CBS Grad Chats
Series & CEPS
Brown Bag Series

Scholarship applications
September 13, 2022

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Welcome!

- Dr. Virginia Capmourteres, Research and Graduate Officer, CBS
- Dr. Bethany Davidson-Eng, Research Comms Officer, CEPS
- Ariah Easley and Sarah Erbarescu, Grad Awards Officers
- Dr. Graham Holloway, ADR, CBS

Background

- Who funds major scholarships?
  Who will read my scholarship proposal?
Background

• Major government scholarships
  • Federal: CGS-M, CGS-D, and PGS-D; Vanier CGS (from NSERC, CIHR, and SSHRC)
  • Provincial: OGS/QEII

• All require a research proposal as part of the application

Background

• Start writing as early as possible
• Research your topic and discuss objectives with your advisor
• Seek out feedback (advisor, lab mate, postdocs, friend)
• Access writing resources if needed (check out the Library)
• Be ready to draft, revise, and rewrite
Background

- Think of your audience:
  - Awards committee at the department levels
  - OGPS multidisciplinary committee
  - External committee for doctoral scholarships

Scholarship proposal writing

- How can I strategically structure and select content for my proposal?
Scholarship proposal writing

• CARS (Create a Research Space model) to structure the proposal
• Method developed by John Swales,
  • Analyzed hundreds of introductions from scientific articles
  • Identified 3 rhetorical “moves”
• Scholarship proposal similar to introduction of a paper

Move 1: Establishing a territory
• What’s already known about this topic?
• What have others done already?
• What’s the context?

Move 2: Establishing a niche
• What’s the knowledge gap?
• What hasn’t been explored yet?
• What’s still not clear?

Move 3: Occupying the niche
• How do you fit into the conversation?
• What will you do?
• What solutions will you bring?
Move 1: Establishing a territory

• Three strategies for establishing a territory (not mutually exclusive):

- **CLAIMING CENTRALITY**
  Demonstrate importance; show how lively or well-established the topic is; show how it affects people

- **MAKING TOPIC GENERALIZATIONS**
  Explain phenomenon; assert facts; provide context; describe current state of knowledge

- **REVIEWING PREVIOUS RESEARCH**
  State what others have found/said; offer key theories/paradigms/frameworks/authors

“The Canadian agriculture and agri-food industries face a **chronic labour shortage**, which results in **delayed and reduced production**, and **lost sales**. Exports from the agricultural and agri-food industries comprise a large portion of the Canadian GDP contributing as a major producer of goods to feed citizens worldwide. If left unaddressed, this labour shortage has **potential for widereaching impacts**, influencing the prices and availability of Canadian-grown food both locally and worldwide. Autonomous machines have been proposed as a solution because they are an **effective way to improve agricultural productivity**.”
Move 1: Establishing a territory

“The pelvic floor is a multi-functional system and its roles include assisting in urine and fecal continence and maintaining the position of pelvic organs. Therefore, disorders affecting the pelvic floor may result in urine and fecal incontinence and pelvic organ prolapse (POP), which can result in a significant decrease in the quality of life of those affected. These structural abnormalities can be categorized as pelvic floor disorders (PFD) and affect between 30-50% of the female population at some point in their life.”

Move 1: Establishing a territory

“… only one study (on deer mice) has shown that such differences are caused by barren housing [38], leaving the picture unclear for other species and other stereotypic behaviours. One study also found that pacing stereotypic behaviours in barren-housed male mink predict poor mating success: very consistent with impairment [9].” (L. Kitchenham)
Move 2: Establishing a niche

Three strategies for establishing a niche (not mutually exclusive):

- **COUNTER-CLAIMING**: State what others have said/done and explain why that is not true/accurate/reliable
- **INDICATING A GAP**: Acknowledge what has been said/done and what’s missing
- **QUESTION RAISING**: State question that hasn’t been asked or that emerges from a logical argument
- **CONTINUING A TRADITION**: State what has been said/done and why/how it needs to be expanded upon/studied in more detail

"One of the first indices of integrity introduced in ecology was the Index of Biotic Integrity (IBI) developed by Karr (1981) .... Despite the popularity of the IBIs, several criticisms have emerged... IBIs can be subjective... use arbitrary units,... rely solely on biotic variables...Given that CCA and SEM are good contenders for application in the assessment of ecological integrity... the goal of this paper was to analyze Karr's iconic IBI dataset (Karr 1981) with both CCA and SEM in order to explore the contributions that these approaches can bring to IBI assessments."
Move 2: Establishing a niche

“Retrofit autonomous tractor solutions have been implemented by two companies. However, these retrofit autonomous navigation systems are made for use in uniform environments with large vegetation such as orchards and row crop agriculture and do not consider terrain conditions which may lead to soil compaction or increased shock. The objective of this work is to create a retrofit implementation of an autonomous navigation framework, which considers approaching terrain conditions onto an agricultural tractor…”

Move 2: Establishing a niche

“If these strong claims are correct, stereotypic animals not only have poor welfare but are permanently impaired by captivity: something with important ethical and practical implications. But are such claims justified? After all, stereotypical behaviours are also common in humans during mild stress or boredom (e.g. [35, 45]), where they are clearly not pathological.” (L. Kitchenham)
Move 2: Establishing a niche

“Specific to lung cancer screening, algorithms have been trained to automatically detect and diagnose lesions in the lungs in low dose computed tomography (LDCT) by leveraging longitudinal imaging in combination with biopsy results. But an end-to-end analysis of LDCT images will be explored in this research work.”

Move 3: Occupying a niche

• Three strategies for occupying a niche (not mutually exclusive):

  OUTLINING PURPOSE
  State what you will do; goal and objectives; explain your role in the conversation; propose a solution

  DESCRIBING METHODOLOGY/STRUCTURE OF THE RESEARCH
  Explain how you will do what you said you will do; list methods or stages of the research

  SIGNIFICANCE AND CONTRIBUTIONS
  Justify why your work is important; who will benefit; expected impact; how you advance the field
Move 3: Occupying a niche

“The goal of my project is to develop novel artificial intelligent (AI) deep learning methods for detecting, segmenting, and measuring the pelvic floor of females suffering from POP using 3D US images… The objectives of the project are as follows:

1. Build and evaluate AI models to…
2. Develop a method to…
3. Develop an AI model to…”

Move 3: Occupying a niche

“Phase 1 - Lung Segmentation: … V-Net based lung segmentation model will be used as a preprocessing step to separate voxels associated with lung tissue from neighboring anatomy.”

“I will infect host cells with Fn in the presence of metabolites derived from representative normal gut microbiomes and analyze the effect on host and bacterial gene modulation as in Objectives 2 and 3.” (A. Robinson)
Move 3: Occupying a niche

“The successful completion of this project will result in the fabrication of highly efficient photocatalysts, which would be of great value for a myriad of catalysis, energy, and environmental applications.”

“I hypothesize that there are further instances of interplay amongst other efflux pumps, which enhances the transporting capabilities of tripartite assemblies. This fundamental study is of value for understanding how E. coli responds to adverse growth conditions.”

Going back to the beginning

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Move 2: Establishing a niche
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Move 3: Occupying the niche
- How do you fit into the conversation?
- How will you do what you say you will do?
- What solutions will you bring?
Q&A

Do you have questions for us?

Thank you!

Contact us:

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Move 1: Establishing territory

Claiming centrality
- The effect of ... has been studied extensively in recent years.
- X and Y have received considerable attention from...
- A large body of data concerning ... has been reported
- The possibility of ... has generated interest in...
- In recent year, there have been many papers describing...
- Researchers have become increasingly interested in...
- Knowledge of ... has great importance for understanding ...
- The study of... has become an important aspect of...
- The well-known issue X has been a favourite topic of analysis for/in...
- This has impacts on ........ and ....
- X number of people are affected by...

Making topic generalizations
- It is well known that...
- X is known to influence Y
- X is believed to be relatively...
- It is generally accepted that...
- A standard procedure for assessing... has been...
- X tends to consist of...
- Scholars commonly suggest that . . .
- These... are often found
- There are many situations where . . .
- There is now much evidence to support the hypothesis that...
- X is... and its effects on Y are...

Reviewing previous research
- Author (yr) concluded that...
- Author (yr) found a clear relationship between X and Y
- It has been suggested that... (author, yr)
- Observations by author (yr) suggest that...
- Author has pointed out that . . .
- Author’s theory of .... (yr) claims that . . .
- Scholars in the field of ... have argued that...
- It has been recently found that.... (author, yr)
- Two main frameworks exist for the interpretation of X: ... and ...
Move 2: Establishing a niche

Counter-claiming
- The study of... has been exhaustive, but changing circumstances related to... support the need for examining (or revising) ...
- This existing research, however, has assumed that...
- However, these studies have failed to recognize that...
- But recent work in ... points to another interpretation.
- This view, however, is challenged by recent data showing ... .
- A closer examination, however, reveals a flaw in the assertion that ...
- However, the previously mentioned methods suffer from some limitations ...
- ... is time consuming and therefore expensive, and its... is not accurate

Indicating a gap
- Prior research has focused on..., rather than on...
- These studies have emphasized..., as opposed to...
- Although considerable research has been devoted to ..., less attention has been paid to...
- However, there has been little research that examines ...
- The research has tended to focus on ..., rather than ...
- A considerable amount of research has been done on ..., but little on ....
- While X has been extensively studied, little attention has been paid to...
- The only scholarship to date has covered..., but not ...
- Scholars have emphasized X aspect, but remained largely silent on ...
Move 3: Occupying the niche

Outlining purpose
- The main purpose of this research is to . . .
- The objective of this research is to . . .
- My study will explore the relationship between . . .
- This project describes . . .
- The present research tries to clarify . . .
- This research proposes that . . .
- I introduce a new interpretation that . . .
- I will argue that . . .
- I have found that . . . and so I will . . .
- In this study, I suggest/propose/attempt/describe/explore/investigate/analyze . . .

Describing methodology/structure of the research
- My methodology will involve . . .
- I will examine . . . and . . . in order to determine . . .
- I will work with . . . data to compare . . .
- My research engages with . . . sources to . . .
- In chapter one of my thesis, I will examine . . .
- I have organized my dissertation in . . .
- The project is structured in [#] sections, each of which . . .
- Experiment 1 . . . experiment 2 . . . experiment 3
- First, I will develop . . . Second, I will compare . . ., Third, I will apply . . .

Significance and contributions
- My research contributes to a burgeoning field in X studies by . . .
- In doing so, I connect X with Y to shift perspective on . . .
- My research has implications for . . .
- In addition to its theoretical contributions, my research can be applied in/to . . .
- This research is significant in understanding . . .
- X and Y can have far-reaching implications for . . .
- Potential benefits of this research are better . . ., improved . . ., greater . . .
- This knowledge could inform decision-making/policy with regards to . . .
Tri-Agency & Ontario Graduate Scholarships – 2023-24 Competitions

- CIHR/NSERC/SSHRC CGS-M – Applications Due December 1st, 2022
  - $17,500.00 per year for one year
  - [OGPS CGS-M Page]

- NSERC: CGS-D or PGS-D – Applications Due September 28th, 2022
  - CGS-D valued at $35,000.00 per year for three years
  - PGS-D valued at $21,000.00 per year for three years
  - [OGPS NSERC Doctoral Page]

- SSHRC: CGS-D or Doctoral Fellowship – Applications due September 28th, 2022
  - CGS-D valued at $35,000.00 per year for three years
  - Fellowship valued at $20,000.00 per year for 1, 2, 3, or 4 years
  - [OGPS SSHRC Doctoral Page]

- CIHR: CGS-D – Applications Due September 28th, 2022
  - CGS-D valued at $35,000.00 per year for three years
  - [OGPS CIHR Doctoral Page]

- Ontario Graduate Scholarship (OGS) – Applications Due January 31st, 2023
  - Valued at $15,000.00 per year for one year
  - [OGPS OGS Page]