Information Systems Research Seminar:  
Classical and Theoretical Foundations  
MGT 9250 (Section 001)  

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**Official Class Hours:** Wednesdays (3:30pm –5:45pm – official, but class might go well over official time slot).

**Seminar Room:** 129 Sirrine

**Office hours:** Wednesday (5:45-7pm, after class, +by appointment in Suite 132 Sirrine)

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**A Caveat**

In describing the course, I often use the term "temporal" and "theoretical" anchor points to describe the vast repertoire of readings. These readings reflect the dual goals of providing an overview of the field from a temporal perspective as well as an anchoring of the field in some of the major theoretical lenses. Earlier in the evolution of the field, it was easier to find these anchors. Now, with a longer than 40 year history - there is greater subjectivity in selecting key anchor papers, as the knowledge-base is much larger and broader. Therefore, while I would encourage you to form your own schema of the field - with the caveat that this course represents one set of important anchors that I believe can help you structure your schema.

**Preparing Stewards of the Discipline: Why are YOU doing a PhD?**

This course begins your journey into the discipline of your choice - in this case it is Information Systems. As a doctoral student, it is useful to revisit the reasons you have embarked on this quest for building knowledge. The Carnegie Foundation believes that it is timely to return to first principles, and ask "What is the purpose of doctoral education?" Taken broadly, the answer is to educate and prepare those to whom we can entrust the vigor, quality, and integrity of the field. This person is a scholar first and foremost, in the fullest sense of the term. Such
a leader has developed the habits of mind and ability to do three things well: creatively generate new knowledge, critically conserve valuable and useful ideas, and responsibly transform those understandings through writing, teaching, and application. We call such a person a "steward of the discipline."

**Generation.** The Ph.D. is, at its heart, a research degree. Demonstrating one's ability to conduct research and scholarship that make a unique contribution and meets the standards of credibility and verifiability is the culminating experience of the Ph.D. degree. One skilled at knowledge generation is able to assess, critique, and defend knowledge claims. A steward is able to ask and frame important questions. Traditionally, this has been the most thoroughly developed aspect of doctoral education. Even so, we often do not deliberately consider what experiences teach students to become excellent researchers. The "pedagogy of research" is an underdeveloped field.

**Conservation.** Another facet of disciplinary leadership is an understanding of the history and foundational ideas of the discipline. Disciplines evolve continuously, and stewards have responsibility for maintaining the continuity, stability, and vitality of the field. A Ph.D. recipient should understand the foundations of the field; which ideas to keep and which to reject. Moreover, a steward should understand how their discipline fits into the intellectual landscape, have a respectful understanding of the questions and paradigms of other fields, and understand how their discipline can speak to important questions.

**Transformation.** Finally, the third facet, transformation, speaks of the importance of representing and communicating ideas effectively and clearly. Transformation implies teaching in the broadest sense of the word. Those who are expert practitioners of their field will be called upon to teach, regardless of their work setting. Whether working in a classroom, non-profit or governmental organization, industrial setting, or policy arena, a steward must be able to convey information and the value of their knowledge and skills. Transformation also implies application. Knowledge is used in a variety of settings, and a disciplinary leader must understand the range of uses to which knowledge can be applied. Such communication calls upon skills that ought to be developed during the apprenticeship period. A steward can communicate in oral and written forms to technical and lay audiences. Transformation also suggests that stewards must understand and appreciate how to communicate across traditional disciplinary boundaries.

The use of the term "steward" is deliberately intended to convey a role that transcends a collection of accomplishments and skills. A steward of the discipline is a person entrusted with care of the discipline by those in the discipline on behalf of those in and beyond the discipline. There are conservative aspects to the term, implying the preservation of the past. A Ph.D. holder thinks about the continuing health of the discipline, and how to preserve the best of the past, the heart and essence of the field, for those who will follow. But there are also
important forward looking meanings; stewardship does not imply stasis. Stewards are caretakers who direct a critical eye toward the future. They must be willing to take risks and move the discipline forward. Ultimately, stewards consider how to prepare and initiate the next generations of leaders. And in all their work, they act with responsibility and according to the highest ethical standards.

**Broad Thrust of this Course**

We are in the digital-age. Catalyzed by information technologies, the field of IS has evolved - and information, knowledge, information technologies and their manifestations at the individual, group, organizational and inter-organizational levels are becoming increasingly important and profound. As potential researchers in this area, we have tremendous opportunities to traverse growing and changing knowledge gaps regarding the transformational aspects of information technologies in business, organizations and society. The burgeoning information technology catalyst has propelled the “field” of information systems (IS) from one that was consistently challenged as a business school discipline, to one that is relatively more accepted within the academic context. The field has struggled with definitional issues and credibility – but IS researchers have responded through self-governance and enforcement of standards in the conduct and quality of research. Today, IS research is comparable in rigor to the best disciplines within the social sciences. Some have even suggested that it is far tougher to get published in top IS journals than other major journals in business disciplines. While a number of issues remain with the core of the field, such as the difficulty in building sustainable theory within a rapidly changing technological environment, the challenge in addressing the “big” questions of our time, the place of technical versus managerial research, the ability to create a strong conduit to practice, the degree to which IS can be absorbed by other business disciplines, the acceptance of methodologies with different philosophical assumptions, the role of electronic journals, among others, I believe that there is room for optimism about the future. In fact recent technological trends in cloud, analytics, big data, mobile and social computing have created a new “buzz” for businesses and opportunities to enhance and reconfigure existing theories in new and emerging IT contexts.

Despite the ongoing changes in technology, the field as it stands today, is very much influenced by its foundational thinkers who stimulated debate on (what was then considered) new and different perspectives. It also draws from a number of diverse theoretical lenses many of which are adapted from related (reference) disciplines. It is important for a new doctoral student venturing into this area to construct his or her own schema of the field so that new knowledge can be effectively synthesized. To do this, it is useful to understand key “anchor points” in the field over both time and domain. This course is intended to provide you with these anchor points – so that you can begin your journey of filling in the gaps and creating a logical structure of the field that will frame your further
absorption of knowledge. Over time, we look at influential (classical) papers that made a difference in the field. While where we have been is not necessarily a prelude to where we are going, a sense of the roots of the disciplinary tree, history, socialization of knowledge, and the role of the technological catalyst puts the field in perspective. Over domain, we examine key but necessarily incomplete theoretical underpinnings of the discipline. We will also observe a largely a positivist epistemology – so the perspectives espoused here represent an important skeleton of the field – and do not claim to be the only perspectives. Remember, this is only the beginning – and from the dots you encounter in this seminar, you will have the opportunity to build your own picture as you engage with further readings and research through your doctoral study and beyond.

In addition, the course will also start you on the conceptualization of a research paper – which will be implemented in the subsequent seminar. Learning-by-doing and learning-through-frustration is perhaps the best way to struggle through the vagaries of the research process. Let the experiences begin.

**Course Objectives:**

As the first formal research seminar in Information Systems, this course will have the following (ambitious) objectives:

- To provide an overview of key classical articles pertaining to the area of Information Systems.
- To introduce key theoretical perspectives that allow IS phenomena to be examined from different vantage points.

In doing so, the course will foster the ability to critically think and constructively criticize research papers in the area, as well as begin to form the foundation for building an individual schema for the field. In addition the course will:

- Provide an opportunity to conduct a major research study through a continuous process of interaction with members of the class and guidance from the instructor. This project (conducted in teams) will be implemented in the Spring semester as part of MGT916. The ultimate goal is to surmount the tremendous challenge of producing work that has a chance of being published in top IS journals while you are still in the doctoral program.

As part of this course, the following learning objectives will be emphasized and assessed. After this course students will:

- Comprehend the foundational systems elements of the IS field.
- Comprehend the evolution of the field and its relationship to information technologies
• Comprehend and apply the basic tenets of theory and methods

• Begin to understand anchor papers that can be used to structure a schema of the IS field

• Have the ability to compare and contrast tradeoffs in conducting research

• Have the ability to provide basic structure and organization to a research project

• Have the ability to present and defend opinions by making judgments about validity of research and quality of research products

• Start acquiring the ability to critically assess the IS field and take a position on moving it forward.

**Approach:**

The course will involve weekly discussion of assigned articles. **It is expected that you will attend every scheduled class in its entirety.** The articles are listed in this syllabus and will be provided to you in electronic form. They could be supplemented or replaced - at my discretion. There will be a discussion leader (or leaders) for each article and he/she/they will manage the discussion as per the guidelines below.

**For article discussion:**

Each paper will be assigned a discussion leader in advance (usually in the prior class). The discussion leaders are expected to prepare a 1-2 page (single spaced) write-up on their assigned article. They will distribute a copy of the write-up and lead the class discussion. The write-ups should clearly have the paper’s citation and the discussion leader’s name at the top. It should be a written repository of the interpretation of the article by the reader and should provide the structure for facilitating the discussion. As such, these write-ups can be useful compilations for comprehensive exam preparation. More importantly, I want students to “read,” “think” and “interpret.” The write-up should contain two sections:

(a) A summary of the key takeaway points as discerned by the reader, and

(b) An interpretation of the article.

For (b) this could include responses to questions like:

• How did this article influence thinking in the IS field at that time?
• What is its contribution with respect to contemporary IS environments?
• How does it relate to other articles and practices?
• Does it espouse a theoretical perspective that is useful to study IS phenomena and why?
• How has it influenced your thinking of the field?
• Are there aspects here that are unclear, make too many assumptions or could be subject to other criticism?

While not all these questions may be relevant for every article under consideration, the essence is to demonstrate that you have gone through the read-think-interpret process. Keep in mind that the write-ups (or class discussions) are not primarily intended to be critiques. While you will have many opportunities to criticize, at this stage of your career it is more useful to assimilate and interpret. The critical element of the write-ups and discussion will increase as we move into the latter half of the course. With a stronger foundation under your belt, you will increasingly be in a position of strength with regard to criticism of others’ work.

The class discussion should have at least four components:

1. Summary or overview of the article
2. Assessment of article’s contribution to the IS literature (and to practice), i.e., where it fits into your schema.
3. Assessment of future work that can build on the study.
4. Discussion of article’s strengths and weaknesses, with particular emphasis on positioning/philosophy/methodology

In order to make sure the discussion is productive, the following “tips” are offered:

• The discussion leader needs to be well organized. This indicates a “plan” on how to involve others in the discussion in order to get the content on the table.
• Discussions that have the discussion leader regurgitating from the paper are usually not effective
• All participants in the discussion should not open the actual paper, but refer to their notes (unless a specific statement or issue requires that the paper be examined)
• Prior interaction or coordination with students (physically and/or electronically) could facilitate a productive discussion.

While there is no set duration for the discussion (although typically it goes 50 minutes or longer), I will conclude it when the implications of the article have been brought out, the discussion is becoming unproductive or has reached diminishing returns. I will then complement the discussion with any additional thoughts. This process encourages individuals to work hard in thinking deeply about the article, group dynamics to bring the key aspects out, and instructor intervention to (hopefully) complete the picture.

Within the week following the discussion, I will send a group email that indicates the level of discussion for each paper. Typically, this will be at two levels – “good” or “great” with brief feedback on any diagnostics.
IT IS CRITICAL THAT EVERY STUDENT READ ALL PAPERS ASSIGNED AND CONTRIBUTE THEIR PERSPECTIVE DURING OR AFTER THE DISCUSSION LEADER'S PRESENTATION. LACK OF PREPARATION WILL BE APPARENT TO ME AND WILL BE NOTED.

Please note that there have been occasions in the past where a 2.5-hour class has gone over 6 hours. But, this is doctoral study.... I assume that you are here to learn and I am willing to make the commitment to you if you are toward yourselves. This makes time (almost) irrelevant.

For project: Two teams of two students each will be formed at your discretion. By the end of the second month of classes, a set of project proposals from each team will be circulated and discussed. Ideally, I would like ONE project to be empirical and ONE to be a theoretical review piece. However, I'm flexible on this issue.

For the empirical project, four key elements should be in place:
1. It should be empirical (and positivist) in nature
2. It should have a strong theoretical perspective, building on existing theory
3. The time frame should be carefully considered (even though difficult to predict).
4. It should address a substantive issue (both relevance and rigor).

For the theoretical/review project, the objective will be to produce a product that will be publishable as an MISQ Review piece. It should have the following elements in-place:
1. A topic area where there is diverse research that can benefit from synthesis in order to clarify knowledge coalesced.
2. It should promote research by surveying and synthesizing prior theoretical and empirical research. It could possibly involve meta-analysis.
3. It should set directions for future research.
4. It should act as a repository for the knowledge that has been accumulated on an important topic within the information systems field and advance theory in that topic area.

A few classes after mid-semester, about half the seminar time will be devoted to the discussion and evaluation of projects. Key deliverables will be defined for each week in order to ensure progress. Students will be asked to make a presentation each week on their progress. IT IS IMPORTANT THAT ALL STUDENTS ARE INFORMED AND PARTICIPATE IN BOTH PROJECTS – TO ENSURE A WIDER LEARNING EXPERIENCE. Your involvement in the "other" project will specifically be evaluated as part of participation. This is a learning process and perhaps the most help you will get in doing a research project – which can and will be very frustrating at times! The goal is to conceptualize the project so that it can be implemented in MGT916.
As part of this Seminar, you should gain insight into important facets of research in the IS field, including:

Knowledge Drawn From Other Fields:
To become a truly active and contributing member of the community of IS scholars; one must understand not only the research methods and approaches in one's own domain but also the research methods used in neighboring domains. There are at least two reasons for this. First, no business enterprise can be viably separated into an accounting module, an information systems module, a finance module, a marketing module, a strategy module, a human resource management module, a management science module, etc. Therefore, a person doing research in any one of these domains of management eventually and inevitably comes into contact with people doing research in the other domains. In the same way that proponents of business processing reengineering believe that a business must integrate across its functional silos not only to prosper but even to survive, I believe that we as management researchers must similarly conceptualize across our disciplinary silos not only to be able to publish, but also (and more importantly) to be able to do research that our constituents (executives and managers in corporations) will find relevant, practical, and fundable. While this seminar focuses primarily on IS research, I believe that it is important to assimilate alternative perspectives from other fields, particularly strategy, organizational behavior, economics, marketing, accounting, innovation, and sociology. Many theories from these fields can be found in the eclectic IS area, but independent study of theories in these fields could be very important.

The Packaging of Papers
Successful publishing requires you to communicate complex ideas simply, logically and elegantly. If reviewers do not understand your paper or get lost in the logic (or lack thereof), then good ideas get obscured and remain unpublished. As we go through a plethora of papers, place close attention to how these papers are “packaged” and how the ideas have been communicated. This will facilitate your own development as researchers as you attempt to communicate your research (including the doctoral dissertation).

The Trials and Tribulations of a Review Process
Time permitting, I will devote at least half a session to the topic of reviews in the IS field. I will share with you one review process that was undertaken in IS, and highlight the difficulties in going through a multi-round review. The objective of this session will mainly be revelatory and descriptive - but I will use the case to provide tips on getting published in major journals. If we do not get to this, there will be many opportunities in class where we can discuss the publishing and review process.
Open Sessions

I might relegate a portion of a session as an “open session” where you will have the opportunity to ask any questions that have been nagging you. These could pertain to research institutions (journals, conferences, professional associations), reviews, doctoral study, dissertation process, comprehensive exams, recruiting, tenure, or any other relevant topic.

Evaluation:

<table>
<thead>
<tr>
<th>Evaluation Category</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Project Proposal: Quality of project (including the extent to which it is conceptualized for implementation). This will be in the form of a 15 page write-up.</td>
<td>30%</td>
</tr>
<tr>
<td>Article write-up completion</td>
<td>10%</td>
</tr>
<tr>
<td>Class Participation: this means both volume and quality. Quality implies “value added” through understanding, integration, novelty and insight. Asking a question is different from raising it and attempting to answer. Mere criticism is different from constructive criticism. (Good preparation and effort should be evident in participation)</td>
<td>50%</td>
</tr>
<tr>
<td>I may also have one or more round robin in-class quizzes regarding paper content</td>
<td></td>
</tr>
<tr>
<td>Project Progress: Quality of project presentation and discussions</td>
<td>10%</td>
</tr>
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Academic Integrity

As members of the Clemson University community, we have inherited Thomas Green Clemson’s vision of this institution as a ‘high seminary of learning.’ Fundamental to this vision is a mutual commitment to truthfulness, honor, and responsibility, without which we cannot earn the trust and respect of others. Furthermore, we recognize that academic dishonesty detracts from the value of a Clemson degree. Therefore, we shall not tolerate lying, cheating, or stealing in any form. In instances where academic standards may have been compromised, Clemson University has a responsibility to respond appropriately and expeditiously to charges of violations of academic integrity.

Please refer to the current Graduate School Policy Handbook for the graduate academic integrity policy at

www.clemson.edu/graduate/students/policies-procedures/index.html
**Disability Access**

It is university policy to provide, on a flexible and individualized basis, reasonable accommodations to students who have disabilities. Students with disabilities requesting accommodations should make an appointment with Disability Services (656-6848), to discuss specific needs within the first month of classes. Students should present a Faculty Accommodation Letter from Student Disability Services when they meet with instructors. Accommodations are not retroactive and new Faculty Accommodation Letters must be presented each semester.

**Missing Class**

I will expect you to be present and prepared in each and every class. It is fairly obvious if students are unprepared or if they have not devoted considerable time to understanding every assigned paper. While I understand the inability to assimilate the complexity of all the material (which is why we have the class discussions), but I cannot understand or condone the lack of effort. Only in cases of unavoidable emergencies after notifying me a-priori, can you miss class without penalty.

**Notes**

It is important to emphasize that this seminar will be demanding. However, in a positive vein this should be viewed as an opportunity – not a threat. As is true with most of your doctoral education, the more you put into this, the more you will get out of it. As indicated earlier, there will be occasions where the 2.5-hour time limit/week may not suffice and we will go significantly over the limit. If that is a concern, let me know a-priori. Otherwise, I shall assume that you are all here to learn as much as you can about IS research.

**Contact**

If you have any concerns or problems during the course, feel free to talk to me. I am not unreasonable and will attempt to resolve them to the best of my ability. You can see me after class during office hours, or you can e-mail me to set up an appointment. But, perhaps the best way to get a response to a quick question or concern is through e-mail (vgrover@clemson.edu). It usually works better than you might think!!!
READING LIST FOR MGT 925

This list represents carefully selected readings that are intended to provide a broad overview of the foundations and theoretical perspectives in IS research. In some cases, the theory is the major component of the paper, while in others it is used to frame the study of a phenomenon. As you read through these papers, keep in mind my caveat -- (a) these represent only a segment of IS research and their selection does not necessarily imply that this is the “best” selection. Others in the field might have a different schema for the field. (b) The categorization should not preclude you from developing your own schema. Many of the papers within and across categories are interrelated. It is these connections that allow you to make the fragments meaningful. (c) Articles in **bold** represent the ones I would like to assign and discuss in class – although I might adjust these assignments during the class. There are around 75 of 185 papers assigned. Given my inclination to invest more time in each paper than typical seminars, it is possible that we will not complete all discussions and might take some of the introspective papers to the next semester. You are encouraged to read the other papers to in order to get a better understanding of the areas.

The number of sessions in parenthesis represents an approximate duration for the category. Actual times will vary. All papers will be provided to you on a USB drive.

**Information Systems Classics (2.0 SESSIONS)**


Traditional Information Systems Frameworks (2.0 SESSIONS)


Theory in Information Systems


Broad Streams of IS Research and their Theoretical Contributions

IT AND CORPORATE VALUE STREAMS

*Strategy, IS & Competitive Advantage (1.0 SESSIONS)*


**IT-Value Research: Productivity/Value/Effectiveness of IT (1.0 SESSIONS)**


Digital Business Strategy (1.0 SESSION)


In Special Issue of MIS Quarterly on “Visions and Voices on Emerging Challenges in Digital Business Strategy”: 

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IT AND THE ORGANIZATION STREAMS

IT and Organizational Interaction (1.0 SESSION)


55. Jon (Sean) Jasperson, Traci A. Carte, Carol S. Saunders, Brian S. Butler, Henry J. P. Croes and Weijun Zheng: "Review: Power and Information Technology Research: A Metatriangulation Review," MIS Quarterly (26:4), December 2002, pp. 397-459. **** This is an MISQ Review article and MUST be read by the group that is engaged in the review project.


**IT and Organizational/Inter-Organizational Governance Impacts (2.0 SESSIONS)**


**IS CAPABILITY STREAMS**

*Innovation and IT (1.0 SESSION)*


**IT and Business Process Redesign (0.5 SESSION)**


**IT and Knowledge (1.0 SESSION)**


**IS DEPLOYMENT STREAMS**

*System Development/ Implementation and Organizational Change (1.0 SESSIONS)*


IT AND INDIVIDUAL OUTCOME STREAMS

Individual Impacts (2.0 SESSIONS)


Debate on Technology Acceptance Model


EMERGING (DIGITAL) TECHNOLOGIES

Cloud, Mobile, Social, Big Data, Analytics, Platforms, etc.(1.0 Session)


INTROSPECTIVE STREAMS

**Evolution/Intellectual Structure of the Field (2.0 SESSIONS)**


125. Wanda J. Orlikowski and C. Suzanne Lacono: "Research Commentary: Desperately Seeking the 'It' in IT Research--a Call to


Recent Debate on Reference Disciplines and IS (Special Issue of JAIS and ICIS Panel)


MISCELLANEOUS ARTICLES (read at convenience)

Methodological Guidelines in Information Systems Research


**Good Foundational Papers on Scientific Inquiry:**


**Other “Theory-based” Empirical Studies:**


Eric K. Clemons and David C. Croson: "Market Dominance as a Precursor of a Firm's Failure: Emerging Technologies and the Competitive Advantage


While the above arguably represents the crux (mainstream) IS research, there are many other interesting avenues that might have limited representation in the above list. These include: IS project management, IS alignment and governance, IS role in e-Commerce, economic modeling of IS variables, IS security, IS and virtual groups, IS politics, etc. More recently, there are articles that are examining emerging phenomena in business analytics and big data, social media and social networks, cloud computing and mobile technologies. Some of these are subsumed above, but others are codified and evolving.
ADDENDUM 1: TYPICAL OUTLINE OF A RESEARCH PAPER AND A DISSERTATION

• Introduction (or Chapter 1)
  o Well-documented motivation from the real world for the problem you select
  o Explanation of why the problem is appropriate to study in the context of the literature reviews on IS
  o Statement of research question

• Background Literature (or Chapter 2)
  o Overview of three (?) relevant areas of theory that apply to your problem
  o Survey subsections
    • Discussion of relevant literature #1
    • Discussion of relevant literature #2
    • Discussion of relevant literature #3
  o Your findings as a synthesis of the literature

• Model Development (or Chapter 3)
  o Modeling preliminaries and considerations
  o Conceptual / empirical / exploratory / analytical model development
  o Model hypotheses

• Research Methods (or Chapter 4)
  o General rationale/description of method (RESEARCH PROPOSAL ENDS HERE)
  o Description of relevant research design (data, sampling, unit of analysis, respondent, operationalization, descriptives)

• Analysis (approach, assumptions, validation, hypotheses support) (or Chapter 5)

• Discussion of Potential Findings and Outcomes of the Research (or Chapter 6)
  o Discussion of findings and contributions
  o Assessment of relevance to IS research audience and managerial audience
    (It is critical to close the loop between your motivation and theory at the front end to your pragmatic and theoretical contributions at the back-end)
  o Limitations

• Conclusion
ADDENDUM 2: GUIDELINES FOR A THEORY/REVIEW PAPER

For a Review Paper you have various model articles in the reading list above some of which are repeated below. You MUST read all of them carefully and carefully note the structure, boundary conditions, approach, tabular summaries, value-added, synthesis, take-aways, etc.


ADDENDUM 3: Student Profile (MGT 925/Fall 2010)

NAME:__________________________________

List two MAJOR reasons why YOU are pursuing a doctorate.

List ONE reason on why you chose Information Systems as your major field of study?

What position do you see yourself in once you graduate. Indicate the nature of the institution (research university, teaching university, community college, business enterprise, etc.). Provide a specific example of your “ideal” institution (regardless of the job market) and your realistic institution (keeping the economy in mind).

What do you see as the biggest impediment to YOUR completing the PhD successfully?

What personal trait do you see as critical in YOUR successful completion of the PhD?

Have you developed any general interest area in which you would like to pursue research? If yes, briefly describe the area.