

Building Big Data Initiatives Across the University: Challenges and Opportunities

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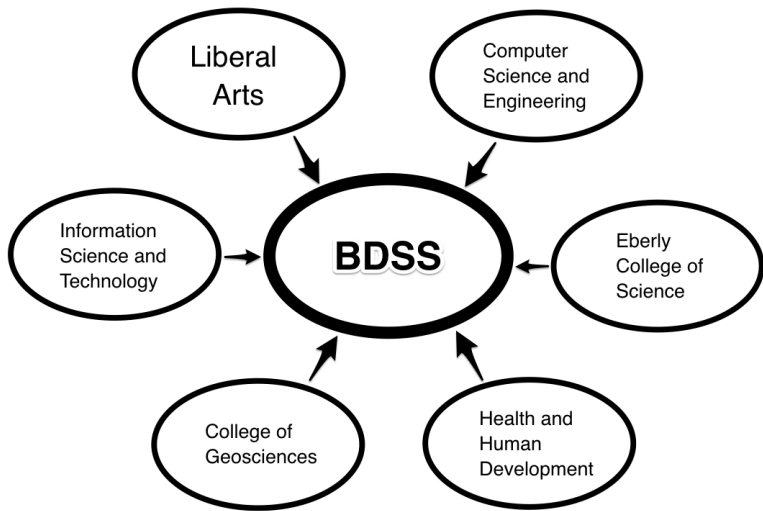
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BaDaSS



BDSS support:

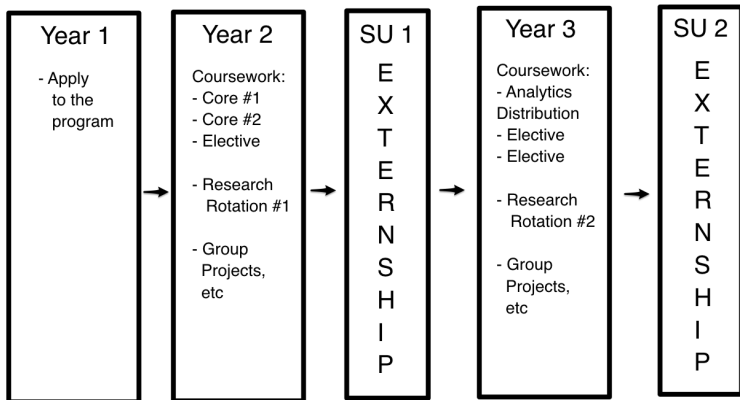
- NSF IGERT (\$3m)
- Penn State administration (\$3m) (including the “Databasement”)
- PSU Colleges (various)
- Social Science Research Institute, Institute for Cyberscience, etc.



BDSS Structure

- “Dual-Title” Ph.D. in *Social Data Analytics* (“SoDA”)
- 7-8 students per year for five years (+ “associates” and “affiliates”)
- 2nd - 3rd year of Ph.D.
- General requirements: Coursework + research rotations + externships

BDSS Process



- 21 trainees + 4 associates + 8 affiliates
- Fields: Geography, Political Science, Statistics, Sociology, Information Science, Human Development, Health Policy, Computer Science
- 40% female, 20% from historically underrepresented groups
- > 100 student-authored publications (300+ Google Scholar citations)

- Selected Externships:

- Academic: ETH Zurich, NYU, Harvard, UCLA, German Economic Institute, UMass
- Industry: IBM Research, Parus Analytics, Google, Strava, Scitor
- Other: Census Bureau, Data Science for Social Good, Oak Ridge, Pew Research Labs

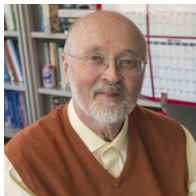
- Placements:

- Tenure-track: Minnesota, Delaware
- Post-docs: CMU, Concordia, Harvard
- Industry: Google ($\times 2$), NASA, Verisk Maplecroft, IBM Research, Caerus Analytics, LinkedIn

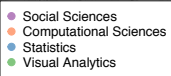
BDSS → SoDA

- SoDA Dual-Title Ph.D.
- SoDA Graduate Minor
- September 2015: SoDA B.S. degree (Political Science)
- Planned: SoDA M.S. (100% on-line)
- SoDA “Program” (→ Department)

Lesson #1: Champions



Penn State BDSS-IGERT



**Institutionalize
flexibility.**

More information...

BDSS: <http://bdss.psu.edu/>

SoDA (Ph.D. + graduate minor):
<http://bdss.psu.edu/soda/>

SoDA (B.S.): <http://soda.la.psu.edu/>

These slides: <http://bit.ly/ISU-SODA>