A LOCAL BOOK SWAPPING HUB

- Textbooks are expensive!
- You probably have a lot of them that you don’t use.
- ...and so does everyone else.
- Meet and trade. Fast and free. Everyone wins.

Proposal Credits: James Stoddard, Yu-Cheng Chen, Andy Fu
Core Features

- Tracks your owned books and needed books, automatically finding trade opportunities.
- Sets up trades between people on campus when they are already there.
- Multi-party swaps make more trades possible.
- No money allowed, just books for other books.
- This combination of features is unique.

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• **Pitfalls:**
  1) Multi-party trades may be computationally expensive without careful attention to the algorithm.
  2) Need to generate a lot of live data to test major functionality. Ruby gems help here.
  3) Large group of developers. Need to devise an initial workflow to manage collaboration.

• **Data:**
  - User information (Name, location, schedules).
  - Book inventories (Want, need, conditions, value).
  - Hub data (Name, locations, maintainer).
  - Proposed and completed trades (Who, what, when, where).

• **Proposed stack:**
  - Back end: Ruby on Rails
  - DBMS: PostgreSQL
  - Front end: Traditional web (HTML, CSS, JavaScript, JQuery)
  - Mobile: Potential mobile app port to Android via PhoneGap, which makes such a thing much easier.

• **Experience:**
  - Andy Fu (HTML, CSS, JQuery, SQL)
  - Alex (Ruby on Rails, Database design, SQL)
  - Yu-Cheng Chen (HTML, CSS, JavaScript)
  - Possible needs: More Rails experience, JSON APIs, automated web application testing, graphic design.