Propose and Defend
HCC Seminar
10/17/18

Getting to Know Other HCC Students (5 min)

Directions: In your small group, go around and introduce yourself! Starting with the 4th year, share your name and answer to the following question.

Question: What was your favorite childhood activity?

Learning About Proposing and Defending: Attend Them!

These are the last two requirements of the HCC program before you get out. While they aren't the end all be all for your research career, you do need to pass them to get your PhD. So what can we do?

- **Minimum**: Attend 1 Proposal and 1 Defense *every year*.
  - This is the best way to learn about the process, support your peers, and support the program.
- **Goal**: Attend at least 1 Proposal and 1 Defense *every semester*.
  - The more of these events you attend, the better prepared for your own proposal and defense you will be. Plus, it is a great way to support your peers, get to know the expertise of different professors, and support the HCC community.

If you're proposing or defending, make sure to send an email out to the HCC listserv too! This will help make it clearer to all HCC students (including junior students) that an upcoming proposal or defense if from an HCC student. We all need to do a better job of supporting each other.

Discuss:

No matter what year you are, there is always something to learn from attending these events.
- What have you learned from *attending* proposals and defenses?
  - If you have not been to any proposal or defenses, now is a great time to ask other students what they learned in their 1st and 2nd year of PhD from attending proposals and defenses.

Proposal

Sometime after the qualifying exam, the next major PhD milestone is the proposal. Most people propose within their 4th year—though some people propose early during their 3rd year and some people propose after a longer stretch of time. To help you figure out the proposal process, we've broken this down into three major tasks, each filled with guiding questions.

The Preparation

- **How should you decide when to propose?**
  - During your third year, you should bring up your proposal with your advisor.
    - *QUESTION for Discussion***:**
      - If you have started this conversation, share with your group what that conversation looked like.
  - Are you starting new research or continuing old research?
    - This will have an impact on when you propose! This is a highly individualized process and will look different for everyone.
  - Try to propose earlier rather than later.
    - Especially in the context of undertaking a new study, you want to be getting feedback you can take action on during your proposal process.
    - The earlier you propose in your project, the more able you are to incorporate feedback from your committee.
- **Selecting a Committee, what should you consider?**
  - *QUESTION for Discussion***:**
    - If you were to think about who you know now, what criteria would you use to pick committee members.
      - Remember, the longer you're a PhD student, the more relationships you'll have with people who could become committee members.
  - **What do you want out of your committee?**
    - Two general orientations:
      - 1) Selecting a committee that will pass you.
        - Focus on ease of passing.
      - 2) Selecting a committee that will push you.
        - Focus on intellectual-depth.
    - Another way to think about this question:
      - 1) Who do you want to write you letters of recommendation?
        - Does this change if you want to go into industry, academia, or alt.ac (non-professor, research scientist, etc.)
      - 2) Who will help you grow as a researcher and make your proposed research better?
        - Some committees are known for being notoriously hard, but this isn't always because they are pushing people to do better research. Sometimes committees just argue with each other and this can hurt your chances of passing.

- ■ If you are considering a notoriously loud or opinionated person on your committee, what are you hoping to gain from them?
- ■ How much contact do you want to have with your committee members?
  - ● Some members will only talk to you if needed, while others might be more involved.
    - ○ It is very normal NOT to talk with your committee outside of asking them to participate, scheduling, and sending them documents.
  - ○ **How should you go about selecting your committee members?**
    - ■ QUESTIONS For Picking Specific Committee Members:
      - ● Who in the department makes sense? Who do you have a good relationship with?
        - ○ Has a faculty member asked you to "Keep them updated on your research?" This may be a good person to have on you committee.
      - ● Are you going to a conference with someone you admire or want on your committee?
        - ○ If you're in the same location, that can be a great time to ask someone to be on your committee.
      - ● Are you building off of someone's work?
        - ○ Might be cool to ask that senior scholar to participate.
  - ○ **COMMITTEE REQUIREMENTS:**
    - ■ You should present your written Ph.D. proposal to a committee of *at least* four members: Your advisor(s) + 2 additional HCC faculty members + 1 other faculty from another academic unit in Georgia Tech (outside HCC) OR a committee member external to Georgia Tech.
      - ● You can always have more than the minimum for each area, so long as each area is covered
    - ■ All committee members must have a Ph.D.
    - ■ Committee members external to Georgia Tech need not be affiliated with a university.
- ● **Scheduling your Proposal presentation, what is the protocol?**
  - ○ How are you going to get all your committee members into the same room for 3 hours?
    - ■ ASK EARLY! How early?
      - ● Ideally, try to start scheduling at least two months before you plan to propose.
    - ■ Book your room as soon as you have an agreed on time.
- ● **Announcing your Proposal, when should you announce?**
  - ○ 10 days in advance of your proposal, you should send out an email announcing your proposal.
    - ■ Renee Jameson will be happy to help you generate your announcement.

- renee.jamieson@cc.gatech.edu
- **Responsible Conduct of Research (RCR Training), have you completed it?**
  - Before admission to candidacy, students must complete Responsible Conduct of Research training. This requirement is fulfilled by either CS 7001 or PHIL 6000.
    - See the announcements for some information on upcoming RCR training.

The Document

- *QUESTION for Discussion***:**
  - If you have seen/written a proposal, what did the document include? Did anything surprise about the document? If so, what?
- **How should you structure your document?**
  - Reach out to other students to see how their proposals looked.
    - How long should your proposal be? This will give you good idea of various lengths.
  - Download the Thesis template and start filling it in/deleting sections that aren't relevant for a proposal.
  - Talk with you advisors frequently about what you're proposing and writing.
- **How much time should you spend writing this document?**
  - The hardest part is figuring out what you're contributing, the outline of your proposed research, the organization of your document, etc. Once you have all these things, the rest should be done as quickly as possible
    - After the idea is hammered out, some people get the main writing done over the course of a week/weekend. Others spend 2 months writing incrementally. You know what works best for you.
- **What goes into this document?**
  - What new research are you proposing?
    - This is what your document and process is about.
      - Some people propose too much work! Almost no one proposes too little.
        - Often proposals cover 1 - 2 studies. Ideally they should be completable within 1-1.5 years.
    - Some people extend prior research and some people propose on a new topic. Both are valid options
  - PRIOR WORK: A lot of your document may have started as another paper or proposal.
    - Copy and pasting is fine, just make sure to tailor and smooth.
  - TIMELINE: How much time should your proposed work take?
    - Make sure to estimate how much time each step will take and share this info in your proposed research.
    - Depending on your research, timelines range from one to one-and-a-half years.
  - Be realistic! You don't need to propose too much.
- **When should this document be done?**

- ○ You need to send this to your committee members at least 2 weeks before the proposal.
    - ■ For planning purposes, some recommend having a draft of this document ready 1 month before your proposal is scheduled.
- **DON'T OVERTHINK IT!**
    - ○ Your proposal is NOT an archival document.
        - ■ This is an internal, barely read document. Don't try to make it perfect or spend too much time on it. For a little perspective, it's not likely that everyone on your committee is even going to read it all the way through.

The Presentation
- **What should your presentation cover?**
    - ○ Seek out previous presentations to get inspiration for your own.
    - ○ **What is the story you want to tell? How will it make an impact?**
        - ■ You CANNOT cover everything in the document. Make sure you cover the highlights that help tell the story of your proposed research.
    - ○ Who is on your committee?
        - ■ You will probably be able to guess what kinds of questions people will ask and what information they want to see covered in a talk.
    - ○ What kind of presentation would you like to give?
        - ■ It's your research, make sure to put your own personality into it.
    - ○ End presentation with a slide on research questions and contributions.
        - ■ This helps guide the discussion and Q&A.
- **Practice Practice Practice, how often should you practice?**
    - ○ Make sure to practice on your own, and in front of your peers.
        - ■ You can host private practice talks or invite whole listservs. This is really important to help you get the actual talk smoothed over and to practice answering questions from the audience.
- **Who should you invite?**
    - ○ These events are open to the public. Invite whoever you'd like to have there.
        - ■ People can and do invite family members.
        - ■ If you're working with a local community, they may want to attend.
- **Be open to feedback**
    - ○ The proposal is NOT a defense. It's a great time to get feedback.
    - ○ Ask your advisor if they are planning on taking notes!
        - ■ This will help you remember what was said and utilize it.
- **Do you need to bring refreshments?**
    - ○ While many people bring food, you do NOT need to. If this is something you want to do or like to do, you absolutely can. However, if this adds stress to your life, don't let this add to the stress of the day.
        - ■ Some people see this as a great way to ensure their committee is happy and fed aka in a good mood for the proposal.

GT Resources

- For all IC PhD students: http://catalog.gatech.edu/academics/graduate/doctoral-degree-info/
- For the Ph.D. students in HCC: https://www.cc.gatech.edu/academics/degree-programs/phd/human-centered-computing

Defense

When you defend is going to be highly personal. Ideally, you'll be on target with the timeline you've created. While many of the questions you need to consider when proposing remain the same, there are some new additions when defending that we cover below. The thesis defense is a highly emotional and transitory phase of life, make sure to take care of your emotions in this process!

The Preparation

- **Adding an additional committee member, for a total of 5 (at least)**
  - In addition to the 4 from your proposal committee, at least 1 committee member must be external to Georgia Tech.
    - The dissertation must be publicly defended before a dissertation committee of at least five members:
  - Should you change your committee?
    - Ideally, you'll only be adding members to your committee, but you can make changes if necessary. Before making any changes check with your advisor. Be sure that you're still meeting all the requirements about internal/external members of your committee.
  - Scheduling, how early should you start?
    - Remember, the more people in the committee, the harder it is to schedule. Make sure you start scheduling early.
- **Announcing your defense, what is the protocol?**
  - When do you announce your defense?
    - The defense must be publicly announced at least 10 days in advance.
      - Work with Renee Jamieson to generate this announcement.
  - Do you need approval before announcing?
    - This is not common in HCC, but if you are working with professors who do more in CS, they may expect that you will not announce your proposal until they give you the go ahead.
      - Be sure to ask your advisor for advice on this issue.
    - There is additional information on this topic in the document section.
- **Reflect and learn, especially on things that did not go well**
  - You are the expert on this topic. There will be some things you notice that other people do not notice as a result.
    - Your committee couldn't find these issues with a flashlight and a map, only you have the flashlight and the map!
    - It is healthy and helpful to be explicit about the things that didn't go so well.
  - A lot of people are asked to write an extra chapter about what comes next.
    - This is a great place to be honest about what didn't go well. Could use this as line of thinking for what comes next/how to improve.
    - You need to do this if you're asked of it, even if you don't intend on actually following up on this research in the future.

The Document

- **Where to start?**
  - Ask peers and former lab members to see their dissertations! This is a great way to figure out what to say and how to say it.
  - Start with the intro!
    - This advice is to ensure that your document has a uniform perspective and argument.
    - After writing your dissertation, you'll likely see many ways you could have written it.
    - This is why starting with the intro is important. You'll inevitably come back and tweak the intro, but knowing what you want to say, why you want to say it, and how you are talking about your defense contribution will help you write the rest of this document.
  - Should you use your proposal document?
    - It's up to you. Some people barely looked at their proposal and started clean, other people added to their proposal.
      - This also depends on when in the research pipeline you proposed.
- **Formatting, what do you need to know?**
  - Make sure you're working from the dissertation template.
    - This is an archival document with a set or rules and procedures.
    - The library has a ton of great resources on writing your dissertation:
      - http://www.gradadmiss.gatech.edu/theses-dissertations
- **How much of the writing is *new* v. already published?**
  - Some people include nearly every article they published in their PhD in this document. It depends on the topic, the advisor, and the committee.
    - Some people were shocked by how little original writing went into this document.
    - TWEAK and TUNE!
      - It's important to make sure everything uses the same language and fits into a single cohesive document.
    - You might find yourself putting lit reviews in one section, methods in another, and breaking up the prior publications in various ways so they fit the narrative well.
- **Getting the dissertation document ready, what do you need to do?**
  - Submit and receive approval naming the dissertation topic and delineating the research topic
  - The dissertation document must be approved by the committee before the defense is announced
    - This is covered in more detail regarding approval before announcing. This is not a well-covered topic in the HCC community. If you're concerned reach out to Renee or Tucker Balch for more information

- Essentially, it involves emailing your committee members in advance and stating:
  - Hey committee, I want to send out an announcement in a few days, I want to make sure you are all okay with me proceeding, etc.

The Presentation
- **Just before, Practice Practice Practice, how often should you practice?**
  - Defense is the most unknown part of the PhD requirements. There typically aren't people around who have completed this step.
    - Practicing can help overcome the nerves of the unknown.
  - Answering questions is a really important part of this process. Practicing with students can help prepare you for this part of the presentation.
- **Test your technology set-up.**
  - Zoom, the conferencing tool may be your best bet for video conferencing. (recommended by prior students)
    - You will most likely have external members who need to call in. Make sure your tech setup can handle a long call.
- **End presentation with a slide on research questions and contributions.**
  - This helps guide the discussion and Q&A.
- **Be prepared for an experience you might not have expected.**
  - If everything goes as it should, you'll have a committee that is excited by your work and rooting for you.
    - This is not the image many of us have for what the defense will go like.
- **5(ish) signatures and you're done!**
  - After this, you'll have your "license" to keep doing research.
  - Make sure you bring the paperwork you need signed to your defense!

GT Resources
- For all IC PhD students: http://catalog.gatech.edu/academics/graduate/doctoral-degree-info/
- For the Ph.D. students in HCC: https://www.cc.gatech.edu/academics/degree-programs/phd/human-centered-computing

Sharing Tips + Announcements + Q&A
Sharing Tips: Learn something in seminar today? Now is a great time to share out.

Questions & Announcements

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Before admission to candidacy, Ph.D. students must complete Responsible Conduct of Research (RCR) training. This requirement is fulfilled by either CS 7001 or PHIL 6000. If you haven't taken this RCR training, Brianna kindly reminds us that a 2-day RCR class PHIL 6000 will be offered at the beginning of the Spring 2018 semester. This class is particularly good because it won't occupy anytime during the semester:

- **PHIL 6000 (CRN 24926)**: Jan 4th and 5th, 9:05 am - 4:55 pm

If you don't get a chance to share tips, questions, or announcements during the meeting, please email the HCC listserv and/or Marissa and Hayley to follow up.