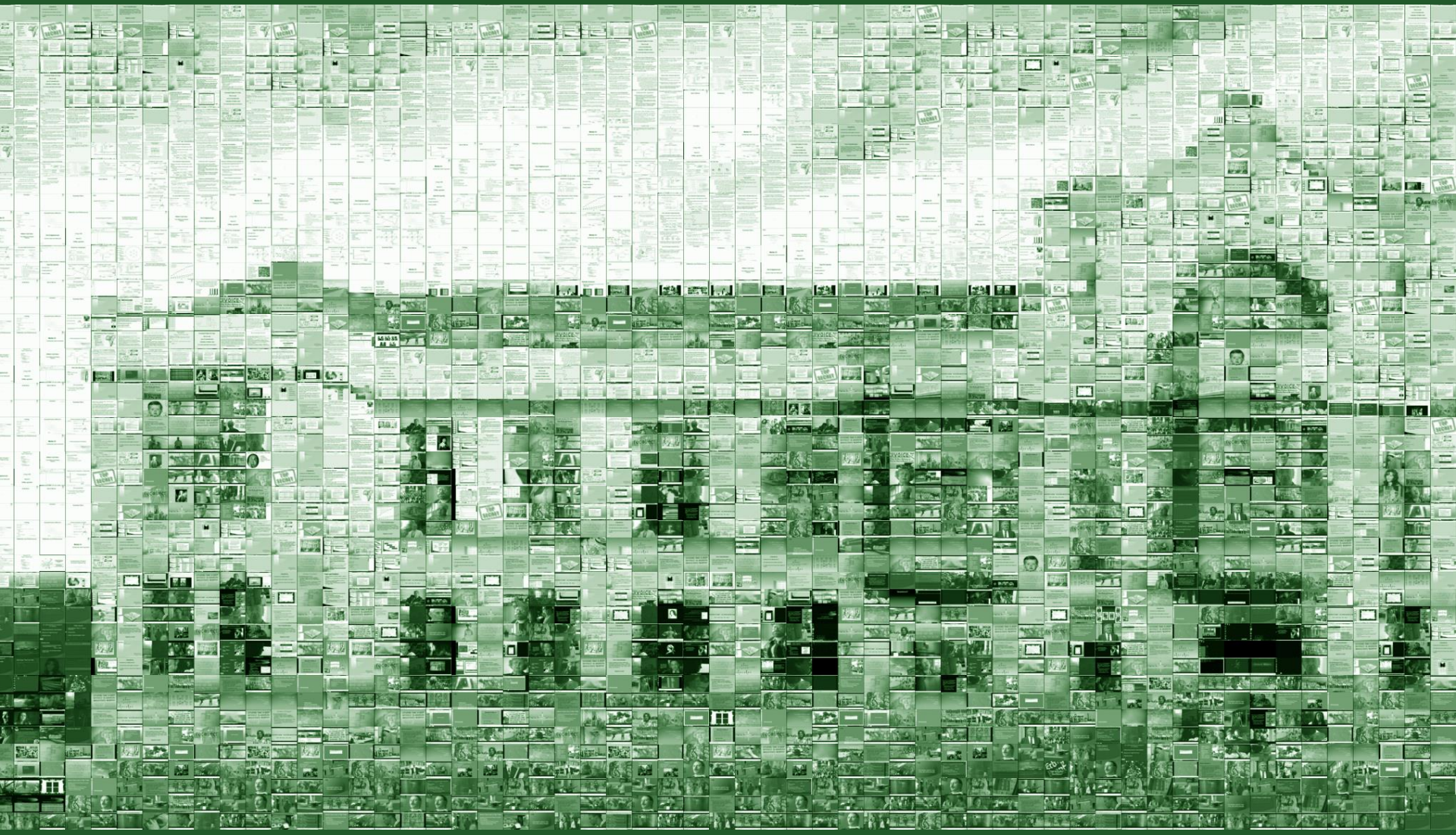
Visualizing Lecture Capture Usage: A Learning Analytics Case Study



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University of Saskatchewan, Canada

environment

recollect
lecture capture system

research disclaimer privacy policy

0 sec. 1
19:14 2
20:14 3
20:38 4
20:58 5
25:54 6
27:52 7
28:16 8
29:46 9
34:48 10
36:12 11
42:38 12
50:36 13
58:36 14
1:00:44 15
1:03:22

search go

Interesting Things

- … not required, just interesting
  Find and skim Canada criminal code sections 319 (hate crimes), 327 (telecom devices), 342 (credit cards and esp. 342.1), 372 (false messages), 402 & 403 (identity theft), [*while you're there check out 404*], and 430.1.1 [*while you're there check out 432*], on http://laws.justice.gc.ca/
  - Watch the video of Frank Abagnale speaking about his life (http://video.google.com/videoplay?docid=-6271800786378394176#)

pause 50:31 / 1:06:47 volume fit

recollect
lecture capture system
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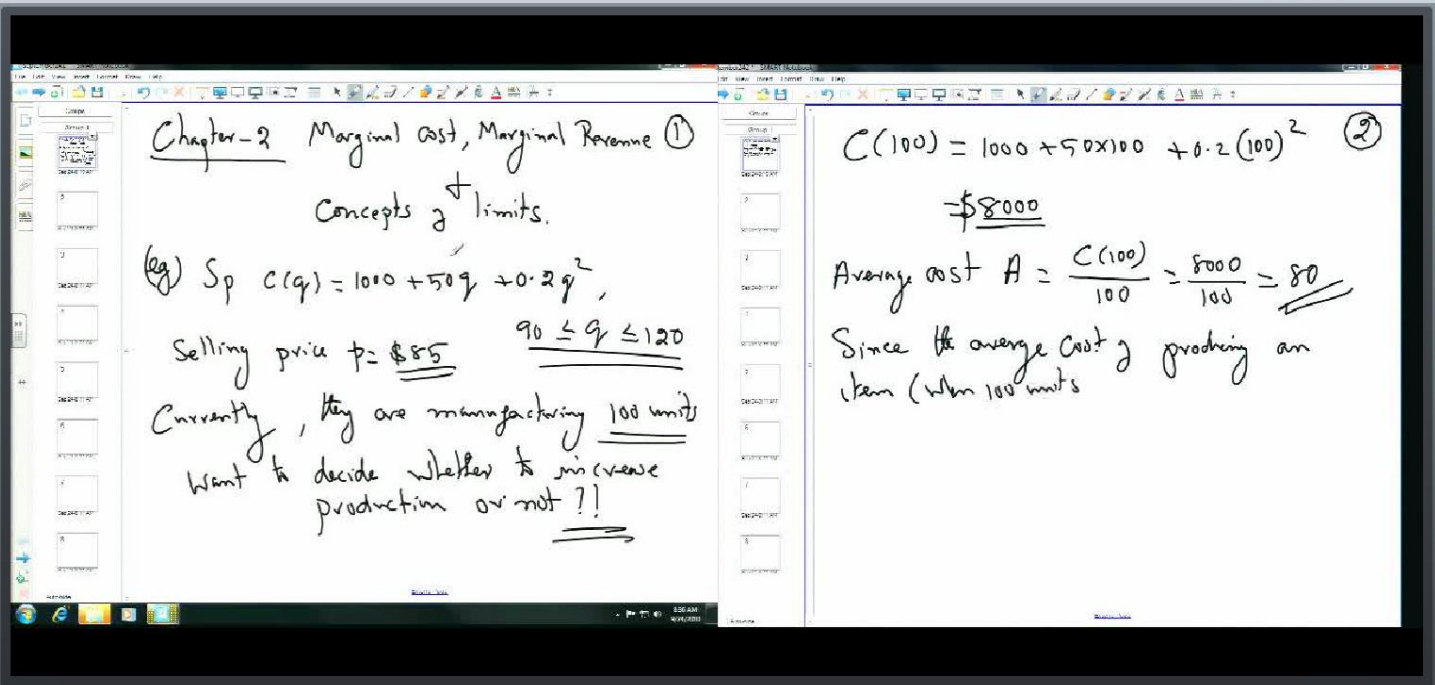


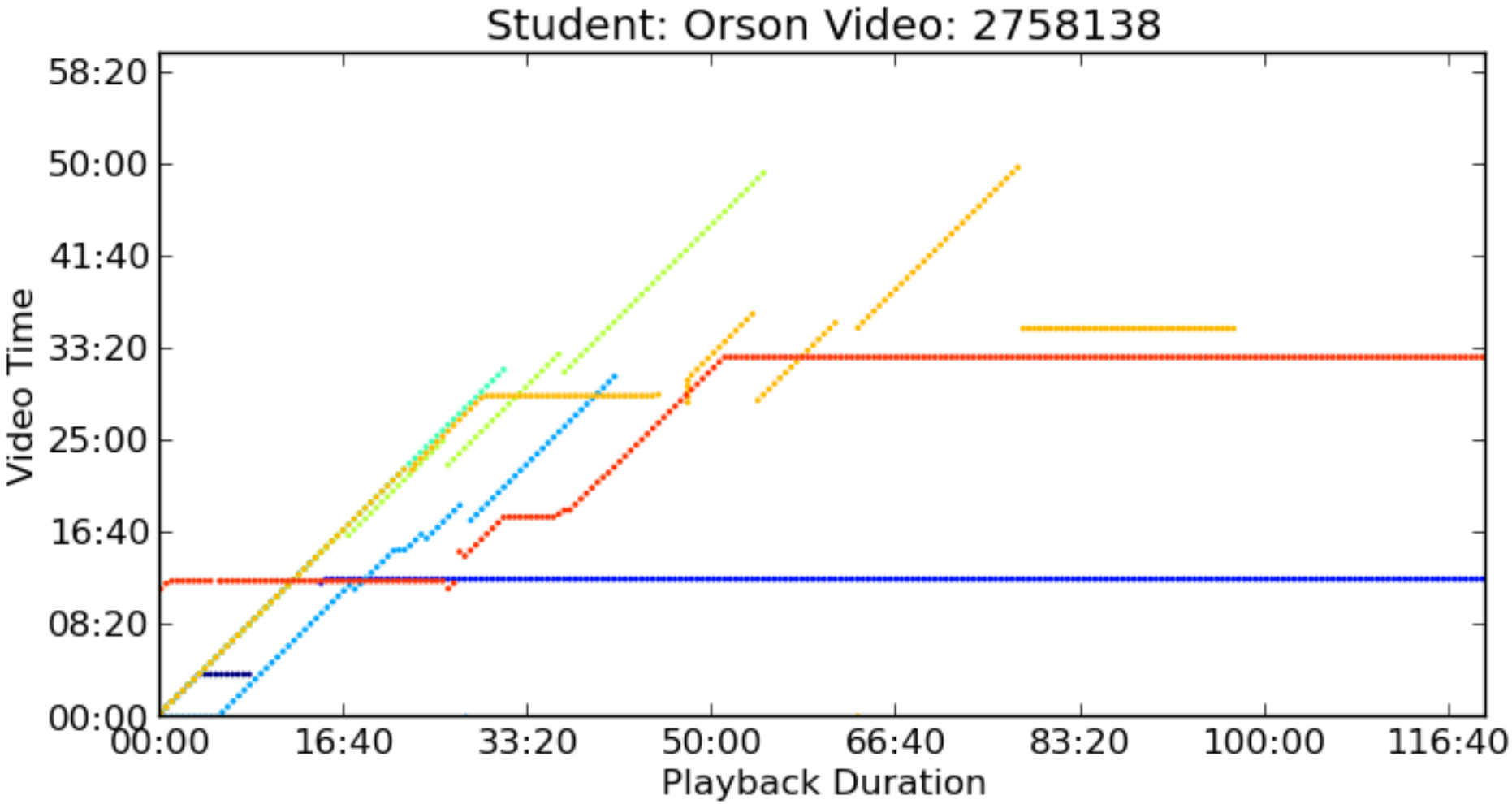
0 sec.
1
17:42
2
24:18
3
30:12
4
36:04
5
search
go
pause
6:15 / 49:54
volume
fit
my notes
print mine
auto-scroll:
[SCENE 1]
[SCENE 2]
[SCENE 3]
[SCENE 4]
[SCENE 5]
notebook
other notes
print all
auto-scroll:

opencast

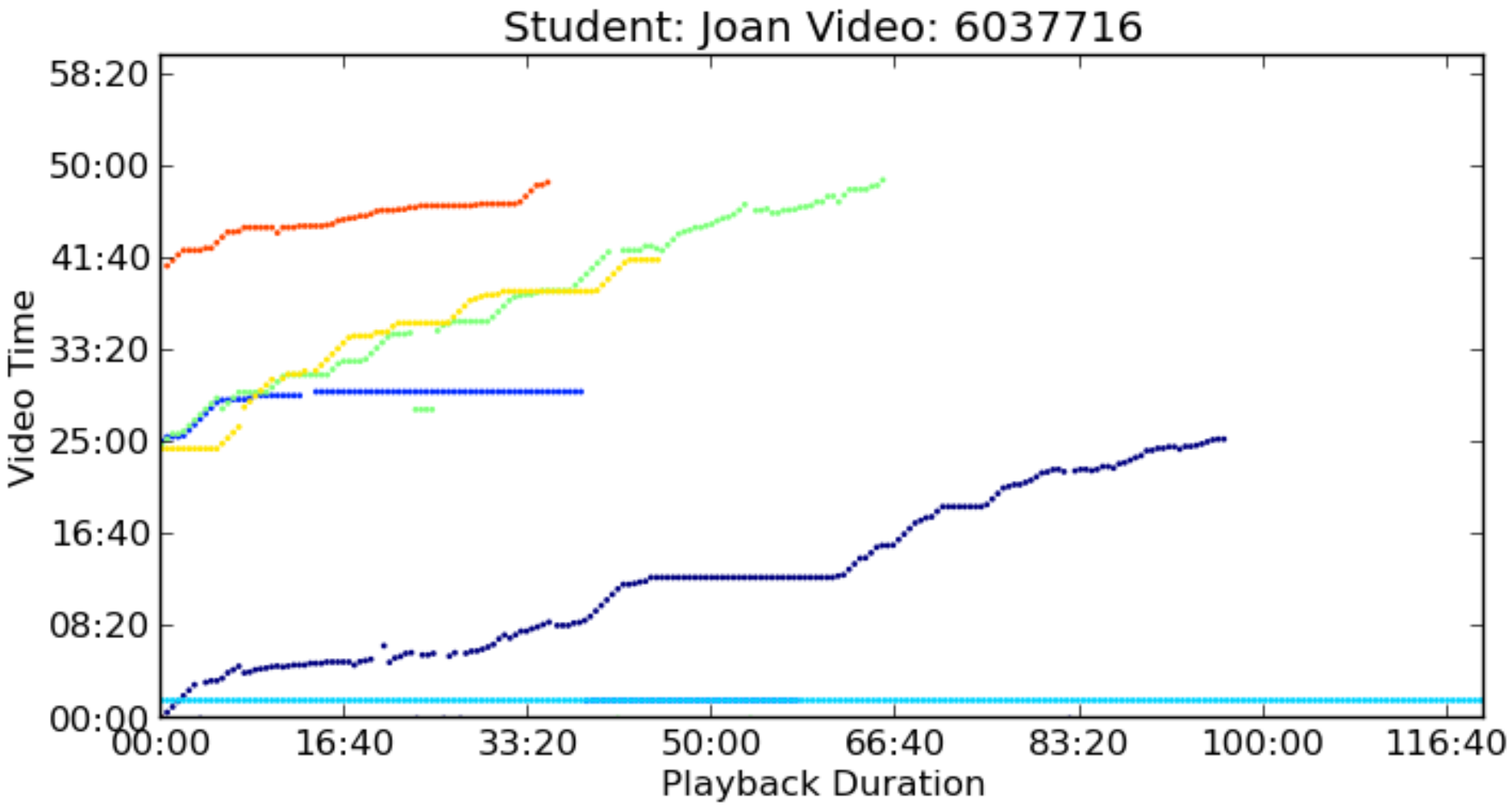
interest 1: rewatching behaviour

- motivated by a correlative link between re-reading discussion forum messages and academic performance
  - does this exist in lecture capture too?
  - how different students review content may offer benefit for identifying learning style

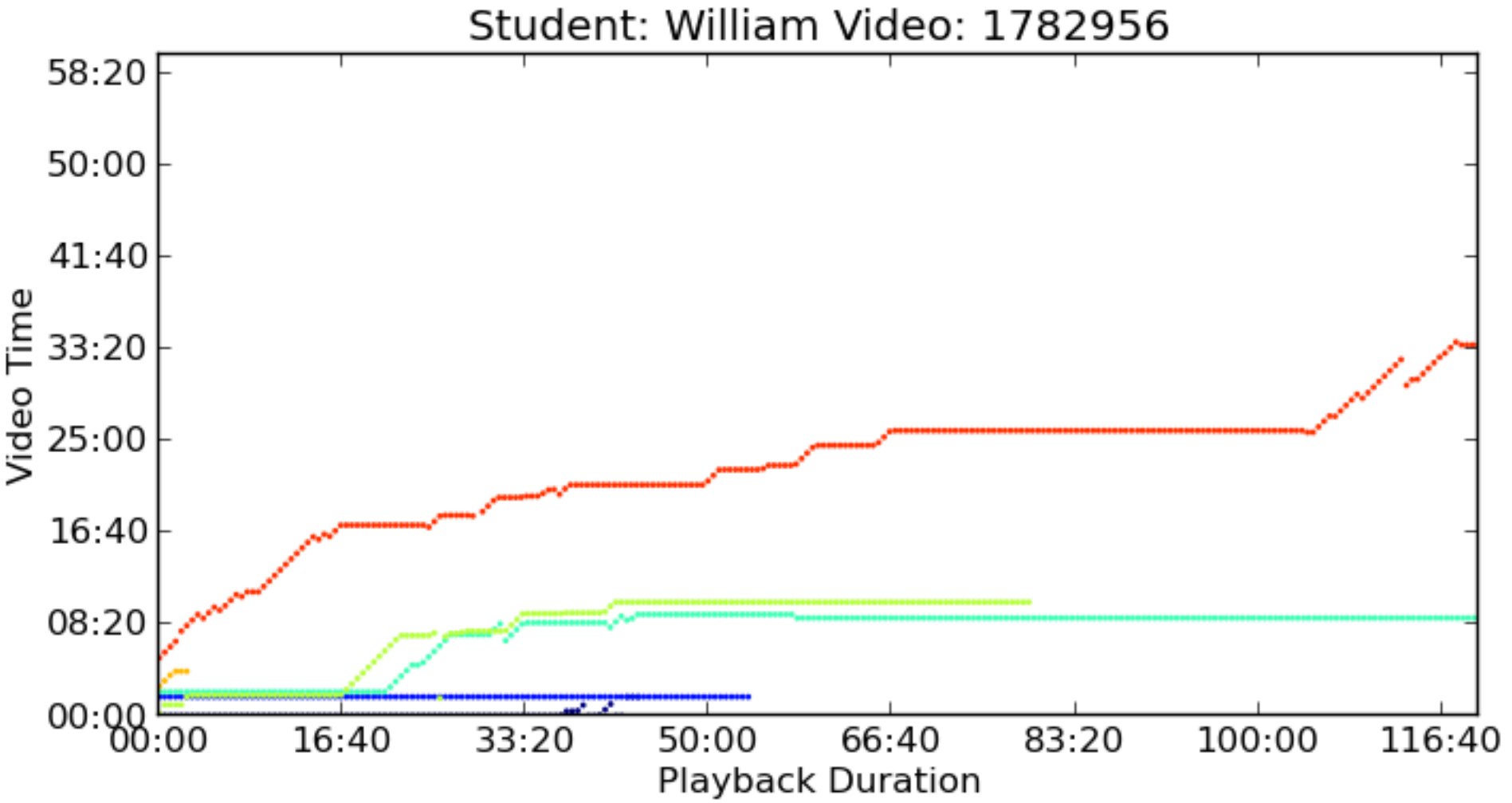
the regular rewatcher



the engaged rewatcher

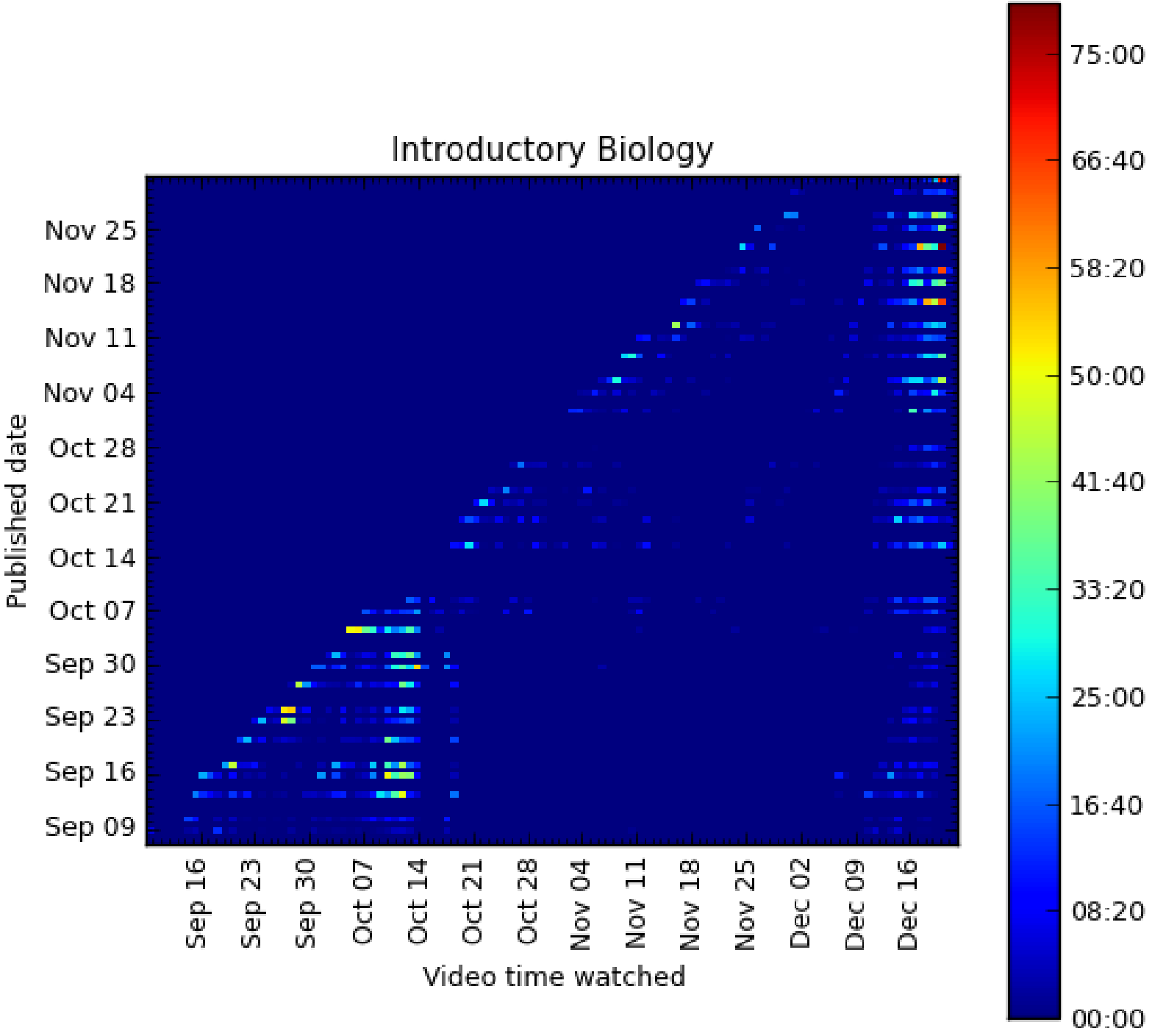


pauser rewatcher



temporal viewership

- want to see how learners use a system throughout the term
- motivated by previous investigation that showed correlation between regular viewership and high achievement
- but do students just watch the newest lecture, or are they watching older content?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Nov 18
Nov 11
Nov 04
Oct 28
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Nov 11
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Nov 25
Dec 02
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Video time watched
75:00
66:40
58:20
50:00
41:40
33:20
25:00
16:40
08:20
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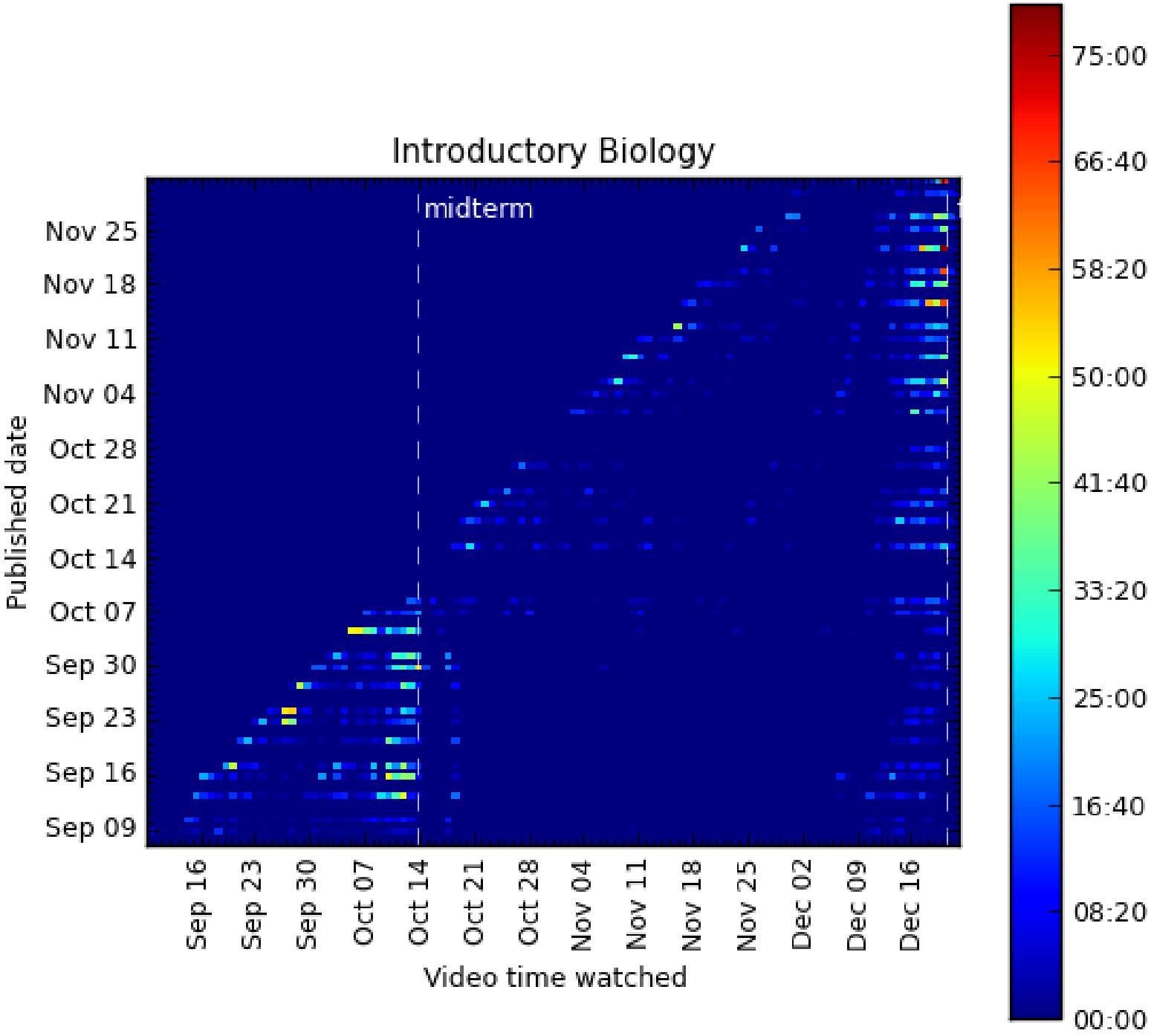
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midterm
Published date
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Dec 09
Dec 16
Video time watched
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33:20
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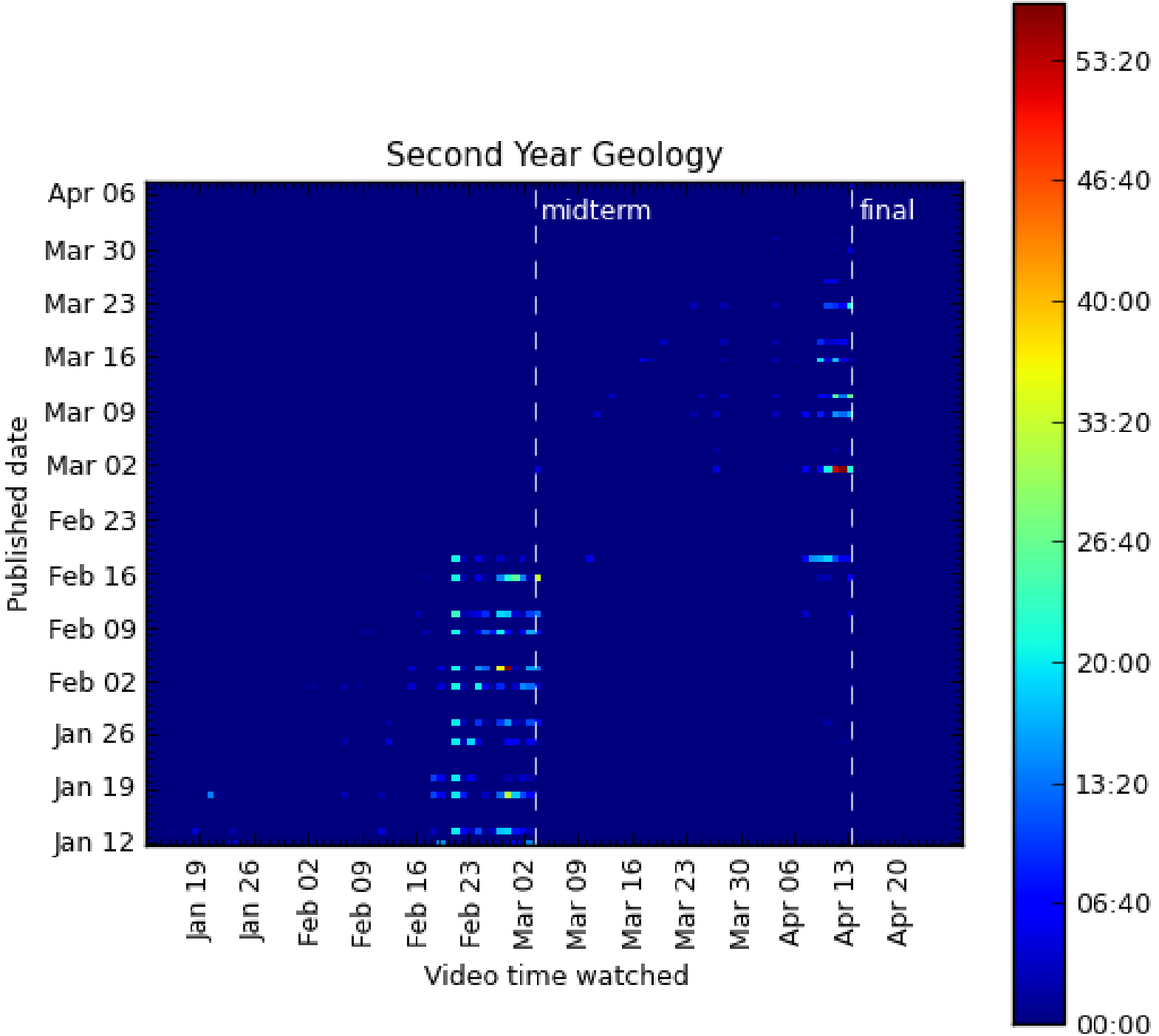
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midterm
final
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Mar 23
Mar 16
Mar 09
Mar 02
Feb 23
Feb 16
Feb 09
Feb 02
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Jan 19
Jan 12
Jan 19
Jan 26
Feb 02
Feb 09
Feb 16
Feb 23
Mar 02
Mar 09
Mar 16
Mar 23
Mar 30
Apr 06
Apr 13
Apr 20
Video time watched
53:20
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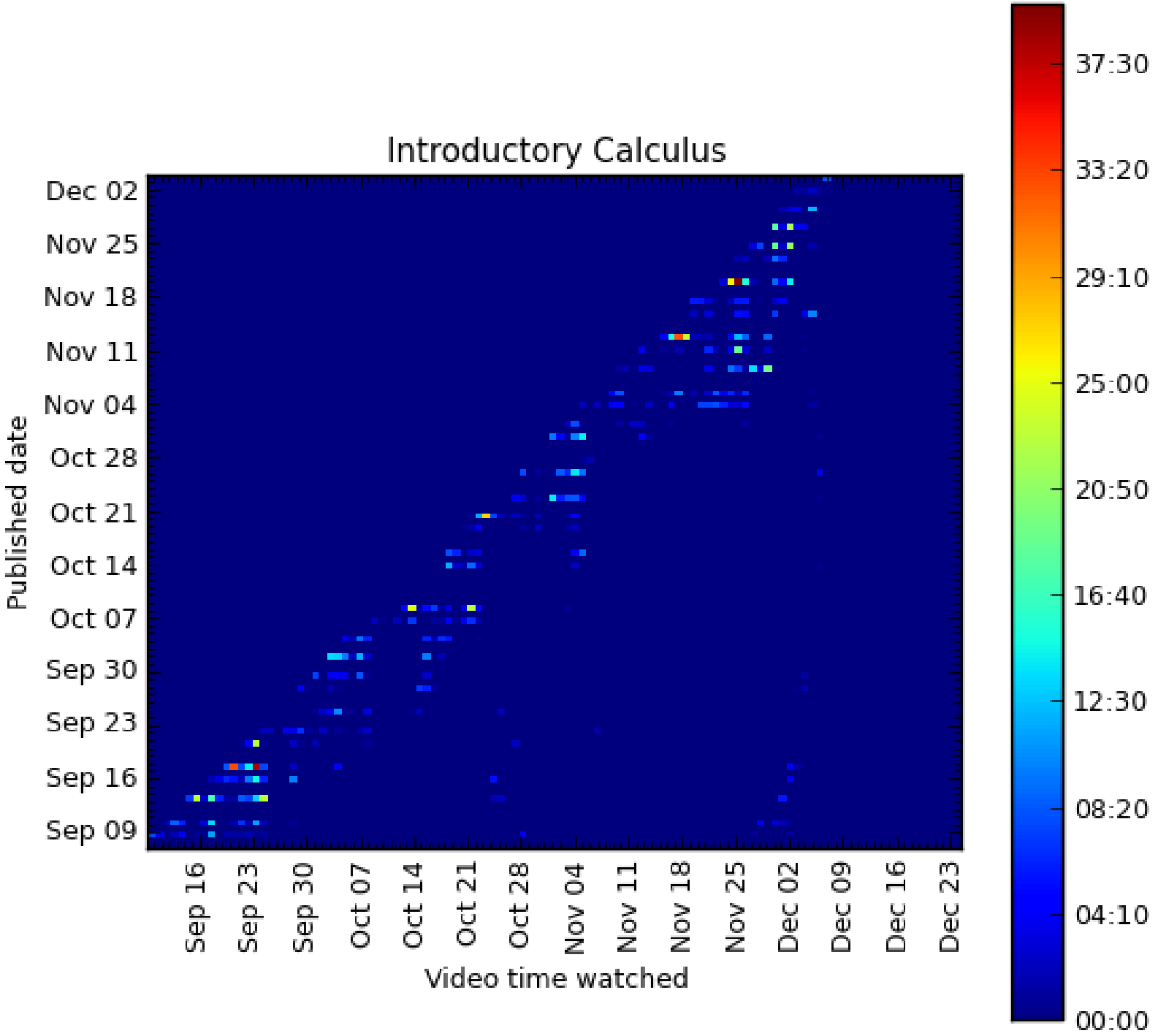
40:00
33:20
26:40
20:00
13:20
06:40
00:00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Published date
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Video time watched
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29:10
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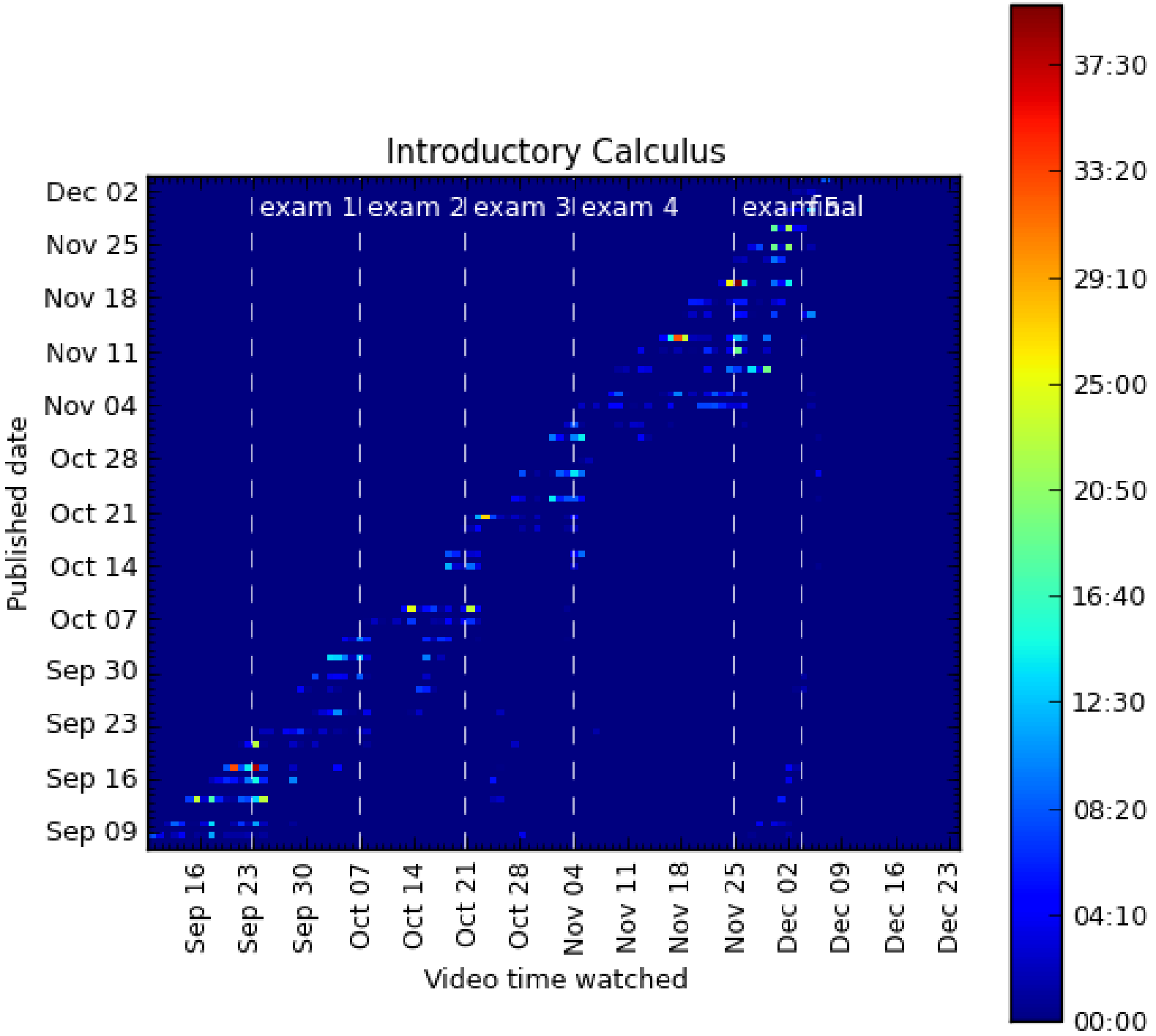
Introductory Calculus
exam 1
exam 2
exam 3
exam 4
exam 5
final
Dec 02
Nov 25
Nov 18
Nov 11
Nov 04
Oct 28
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Oct 14
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Published date
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Dec 02
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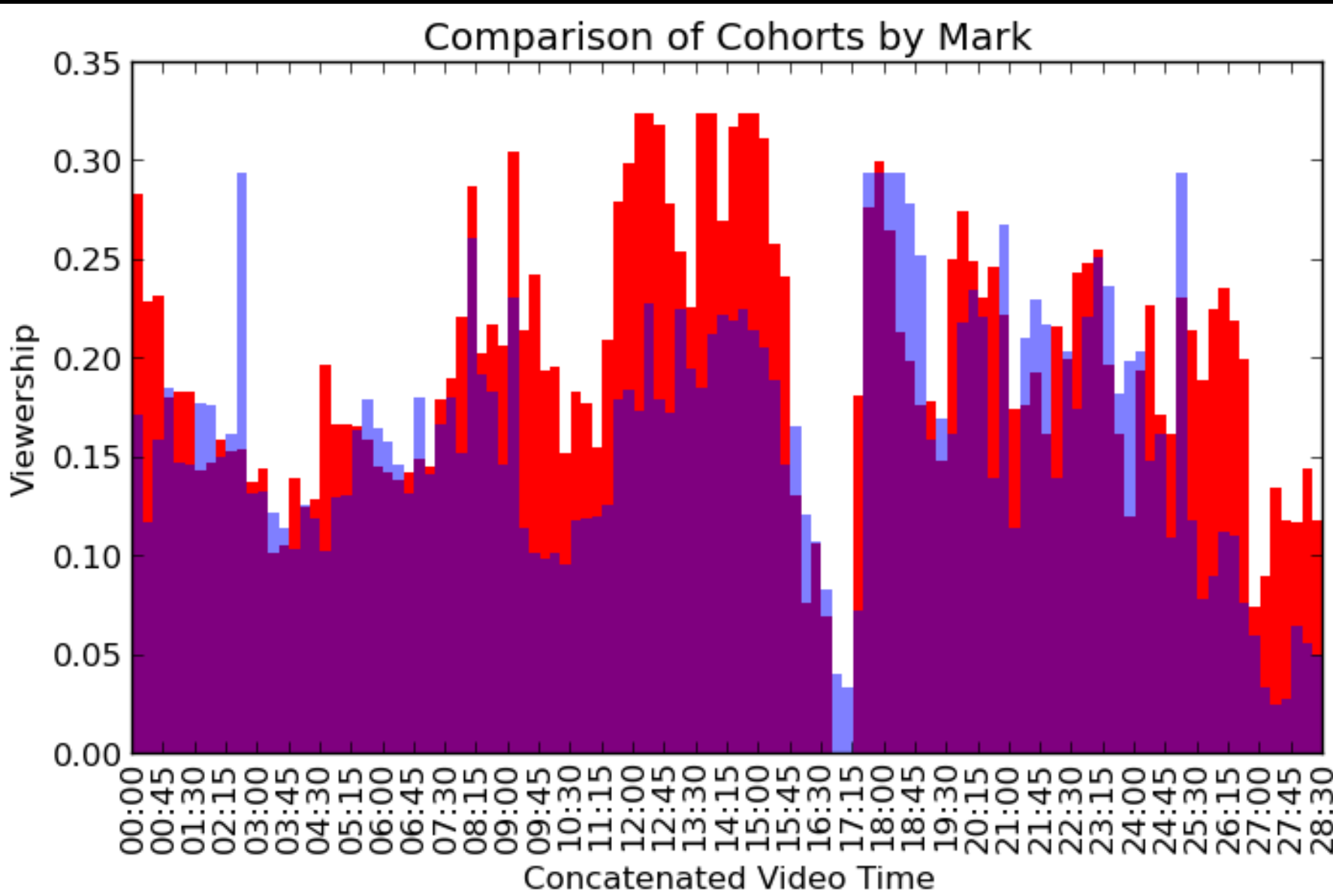
Dec 16
Dec 23
Video time watched
37:30
33:20
29:10
25:00
20:50
16:40
12:30
08:20
04:10
00:00

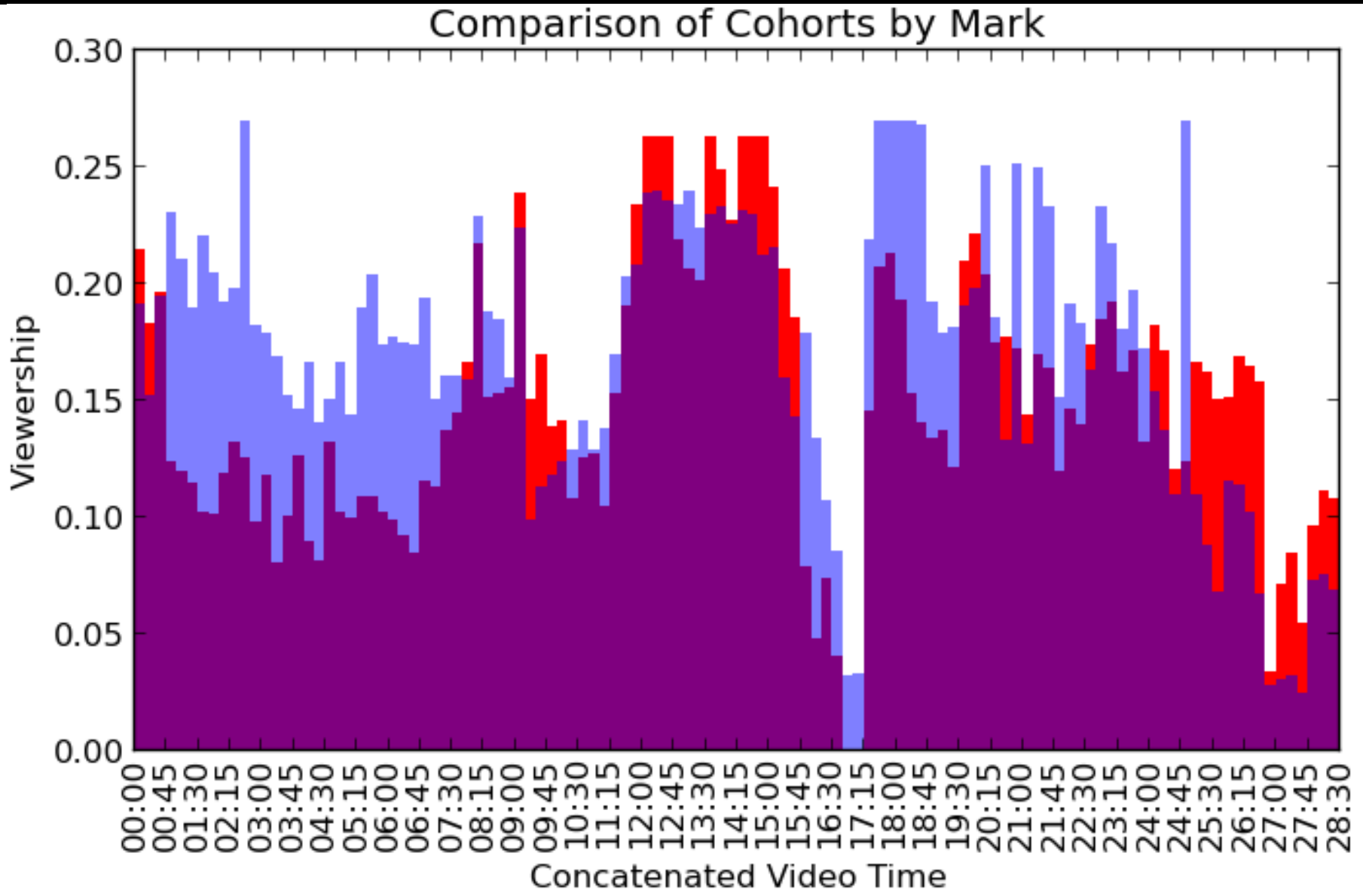
comparing groups

- interested in seeing how different identifiable groups of learners compare with their usage of the system
- do high achieving learners (87.5% or higher) use lecture capture differently than poorly achieving learners (under 62.5% but above 50%)
- the story is…complex

Red, 87.5%+ Blue, 62.5%-



Red, 85%+ Blue, 65%-



conclusions

- thus far this has been data investigation only, no interaction with instructors or instructional designers
  - rewatching is a tough metric to define, the visualizations are a start towards clarifying this
  - heatmaps tell an interesting story, and are likely of interest to instructors
  - unclear how to be convey the difference between groups
    - interested in using this visualization for ESL groups