

Bookbag: A platform for collaborative textbook writing and distribution to students

Rethinking textbooks for the modern day student and professor

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Motivation

- 1 Unsatisfied with textbook options

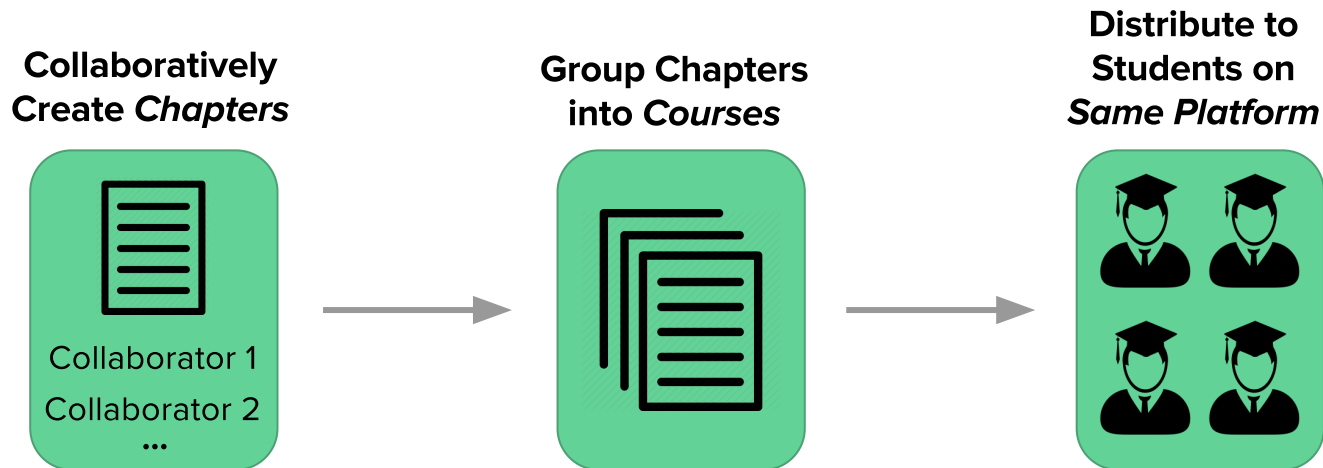
Difficult for professors to find a single textbook that suits the needs of their course
- 2 Difficult to write entire textbook

Professors rarely have the time and publishers are not fun to deal with
- 3 Collaborative authoring is separate from distribution

No simple and intuitive platform for writing and distributing text collaboratively

Goal

- Create a platform that enables professors to:



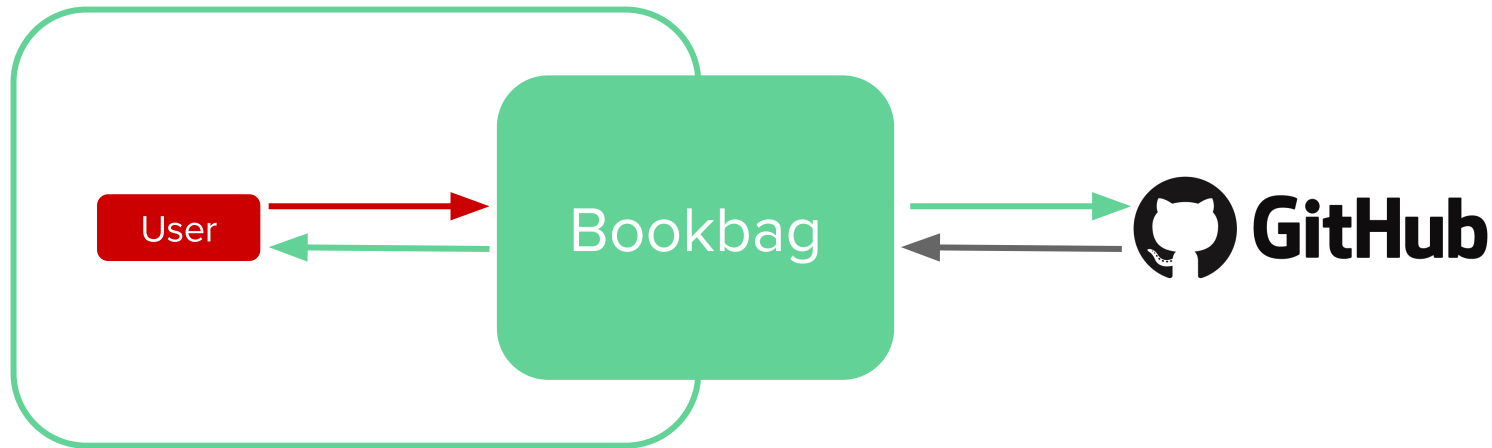
And ***profit*** from published content!

Related Works and Their Shortcomings

- Wikipedia
 - No incentive to add info
 - No verification of content editors
- Google Docs / ShareLaTeX
 - No [professor + student] platform or ability to publish content
- Coursera
 - Minimal text content
- Quilt
 - Purpose is solely collaborative writing

Approach

- Build an abstraction of version control over git/Github
 - Assumes no prior knowledge of version control
 - Allows for offline editing
 - Allows simple reversion to prior version
 - Easy to add/remove/keep track of collaborators



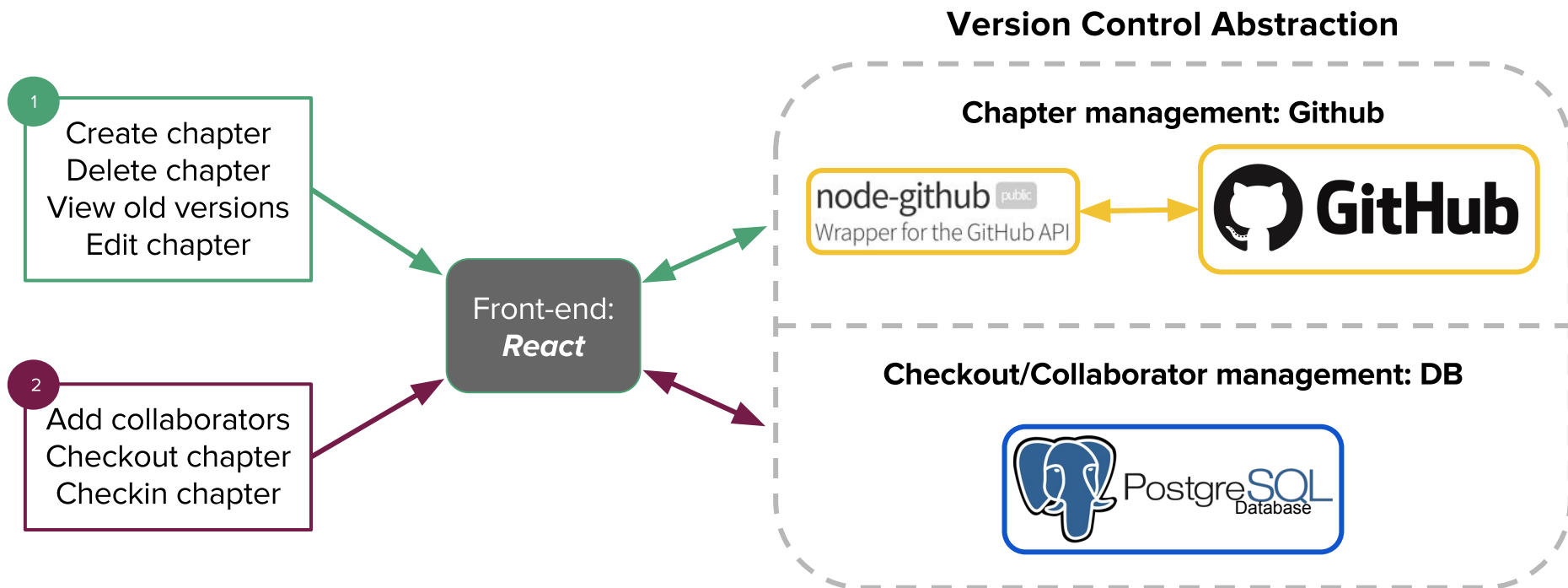
Implementation

- Bookbag actions with their equivalent Github actions:

Bookbag	Github
1. Create new chapter, upload initial work	1. Create new repository with initial commit
2. Add collaborators to chapter	2. Add contributors to repository
3. Download files from chapter	3. Open file in repository
4. Checkout* chapter, edit, upload	4. Change files, commit, push
5. Publish chapter	5. Make repo public

*Checkout feature removes the problem of multiple people trying to make edits at one time

Implementation: Technology



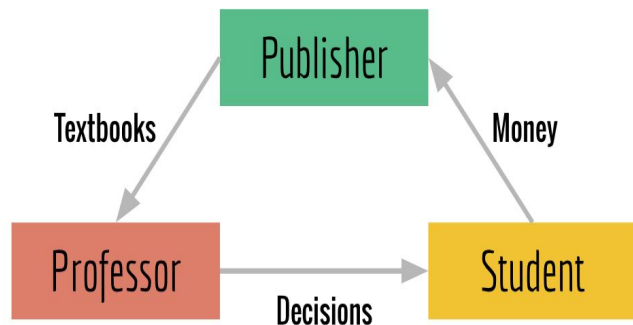
Results: Potential Profit

	Princeton	+Other Top Universities	+Entire country
# Students	2,500	50,000	1 million
Price per subscription	\$100	\$100	\$100
# Professors	100	1,000	10,000
# Chapters	200	1,000	5,000
Avg. chapters/student	20	20	50
PROFIT / YEAR / CHAPTER	\$600	\$2,250	\$9,000

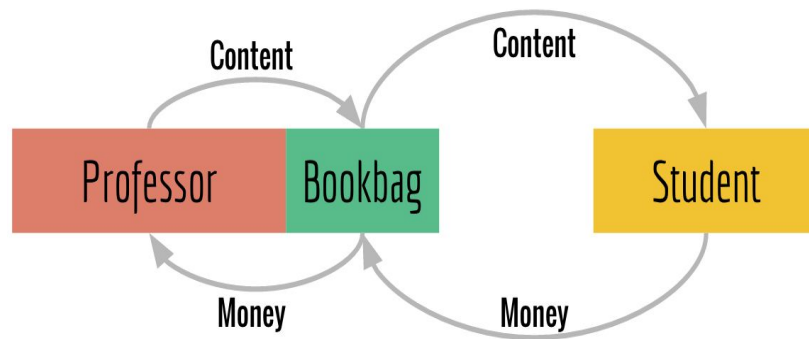
Conclusions

- Rethinking textbooks as a conglomeration of chapters from all different sources***
- Use technology to change the control mechanism for collaborative authoring***
- Restructure the market for college textbooks***

Current model:



Bookbag model:



Future Work

- This semester:
 - Collaboration side: Branch/merge functionality
 - Authentication side: Validate professors
 - Release an MVP, get professors onboard and content uploaded
 - Get feedback from professors on collaboration workflow
- Beyond:
 - Implement student payment
 - Expand to schools and professors across the country