody>
<tr>
<td>Traditional</td>
<td>Approximately 0-5% Online</td>
<td>• Workshops • iLearn (Syllabus)</td>
<td>• Chalkboard • Overhead projectors • PowerPoint</td>
<td>• New Faculty Orientation Series • Office of Assessment</td>
</tr>
<tr>
<td>Digitally Enhanced</td>
<td>Approximately 6-29% Online</td>
<td>• Workshops • Instructional Consults • Digital Learning Tool Environment (Clickers, Learning Glass, etc.)</td>
<td>• Zoom Web Conferencing • Flex Classrooms • Smart Board • iLearn LMS</td>
<td>• VPUE Instructional Grants • Library Academy</td>
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<td>Faculty Principle Investigator</td>
<td>Department</td>
<td>Course Name &amp; ID</td>
<td>Award Type</td>
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<td>Jacqueline Shea Murphy</td>
<td>Dance</td>
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UCR PROPOSED NEXT STEPS
DIGITAL LEARNING @ UCR
COMPUTING & COMMUNICATIONS
Instructional Design Team

UNIVERSITY OF CALIFORNIA, RIVERSIDE
Maintaining Momentum

Long-term Plan: Self-sustaining learning loop

LEARN (Core 8-Week Workshop)

At completion of 8-wk Workshop, earn certificate and become a recognized Innovative Teaching and Learning “FELLOW”

Participate on LEARNING COMMUNITIES

DESIGN/DEVELOP/IMPLEMENT own course

REFLECT/DOCUMENT on experience

CREATE A DIGITAL POSTER*
For a campus repository, document experience and how their course has changed – what challenge technology helped solve or in what way it enhanced the learning experience.

AUTHOR A PUBLICATION
- Hybrid/Online Learning
- Scholarship of Teaching & Learning
- Learning Science

LEAD A LEARNING COMMUNITY
Select a topic, modality, and framework.

Participate on an Upcoming Workshop as a PRESENTER/PANELIST

CREATE A DIGITAL POSTER*
For a campus repository, document experience and how their course has changed – what challenge technology helped solve or in what way it enhanced the learning experience.

AUTHOR A PUBLICATION
- Hybrid/Online Learning
- Scholarship of Teaching & Learning
- Learning Science

LEAD A LEARNING COMMUNITY
Select a topic, modality, and framework.

* Over time, these digital posters being created become an ever-growing repository of hybrid/online/innovation-infused course examples or prototypes, accessible by all UCs. May eventually even be made searchable by discipline, class size, etc.
Support Offerings Enabling Digitally Enhanced and Hybrid Instruction

The objective of UCR’s Digital Learning team of instructional designers and production staff is to promote student-centered pedagogy that results in consistently positive learning outcomes. The Digital Learning team is committed to fostering the development and support of UCR’s instructors who are capable of effectively and innovatively teaching within digitally enhanced, hybrid, and online learning environments.

UCR Instructional Designers are available to meet and dialog on the following topics. Collaborations are typically limited to one or two topics per one hour session.

Consultation Services around Pedagogy

- How to Obtain Services: TBD
- Contacts: TBD
- Eligibility: TBD
- Timeline for Service Delivery: TBD
- ID Support Topics (Each topic will have a web site / link): TBD
  - Pedagogical Approaches Aimed at Enhancing Student Engagement / Participative Learning
  - Course Approach / Content Organization
  - Learning Outcomes/Objectives
  - Content Organization
  - Learning Objects / Multimedia Development
  - Integration of Educational Technology Tools
  - Instructor-Student, Student-Student, and Student-Content Interaction Strategies
  - Assessment Strategies
  - Resource Strategy / Options
  - Other Online, Hybrid, and Digitally Enhanced Learning Special Projects

Consultation Services around Instructional Technologies, Services, and Tools

- How to Obtain Services: TBD
- Contacts: TBD
- Eligibility: TBD
- Timeline for Service Delivery: TBD
- ID Support Technologies: TBD
  - Instructional Technology / Approach One, Description, How Used (e.g. iLearn)
  - Instructional Technology / Approach Two, Description, How Used (e.g. Clickers)
  - Instructional Technology / Approach Three, Description, How Used Technology Three (e.g. Course Capture)
  - Etc.
Support Offerings Enabling Online Instruction

Online / Hybrid Course Creation - Two Quarter Initiative

- How to Obtain Services: TBD
- Contacts: TBD
- Eligibility: TBD
- Timeline for Service Delivery: TBD
- Course Buyout / Stipend: TBD
- Online / Hybrid Course Creation: TBD

Quarter One:
- Initial consultation and planning – Week One
- Profession Development – Weeks Three to Six
- Learning Outcomes
- Pedagogical Issues
- Course Design Approaches
- Enhancing Engagement – Tools and Techniques
- Technology Options
- Feedback and Assessment
- Resources / Funding
- Course Design – Weeks Seven to Ten

Quarter Two:
- Creation of Content
- Course Assembly
- Training / Delivery

Quarter Three:
- Course Delivery
- Assessment
- Publication of Reflections / Thoughts