Senior Thesis Proposal

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To satisfy the thesis requirement of a joint concentration, I am planning on performing a data analysis of competitive figure skating scores advised by Jim Waldo (Computer Science) and Joe Blitzstein (Statistics). Potential questions I'm interested in exploring include:

- judging bias based on country, skate order, and anonymization

- the impacts of changes in scoring system

- evaluating trends for individual score components across judges, to consider the "correctness" or "fairness" of a scoring system

- the validity of the ranking system

Data from all major international competitions (of which there are approximately 7 per year, excluding the Olympics) dating back to 2004 is available online in PDF format. I have already tried to contact the governing body of figure skating for data in a better format, but was unsuccessful. I plan to scrape these PDFs for my data.

My immediate next steps are to scrape and collect data to evaluate the feasability of analysis by the end of October. I've been less communicative with my thesis advisors due to the insanity of the recruiting season, but will set up a biweekly time to meet with them in October.

I plan to do most of my background research and exploratory data analysis by the end of the calendar year. I will devote a few weeks in January to performing my analysis, and hopefully start writing in February.