

Find out how your instructors are *REALLY* using Canvas: We can show you how!

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Hi There!



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← That's me at Stonehenge

Hello from Virginia Tech!



(and yes, it DOES look like this every autumn...)



Virginia Tech and Canvas

Piloted Canvas in Spring 2015

Adopted for Fall 2015

 Ran Canvas and legacy LMS (Sakai) in parallel for two years

Completed migration in Fall 2017



Transition in progress...

 During transition, we collected data as instructors moved their courses to Canvas.

 We identified those departments and colleges that were slower to transition and offered them additional assistance.

 We believe this increased the pace of migration, and overall satisfaction of the faculty with the transition.

Transition in progress...

Canvas reports worked well for this

But transitions eventually end.

We needed an ongoing process for assessing adoption.

What about Canvas Analytics?

Analytics are student focused

Roll up student activity across the course.

Doesn't describe at all how the instructor is using Canvas.

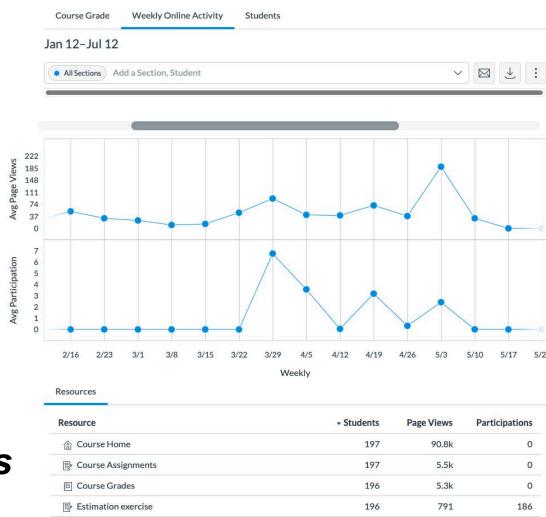


What about Canvas New Analytics?

Same issues.

- student focused
- Doesn't really describe how Canvas is being used.
- Can be inferred to some extent from the "Resources" list

Need instructor-focused metrics



Toward an Instructor-focused Metric

- Measures adoption of LMS features
 - Provides a differentiation for different levels of adaption for each feature
- Can be rolled up to a single overall metric
- Is LMS-agnostic
- Can be automated



Depth-of-Use

Looks at eight separate usages of the LMS:

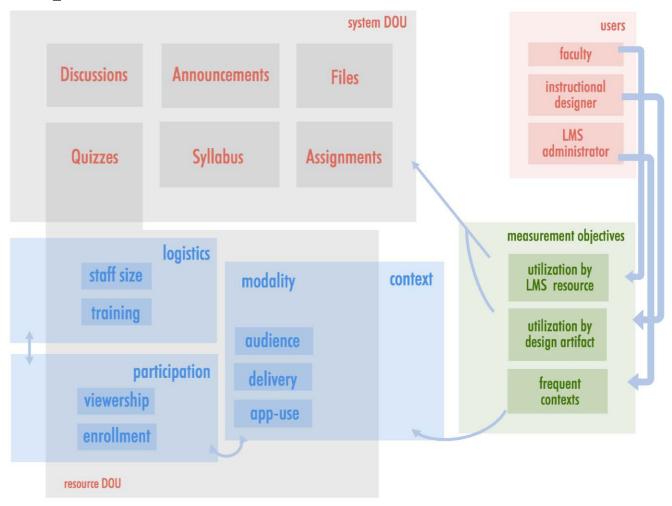
| Announcements | Syllabus | Files | Discussions |
|---------------|--------------|-------------------|-------------|
| Assignments: | Assignments: | Quizzes: Delivery | Quizzes: |
| Delivery | Submissions | | Submission |

- Based on a set of criteria, assigns a 0, 1, or 2 to each
 - For example, Syllabus:
 - No information listed in Syllabus, or hidden: 0
 - Syllabus uploaded as a file, but no content embedded in Syllabus tool: 1
 - File previewed in Syllabus tool, with links to full content: 2
- Calculations can be created based on data available via Canvas API and Canvas Data

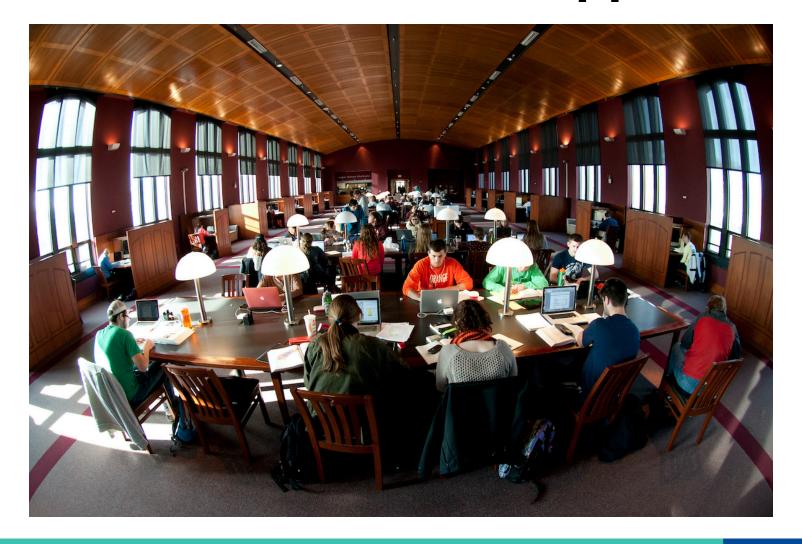


How do we use Depth-of-Use?

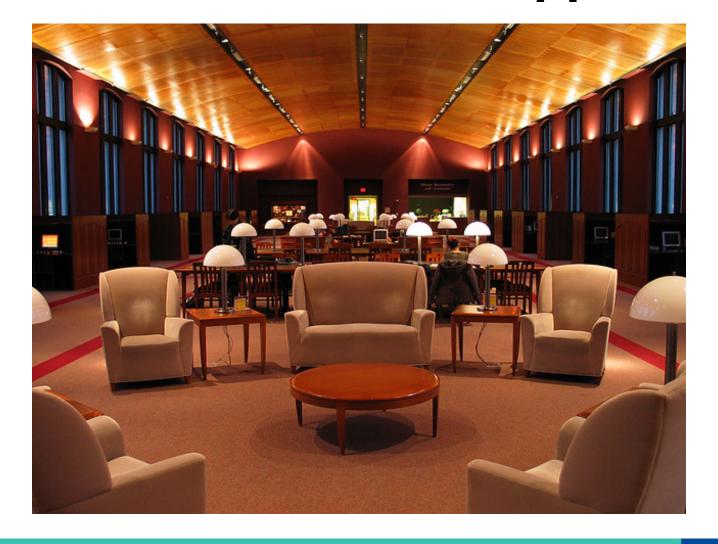
- How is Canvas being used by our instructors?
 - Filebox?
 - Assignments just to get a column in the gradebook?
- Resource allocations
 - Identify 'struggling' instructors
 - Identify Canvas 'pros'
- Impact on outcomes
 - Are some configurations better?



And then The Great Pivot happened...



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The Great Pivot

- How do you move every course online in two weeks?
- About 80% of course shells in Canvas were published
 - BUT: There is an uneven adoption of the available tools in Canvas (the "dropbox" use case).
- How do we know where to focus our efforts to support faculty in moving online?
- Depth-of-Use!



The Great Pivot

 Used the Depth-Of-Use metric to identify the set of "low" depth of use courses

 Put our efforts there, and helping instructors who typically don't use Canvas (the 20% unpublished)

We had before and after the Pivot views of Depth-of-Use.

The Great Pivot – what happened?

Increased "high" depth-of-use courses by 49%

Reduced "low" depth-of-use courses by 31%

| Overall DOU | Before | After | % Change |
|-------------|--------|-------|----------|
| Low | 3932 | 3677 | -6.49% |
| Medium | 2365 | 2288 | -3.26% |
| High | 673 | 1004 | 49.18% |

What's next?

- Working on ways to expose the Depth-of-Use measurement to instructors
- Starting our analysis of the impact of Depth-of-Use on student outcomes
- Expanding Depth-of-Use to the third-party tools we have adopted

Thanks!

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Taha Hassan, Bob Edmison, Larry Cox, Matt Louvet, Daron Williams, and D. Scott McCrickard. 2020. Depth of Use: An Empirical Framework to Help Faculty Gauge the Relative Impact of Learning Management System Tools. In Proceedings of the 2020 ACM Conference on Innovation and Technology in Computer Science Education (ITiCSE '20). Association for Computing Machinery, New York, NY, USA, 47–53. DOI:https://doi.org/10.1145/3341525.3387375



