Research Question and Literature Review

January 26 & 27, 2015
Interested in Mentoring?

Experts in Residence Need Visitors

• Half-hour slots via TS Career Central with
• Zeita Merchant, Commander, U.S. Coast Guard, Special Assistant to the Vice Commandant., Jan. 29
• Triana Mc Neil, Assistant Director, Financial Markets and Community Investment Team, GAO, Feb. 23
Goal: Analyze, don’t describe
Research Questions

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- Description: How many feral cats are there in DC?
Research Questions

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- Description: How many feral cats are there in DC?
- Analysis: Why do feral cats persist?
  - We will use DC as an example to study this question.
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- Description: How many feral cats are there in DC?
- Analysis: Why do feral cats persist?
  - We will use DC as an example to study this question
  - Beware of implicit assumptions: are there feral cats in DC?
  - Consider relationship between two or more variables
Posing Hypotheses for Research Question

• Are there feral cats in DC?
• Hypotheses: 5 explanations for feral cats
  1. Rats
  2. Bats
  3. Trash
  4. Feeding
  5. Lack of neutering
• What causes what? Notice that 1 may be a function of 3
• We consider 5 explanations – be cognizant that there are others
Question vs Recommendations

• RQ answer is not a policy recommendation
  • For example: cities with more “creative people” grow faster
  • Does this imply that adding more artists will increase growth?
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  • For example: cities with more “creative people” grow faster
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• Be thoughtful in translating research answer to practical recommendations
Goals of the Literature Review

• Survey the literature (Thanks to N. Shunda)
  • Organize
  • Evaluate
  • Identify patterns
  • Synthesize

• Motivate your work
  • Relate to your research question
Bad Literature Review

RQ: Why are there feral cats in DC?

- Adams and Baker (2003) say that feral cats are due to relatively warm weather
- Palmer and Brooks (1995) say that feral cats are due to rats
RQ: Why are there feral cats in DC?

• The literature identifies three key features that motivate more feral cats: warm weather (Adams and Baker, 2003), rats (Palmer and Brooks, 1995), and failure to neuter.

• However, no papers have considered cats in the winter, when they are more likely to lay eggs. Smith and Smith (2005), Jobs and Jobs (2002) and Gates and Gates (2007) all find that cats eat rats in the summer.
Finding the Literature to Review

- Talk to librarians
- If the first one is not helpful, find another one
- Do not rely entirely on google: you will miss critical literature, especially older work
- Work backwards and forwards from citations to – and to citations of – most useful work
Literature Review Final Thoughts

- Always organize by ideas
- Guided by your research question