

Course Reflection

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This unit was perhaps one of the most intense courses I've had. The topics were diverse, and the classes were fast-paced and a lot of fun. The sheer amount of concepts we learned over the course of just 14 days is ridiculous. There were topics I enjoyed more than others, but I really appreciate the variety. It's interesting to read other people's course reflections, and see how the topics that resonated most with some were the ones I enjoyed least; or how the topics I absolutely loved were ones that didn't really resonate with some others. It's nice to see how the course had something for everyone.

I genuinely loved the atmosphere created in class. Now that the unit is over, I find myself missing it a lot. There was something very open and lively about it. The discussions we had in class were very engaging, and I really liked listening to other people's ideas and interpretations. The class discussion on the Southwest Airlines' strategy, for example, was very interesting, and helped solidify the concept in my head.

I also liked how there was room for discussion on topics that were not necessarily related to the class itself. I really enjoyed the discussions on MBTI theory in class, and it made me happy that it got some classmates interested enough to ask me to explain the theory to them. (Even though reading some reflections made me realize that I probably didn't do such a good job of explaining.) I've never had friends interested in the theories I like to read about, until now, and I really enjoyed discussing it with them outside of the class as well.

Each day's class was very well structured, and had a natural flow to it, while simultaneously also being rather random, and jumping between seemingly unrelated concepts. However, the different concepts were strung together seamlessly, and came together in interesting and unexpected ways; like the emergence of Voronoi in the data collected about the 1854 Broad Street Cholera Outbreak. I really liked how it was all connected. Each concept was also explained really well, making it easy to grasp quickly.

I did find the workload quite demanding. It was rather difficult to keep up with, and accumulated really quickly; there was no space for a single day's lag. I also felt like I wasn't equipped well enough to work on some of the assignments; for instance, I didn't want to work on the Chikkabommasandra assignment, because I felt like my understanding of Game Theory and the Hotelling phenomenon wasn't good enough, and I didn't have enough information about the place itself. It was a really interesting assignment, and I feel like I didn't do it justice.

The sheer volume of work also made it difficult to genuinely engage with each assignment with the depth it required. I am dissatisfied with a lot of my submissions; including the analyses for the films Gandhi and Erin Brockovich.

Erin Brockovich specifically, is a very dense film, and I think each scene is worthy of being analyzed independently. It becomes very difficult to do it justice when writing an analysis based on a single viewing.

My favorite topic from the unit is probably Game Theory. I know I've mentioned this quote in a previous reflection as well, but "When you can't beat the odds, change the game," remains one of my favorite lines. I love how the book it is from had such clear manifestations of Game Theory.

We looked at literature through the lens of Game Theory; I believe it would be worthwhile to go about it the other way round as well. Game Theory could be a very interesting approach to writing; and writing a short piece with the insights it presents could help develop an even deeper understanding of Game Theory. It could also potentially be a very interesting piece. It is definitely something I would like to try working on.

I really loved how the introduction of each topic began with art; Kandinsky, Shakespeare, Wordsworth. This gave the topics emotional context and grounded them with relatability. The excerpt from The Three Musketeers used to introduce Game Theory was masterfully chosen; it was very intriguing, and as the context became clearer and the characters familiar, the tension heightened and I got invested in the characters. I don't usually like class readings of literature, but I was thoroughly enjoying myself.

“At these words, with the most gallant air possible, d’Artagnan drew his sword,” was perhaps the most infuriating place to end the reading. It was also very clever. It made me insanely curious to find out what happened next, and I really wanted to continue reading. I intend to read the entire book when I find the time.

The text had many layers; and an understanding of Prisoner’s Dilemma lent very interesting insights to the analysis of the story. D’Artagnan’s strategy was not as simple as it seemed at first sight; his many co-operations had two subtle defections hidden between them. Using Game Theory as a lens gave me a much better understanding of d’Artagnan’s character. I really enjoyed reading the text multiple times and analyzing it for the assignment.

Analyzing media to identify co-operations and defections was a very illuminating exercise. It also helped that we had to work in groups, so we could talk through our differing perspectives, and gain a more well-rounded understanding. The exercise clearly demonstrated the nuances of real-life situations, and how difficult it is to classify human behavior into binaries.

It is a powerful tool that provides perspectives unique to itself, and I spent a lot of time after class reevaluating scenes and character interactions from stories to fit my new insights to them. It made me look at the same situations in a new light, and I found the new perspectives very valuable. At the same time, this kind of binary classification can also be overly simplistic, and like any tool, has its limitations.

The class dealt with Prisoner’s Dilemma in a lot of depth. The Evolution of Trust on Nicky Case’s website very effectively conveyed the concept throughout its escalating complexity, without making anything too difficult to understand at any point. I think it was a very well-chosen tool. It allowed us to learn by ourselves, and the explanation in class supplemented and enhanced our learning. I really liked this aspect of the class; it integrated self-learning and peer-learning with clarification, and created a great environment for asking questions as well as exploring the concepts and taking them further by ourselves.

Returning to Game Theory on multiple days to look at it from different angles also helped build a stronger understanding of it. Applying the concept to a variety of contexts— literature, business, everyday life— in each subsequent class built upon previous understandings and created a much clearer picture. Each context provided valuable new insights; segregation, social Schelling points, Chesterton’s fence, and there was a lot to learn from each context.

The class also helped build a vocabulary that makes ideas easier to communicate. It’s very convenient to be able to say, “Basically, Chesterton’s fence,” in a discussion, have the other person nod in understanding, and move on with the topic of conversation without derailing into a complex side-explanation. I’ve found myself wishing more people had this vocabulary, it would make debates so much easier.

I really enjoyed the film screenings in class. I liked when you would pause the film to comment on it, and I wish you’d done that more often. I found the insights very helpful, and there were a lot of moments relevant to the class that I would’ve missed without them. I’m sure there were even more moments that I did miss.

The comments were especially helpful for the film Gandhi. I’d watched the movie before, but never really understood it. The story of India’s freedom struggle and Gandhi’s philosophy of non-violence did not make much sense to me when I studied about it in eighth grade. I couldn’t see how ahimsa affected the British, or what caused them to finally leave India in 1947. Game Theory is a very powerful lens of looking at what was really going on; and making sense of Gandhi’s moves from this new perspective cast the freedom struggle in an entirely new light. It helped me really appreciate how powerful Gandhi’s philosophy was, and how its simplicity brought great generals to their knees. There was a lot of nuance to each situation, and all of it would have gone over my head without the explanation. I do wish we could have watched the entire film in class; there is a lot more to take away from it than I could ever pick up by myself.

I loved how the explanation for the Stag Hunt began with a demonstration. (Too bad I missed the e-mail. I’d have loved to see the looks on my friends’ faces if I came to college with ribbons in my hair.) Learning about the Stag Hunt illuminated the limitations of the Prisoner’s Dilemma. The Stag Hunt is clearly better representative of human behavior than the Prisoner’s Dilemma is. But I wonder if there’s a game that’s an even better representation of human behavior than the Stag Hunt. I can see that certain games work well in certain contexts, and not necessarily in others; I don’t think there’s any game that can be applied to every context. (Please let me know if there is one.)

I'd been waiting on the Stag Hunt, and the fast-paced, lively explanation did not disappoint. Once more, I wish we could've spent a little longer on it; it had a lot of interesting implications that I wanted to discuss in class. I have downloaded Brian Skyrms' book, and will definitely be reading it.

I don't understand Kandinsky's art. I appreciate his efforts to explain his work, and his explanations made sense to me. However, his work itself baffled me. I can't reconcile his writing with his painting.

I really liked how the class linked a geometrical concept like Voronoi tessellations to medical concepts like herd immunity and epidemiology. I was also very fascinated by the story of the 1854 Broad Street Cholera Outbreak. I loved the role data collection and analysis played in deducing the cause of the cholera outbreak; the Broad Street pump.

The amount of deduction work that goes into the medical field has always captivated me, and I love listening to my mother, who is a doctor, talk about her deductions of complex illnesses in patients from picking up patterns in their seemingly unrelated history of symptoms. It is very closely linked to the design of experiments: a hypothesis is formed based on the patient's symptoms, and the patient is run through relevant tests and scans (the experiment) to gather the data to confirm or reject the hypothesis. However, the experiments that can be conducted, and the time frame for data collection are very limited, making pattern recognition the most important aspect of these deductions.

Identifying the exceptions to a pattern is the most crucial aspect of confirming the hypothesis; this is a convincing statement, but I'm not sure I've fully grasped its implications. I can definitely see the value of identifying the exceptions in the case of the 1854 Broad Street Cholera Outbreak, but how far can this statement be applied in the general sense? Are there any other case studies that might help me develop a better understanding of this?

My mother also says that patient case studies are more riveting than any detective story, and I can see how that is so. The story of the 1854 Cholera Outbreak gave me the smallest taste of it, and I think I will ask her to e-mail some of her favorite medical case studies to me. (She still sometimes laments over the fact that I chose to not become a doctor.)

I do wish we could've worked on some creative, if not necessarily "artistic" outcomes in the class. I know some of my classmates enjoyed making the GPS art and the GeoGebra portrait, but I couldn't really see the purpose. It was fun to try out once, but I don't think it is a medium I will continue working with.

I think coding is fun. I don't actually know much about it, but I enjoy playing around with code if I get the chance; the way I did with the XML code for the GPS art. R frustrated me a little because I did not have a knowledge of its syntax, so it was difficult to experiment with. I couldn't make use of commands that had not been explained in class. What makes HTML and XML relatively easy to work with is how intuitive the syntax is. Once a few tags are understood, a lot more can be guessed. For example, `<trkseg>` and `<trkpt>` are simple tags that I could make use of with the most basic knowledge of how the tags work in XML. A lot of commands in R had specific requirements that made it much harder to determine why a particular chunk of code was not running. Perhaps this is because R is a much harder programming language than either HTML or XML, but I do think I would've benefitted from a basic explanation of the syntax of some commands in R.

It was very frustrating when RStudio stopped working for me; thank you for personally taking the time out after every class to help me fix it, and to help me catch up to what I'd missed while I was lagging. You were very patient. I know it took up a lot of your time, and even set the class back sometimes. Also, thank you for letting me work on your laptop when mine wasn't working, so I would not lag behind the class any more.

Hamlet is my favorite Shakespeare play and I was very excited to discuss it in class. Sitting through the reading was a little strange for me as I have most of the soliloquy almost memorized. At first, I was reluctant to accept the idea that Hamlet was conducting an experiment to gather data, as it seemed like too mechanical of a way to look at my favorite story. But while writing the reflection for that day, I realized the merits of such an interpretation. It also backed up my own interpretation of his character, so I may be biased in my acceptance of the idea; but I thought the insight added an interesting layer to the way I view the play. Maybe I should give the play another read, to solidify this new perspective. I'm not sure, though.

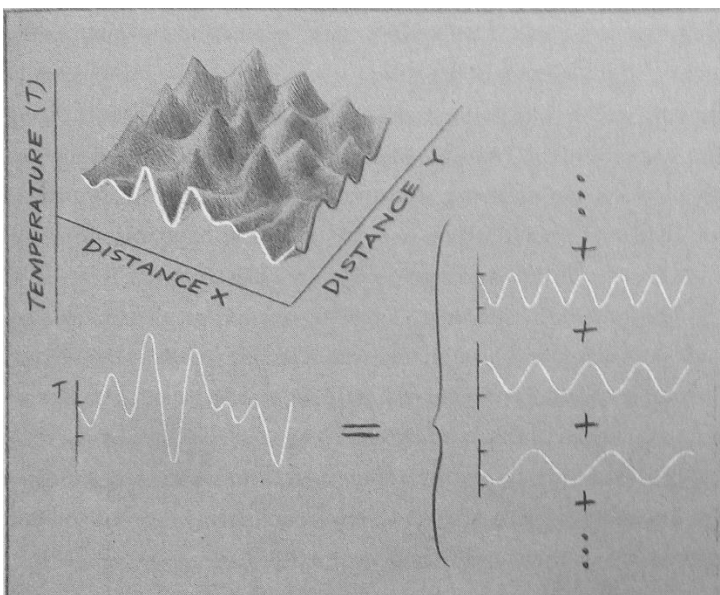
I really enjoyed conducting our own experiment in class; the discussion for the parameters of the experiment was lively, and it was fun to hear everyone's input. It was interesting to see my views change as people brought insights and information from their own experiences to the table. I know everyone was not satisfied with the final categorization, I wasn't either, but I think we all acknowledged a certain level of bias in our classification brought in by our limited understanding of the courses themselves. I thought it was really cool how the class voted on each decision. This kind of openness and freedom was perhaps one of my favorite aspects of this class.

I really enjoyed the pace of the class. However, going through my notes again made me realize that they aren't very comprehensive. There are a lot of concepts that are missed out or poorly explained in my notes; and I think that's a shame, because it will make it a lot more difficult to revisit these concepts in the future.

It was difficult to keep up my note taking with the speed with which the class was moving. You would move on to explaining the next concept while I was still trying to write down the previous concept; this led to my notes being filled with a lot of half-formed sentences and random phrases with no context, that are becoming harder to decipher as more time passes since my having written them. I can't ask you to talk slower, but I do think that it would be helpful to your students if you pause for a few seconds before moving on to each new topic; even a few moments between topics will help the ideas to soak in, and allow note-takers to catch up.

I really liked math and physics in school, and was delighted to be able to revisit them in a different context here. Mathematical models for physical concepts have always excited me. (I really enjoyed using calculus to derive important formulas in school. It has always fascinated me how these equations on paper have physical implications in the real world.) You explained the concepts really well, and it wasn't difficult to keep up with the class at all. However, the pace was still fast enough that it only gave enough time to understand the concept and move on. At a lot of points, I got the impression that there was more to what had just been said, and that it had deeper implications I would realize if I thought about it. But the class moved too fast for me to be able to dwell on anything and think.

I was a little disappointed we couldn't go into too much depth in some aspects, but I'm glad I was able to gain a good conceptual understanding of a few things. For example, the concept of merging mechanical waves was very unclear to me. I knew how wave equations worked, and how to mathematically add two or more waves, but I wasn't able to develop a strong visual understanding until I actually tried to make an acoustic smoothie. I'm glad I developed this visual understanding, because the following diagram from a book I'm reading on a cosmological theory wouldn't have made sense to me without it:



After all the time we spent working on R, SuperCollider was much easier to pick up. It was fun to play around with, even though the sounds we made on it sounded awful at first. I wish we'd been able to learn enough to be able to create our own music on it in class, but I know we didn't have the time for that.

There were a lot of books you brought to class that really fascinated me, and it's a little disappointing that I could not find the time to read them.

The assignments we had were very interesting, and I really enjoyed being able to dwell on them when I could, and develop a stronger understanding of the concepts. The reflections helped revisit the ideas touched upon in class, and gave me a place to follow certain lines of thought, and analyze them in more depth. I gained interesting insights from being able to actively engage with the ideas I'd get, and I feel like writing the reflections was a learning experience on its own. Knowing that they would be read each day also motivated me to write and submit them on time. (The course was exhausting, and there were days I'd fall asleep early without working on the reflection; but I'd somehow wake up at 2:00 AM to write and submit my reflection before going back to sleep.)

The class was very intellectually stimulating, and I learned a lot from it. There are a lot of topics I plan to read more about. I want to be a writer, (specifically, a graphic novelist,) and I feel like there's a lot I can take away from this class and apply to my own work. Historical fiction really fascinates me, and the HistData package on R will be a very valuable supplement to my own research. (Now I just need to figure out how to find the data I need on it.) I'm also interested in the prospect of applying Game Theory to a short fiction piece; perhaps something longer if I'm feeling more ambitious. I really enjoyed the last five weeks. You were an incredible teacher, thank you for making this unit amazing.