



UNIVERSITY OF ILLINOIS
AT URBANA-CHAMPAIGN

Lecture Video Capture and Analytics on Illinois Media Space

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illinois.edu

Teaching Models

Face-to-Face

Online

MOOCs

Blended

Flipped

The Goal:

Face-to-Face with “Easy” Video Capture



Outline

- Features of Kaltura and Illinois Media Space
- Student Response and Learning Outcomes
- Mechanisms of Video Capture
 - Large Classroom
 - General Access Classroom
- Kaltura Analytics
- Future Opportunities:
 - online courses
 - e-Text



MCB 252 - Jan 29, 2016

MCB Summer 2016 Research Opportunities

I. MCB SROP
\$2,000 student stipend + \$500 for lab supplies

II. Jenner Family Summer Research Internship
\$5,000 student stipend

Applications Due February 12 by 5:00 PM
Complete details at: <http://go.illinois.edu/MCBSROP>

School of Molecular and Cellular Biology
University of Illinois, Urbana-Champaign

0:00 / 44:44

MCB 252 - Jan 29, 2016
From David Rivier 2 Days ago

Related Media

352 | 51:49

MCB 252 - Jan 22, 2016
From David Rivier A week ago

224 | 43:21

MCB 252 - Jan 20, 2016
From David Rivier A week ago

281 | 47:52

MCB 252 - Jan 25, 2016
From David Rivier 6 Days ago

Kultura and Illinois Media Space



Kaltura and Illinois Media Space

- Students can view lectures on any device
- Students can view at 1x, 1.5x or 2x speed
- Can pause, re-watch, “slide” to any section
- Can view at different resolutions
- Can access any time of day or night
- Easy to upload and edit videos
- Analytics



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- Features of Kaltura and Illinois Media Space
- Student Response and Learning Outcomes
- Mechanisms of Video Capture
 - Specialized Classrooms
 - General Access Classrooms
- Kaltura Analytics
- Opportunities to Improve Instruction
- Additional and Future uses of Videos



Students and Courses

MCB 252 Cells Tissues & Development 350-430 (mostly) Sophomores

MCB 317 Genetics and Genomics
175 Juniors and Seniors

Summer course, small, variable

Pre-Med, Pre-Health, Graduate School,
Biotechnology or Bio-engineering Industry



Students Survey

MCB 252 Cells Tissues & Development

Spring 2015

350 Students, Sophomores

66% response rate



Which of the following best describes your use of the lecture videos?

I use them on a regular basis:

I use them occasionally:

I use the videos rarely or not at all:



Which of the following best describes your use of the lecture videos?

I use them on a regular basis: 81.9%

I use them occasionally: 13.57%

I use the videos rarely or not at all: 4.52%



Which of the following best describes how you believe the lecture videos impacted your learning this semester?

I learned more this semester than I would have without the videos:

I learned less this semester than I would have without the videos:

The videos had little or no impact on how much I learned this semester:



Which of the following best describes how you believe the lecture videos impacted your learning this semester?

I learned more this semester than I would have without the videos: 90.0%

I learned less this semester than I would have without the videos: 3.2% **After Lecture Questions**

The videos had little or no impact on how much I learned this semester: 6.8%



I believe that having access to the videos
improved my grade in MCB 252.

True:

False:

Neutral:



I believe that having access to the videos improved my grade in MCB 252.

True: 90.8%

False: 1.3%

Neutral: 7.8%



Which of the following best describes your use of the lecture videos?

I typically go to lecture and occasionally watch the videos:

I routinely go to lecture AND watch the videos:

I routinely watch the videos instead of attending class:

I did not use the lecture videos:



Which of the following best describes your use of the lecture videos?

I typically go to lecture and occasionally watch the videos: 17.3%

I routinely go to lecture AND watch the videos: 46.4%

I routinely watch the videos instead of attending class: 32.8%

I did not use the lecture videos: 3.6%



Additional and Anecdotal Comments

Small Class Attendance does not Change When Video Recording Lectures

ESL students, Learning Disabilities

Absences

TA viewing

Easter Flu

Spring Break 2016: Friday and Monday



Which most accurately describes how/when you take notes?

I take notes in lecture only:

I primarily take note in lecture but supplement them by watching videos:

I do not take notes in lecture but do take notes when watching the videos:

I take approximately equal notes in lecture and when watching the videos:

I do not take notes:



Which most accurately describes how/when you take notes?

I take notes in lecture only: 5.0%

I primarily take notes in lecture but supplement them by watching videos: 25.6%

I do not take notes in lecture but do take notes when watching the videos: 46.1% [32.8% + 13.3]

I take approximately equal notes in lecture and when watching the videos: 16.9%

I do not take notes: 6.4%



Would you like to see other classes using Illinois Media Space

Yes

No



Would you like to see other classes using Illinois Media Space

Yes 94.52%

No 5.48%



Summary of Additional Responses

12% use regularly use audio recordings, 34% occasionally

65% said Important to be able to view at different speeds



Do Different Performing Groups of Students Use the Videos Differently?

Looked at student responses based on self-reported performance in the course



Which of the following best describes your use of lecture videos?

	All	>90	80-90	70-80	60-70	<60
Regularly	80%	80%	84%	81%	60%	100%
Occasionally	14%	13%	13%	15%	40%	0%
Rarely	4.5%	6.7	3.0%	4.3%	0%	0%



Which of the following best describes your use of lecture videos?

	All	>90	80-90	70-80	60-70	<60
Typically Lecture, Occasionally Video	17%	13%	18%	15%	20%	0%
Routinely Lecture and Video	46%	55%	49%	47%	50%	50%
Video instead of Class	33%	32%	30%	36%	30%	50%
Do not use videos	3.6%	5.0%	3.0%	2.1%	0%	0%

Which most accurately describes how/when you take notes?

	All	>90	80-90	70-80	60-70	<60
Lecture only	5.0%	12%	3%	0%	0%	0%
Lecture, vid suppl.	26%	28%	27%	23%	10%	50%
Primarily video	46%	38%	45%	53%	70%	50%
Equal	17%	13%	19%	17%	29%	0
Do not take notes	6.4%	8.3%	6.1%	6.3%	0%	0%

317 Genetics and Genomics



Grading in 317 Genetics and Genomics

	2015	2014	2013	2012	2011
A+	96.0+	96.0+	96+	95+	96+
A	88.0	89.0	88.0	88.0	88.0
B+	87.0	88.0	86.0	87.0	86.0
B	77.0	78.0	77.0	78.0	78.0
C+	76.0	77.0	76.0	77.0	76.0
C	66.0	67.0	66.0	66.0	68.0
D+	65.0	66.0	65.0	65.0	66.0
D	55.0	56.0	56.0	56.0	59.0
F	<55.0	<56.0	<56.0	<56.0	<59.0

25 % of the students in MCB 317 get A's



MCB 317 Genetics and Genomics

Exam 1 Sp14	85.6
Exam 2 Sp14	73.22
Exam 3 Sp14	81.1
Exam 1 Sp16	86.6
Exam 2 Sp16	83.5%

Historically 25% of students get A's
25% of the students > 88%

Right now 41% of the students > 90%

Guestimate usually 25% of students > 85%

The main difference from previous years = videos



MCB 317 Genetics and Genomics

	Sp15	Sp16
> 90	17%	41%
> 80	60%	76%
> 70	84%	91%



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- Mechanisms of Video Capture
 - Large Classroom
 - General Access Classroom
- Kaltura Analytics (Drew MacGregor)
- Opportunities to Improve Teaching
- Additional and Future uses of Videos



Video Capture

- Large Specialized Rooms
- General Access Rooms
- Ipad & Doceri



Why use Doceri and an ipad?

- Play Movies within Powerpoint
- Annotate Slides within the Video
 - “White Board Drawing”
- Record Video Directly on ipad
 - Post this talk on Illinois Media Space



Drawbacks of Video Capture

- Interaction with Students
- Technical issues
 - Network issues
 - Software updates
 - Desktop “flash”
 - Oddball issues: microphone, McAfee
 - Remembering to start recording
 - Pre-lecture setup time
 - Remembering to stop the video



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- **Kaltura Analytics**
- **Opportunities to Improve Teaching and Additional Possible uses of Videos**



Data

Total for Spring 2015	MCB 252 alone
5,193 media entries	45 entries
152,773 plays	24,373 plays
21,435 hours	10,488 hours

.86% of entries
16% of the plays
49% of the hours viewed



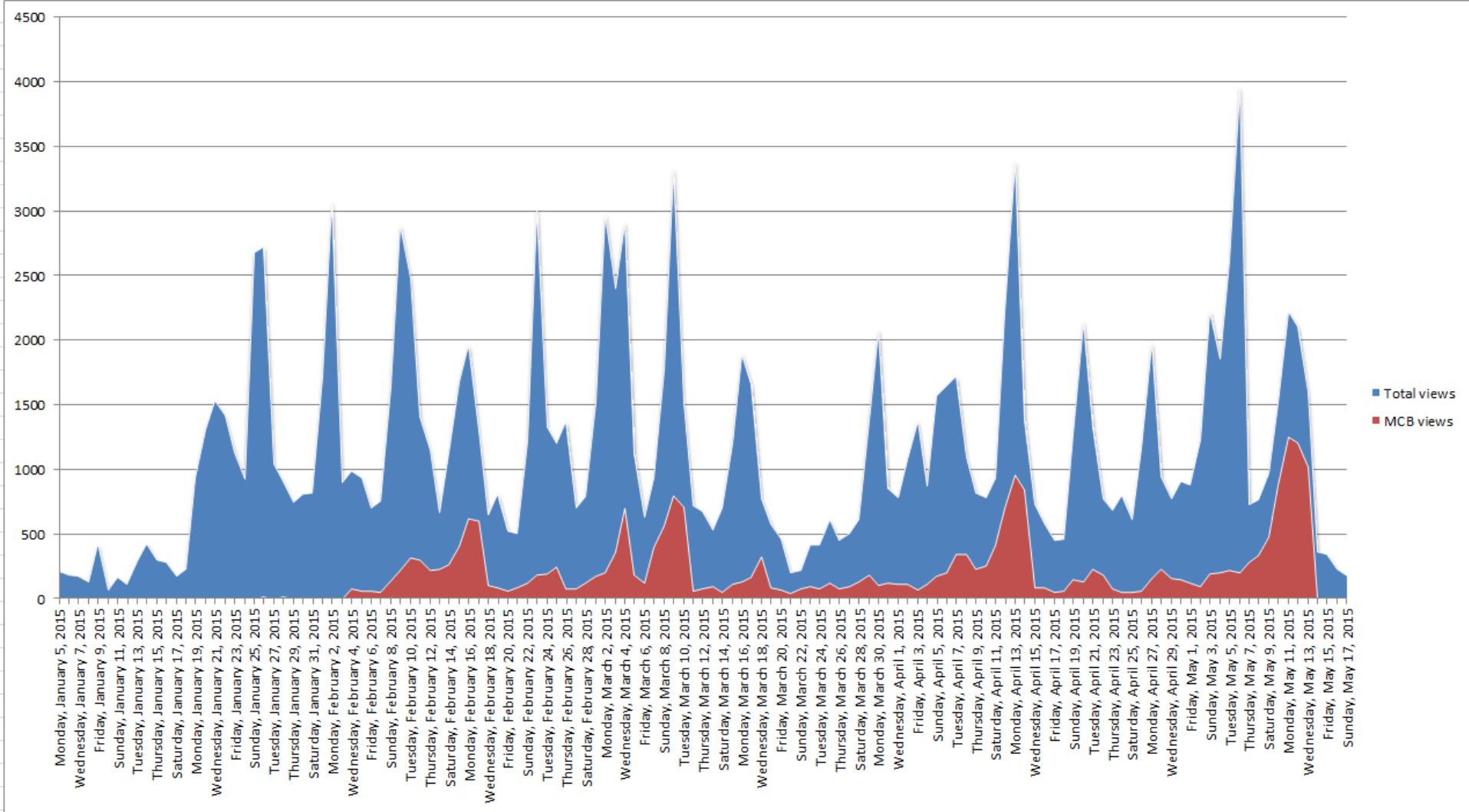
Where to from Here?

MCB Core Courses?

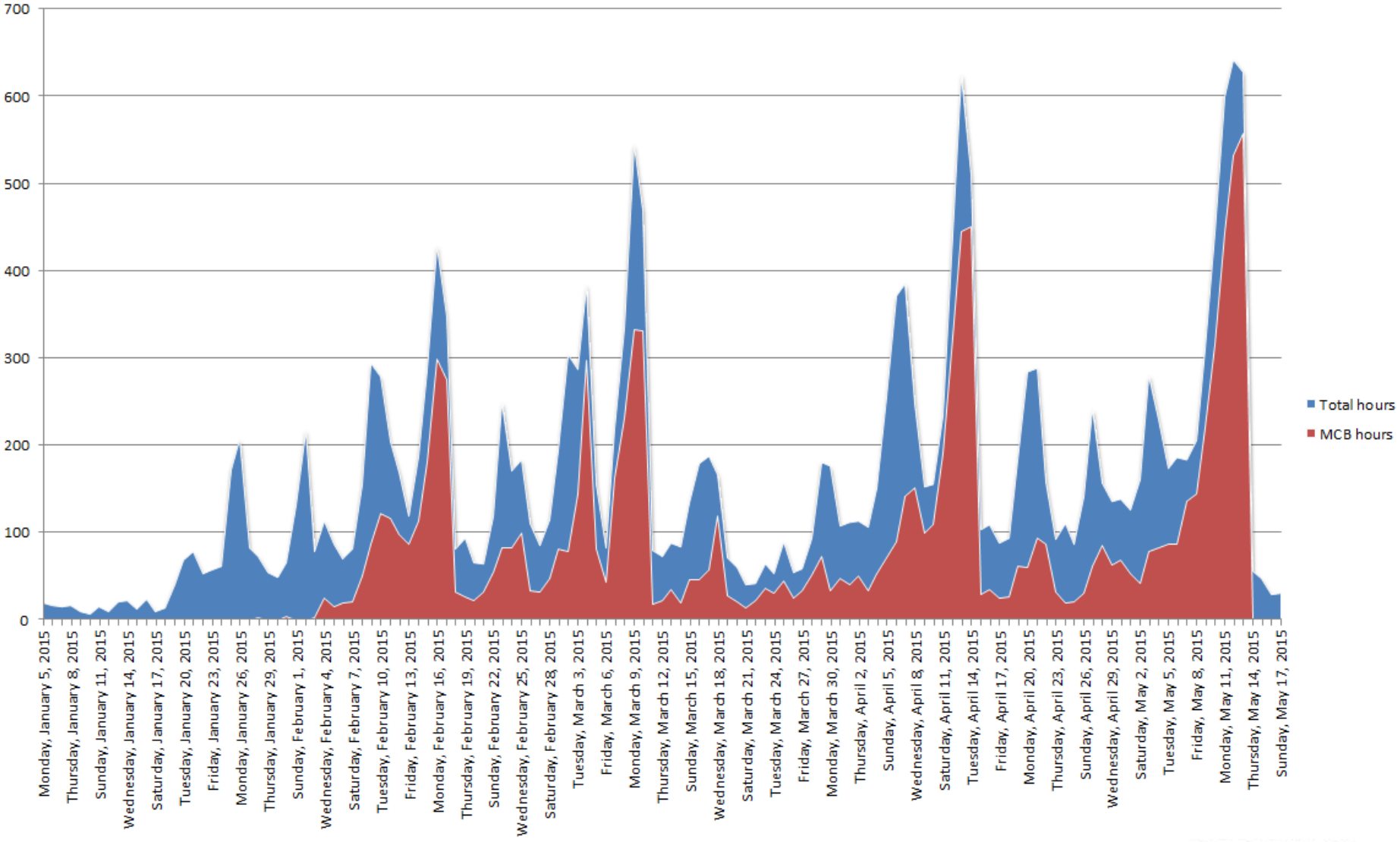
Other MCB Courses?



“Plays”



Hours



Analytics for Channel MCB 252 - Spring 2015

Custom ▾ From: 01/05/2015 To: 05/17/2015

Dashboard Media **Engagement** Contribution

Export to CSV Printable Version

User	Unique Videos	Watched	Trend	Total View Time	Avg. View Time	Average
[blurred]	20	167		59:32:33	00:21:23	44
[blurred]	22	158		73:02:56	00:27:44	57
[blurred]	21	157		58:00:43	00:22:10	44
[blurred]	23	147		52:12:19	00:21:18	44
student names	22	143		81:27:22	00:34:10	68
[blurred]	22	128		48:37:32	00:22:47	44
[blurred]	23	122		45:33:16	00:22:24	43
[blurred]	21	115		41:23:29	00:21:35	42
[blurred]	20	107		49:53:59	00:27:58	56
[blurred]	21	107		37:53:39	00:21:14	44
[blurred]	21	105		40:35:44	00:23:11	47
[blurred]	22	102		40:14:09	00:23:40	47
[blurred]	20	102		51:29:15	00:30:17	60
[blurred]	21	100		43:41:00	00:26:12	53
[blurred]	23	98		27:12:35	00:16:39	38
[blurred]	21	97		35:40:56	00:22:04	46
[blurred]	21	96		58:06:47	00:36:19	73

MCB 317

Valentine's Day Massacre



Deviation from Anecdotal Impressions of Online Student Behavior

Average length per view in MCB 252:
26 minutes



One Future Goal is to have “Heat Map Analytics”



Kaltura is Robust and Accessible

88% said Kaltura is as easy to use as Youtube

24,373 plays and 10,488 hours of viewing
with **0 complaints**

Professional, High Quality, Simple to Use



Viewing this Semester

MCB 252

35 Videos

25,017 Plays

11,245 Hours viewed

MCB 317

17 Videos (2-3 missing)

3,773 Plays

2,347 Hours viewed



Course Improvement

Identify Material Students find Most Difficult

Increase Amount and/or Depth of Material Delivered

Additional Possible Uses of Videos:

Answers to Complex Homework/Practice Problems

e-text

New Faculty- self evaluation

Grad Students and Postdocs



MCB 252 is Effectively 2 Parallel Courses: F2F
and Online but it's **NOT** and online course

Issues with online courses

MCB

CITL

Randy McCarthy and ATLAS

Lawrence Angrave and crowd sourcing



Additional Comments

Death of the classic textbook?



Thanks Goes To:



Robert Baird



Drew MacGregor



Thanks Goes To:

- Jamie Nelson, Senior eLearning Specialist, CITL
- Rich Furr, eLearning Professional, CITL
- Jeff Haas, Director of Information Technology, School of MCB
- Aaron Brown, Manager Network Operations, Design, Support, Technology Services
- Michel Bellini, Director CITL
- Additional Folks in CITL, Technology Services and MCB IT support

