College Writing Seminar (INTD100): Week 2 Notes

Jordan Hanson

September 20, 2020

Whittier College Department of Physics and Astronomy

Summary

Summary

Week 2: *Concise writing II:* In Week 2, we will focus on reading a piece of science writing, and creating your *own* writing that tailors the story to a particular audience.

- Exercises: work in teams to produce a piece of science writing intended for a broad audience that weaves together information from a variety of sources: (a) a TED talk (b) a scientific journal article (c) and resources like Wikipedia and Google Scholar
- Homework: writing a post designed for social media about a piece of science that grabs the attention of a wide audience, and attempts to convince that audience that the science is interesting
- Exploration topic: Black hole observations

Group Project

Group Project: Collaborative Science Writing

Instructions: Systematically random groups (next slide)

1. Choose one of the following four topics on the following slides
2. Choose a *corresponding author* who will create a Google Document and share it with the others
3. Select a number of sources pertaining to the topic
   - TED talks
   - Scientific journals from `arXiv.org` and `scholar.google.com`
   - Sources located on Wikipedia
4. Create a map or outline with Coggle.it or other tool that summarizes recent discoveries
5. Write a 1 page, single-spaced, 12 point font summary ($\approx 800 - 1000$ words)'
6. Bonus points: including a separate bibliography, correctly formatted

Group Project: Collaborative Science Writing

1. Grace Cooper ... Group A
2. Zack Duhala ... Group B
3. Juan Estrada ... Group C
4. Jusraunaq Farmahan ... Group D
5. Mateo Gomez ... Group A
6. Elise Hansen ... Group B
7. Wyatt Killien ... Group C
8. Kyle Miller ... Group D
1. Eliot Moser ... Group A
2. Rudy Reyes ... Group B
3. Nick Reynolds ... Group C
4. Paulina Valdez ... Group D
5. Andrea Wainwright ... Group A
6. Natasha Waldorf ... Group B
7. Emma Walston ... Group C

Group Project: Collaborative Science Writing

Science Topics

1. Event Horizon Telescope and the First Picture of a Black Hole
   - What is long-baseline interferometry?
   - What are the properties of the black hole observed?
2. LIGO, Virgo and the First Neutron Star - Black Hole Merger
   - What is a neutron star?
   - What is a black hole neutron stare merger?
3. IceCube Neutrino Observatory
   - What is a neutrino?
   - What is IceCube Neutrino Observatory and where is it located?
   - What major discoveries have they made so far?
4. Anything related to COVID-19 and the pandemic
   - How is the rate of spread quantified?
   - How fatal is the virus, and how does this vary for people?

Group Project: Collaborative Science Writing

Source classes

1. TED talks: surprisingly useful at the start: `https://www.ted.com/talks/katie_bouman_how_to_take_a_picture_of_a_black_hole?utm_campaign=tedspread&utm_medium=referral&utm_source=tedcomshare`
2. Wikipedia has more sources: Event Horizon Telescope `https://en.wikipedia.org/wiki/Event_Horizon_Telescope`, references section leads you to `arXiv.org` with the exact set of references to journals
3. `arXiv.org` and `scholar.google.com`, as previously discussed, leads to journals
4. NewScientist, Space.com, Scientific American, etc.

Group Project: Collaborative Science Writing

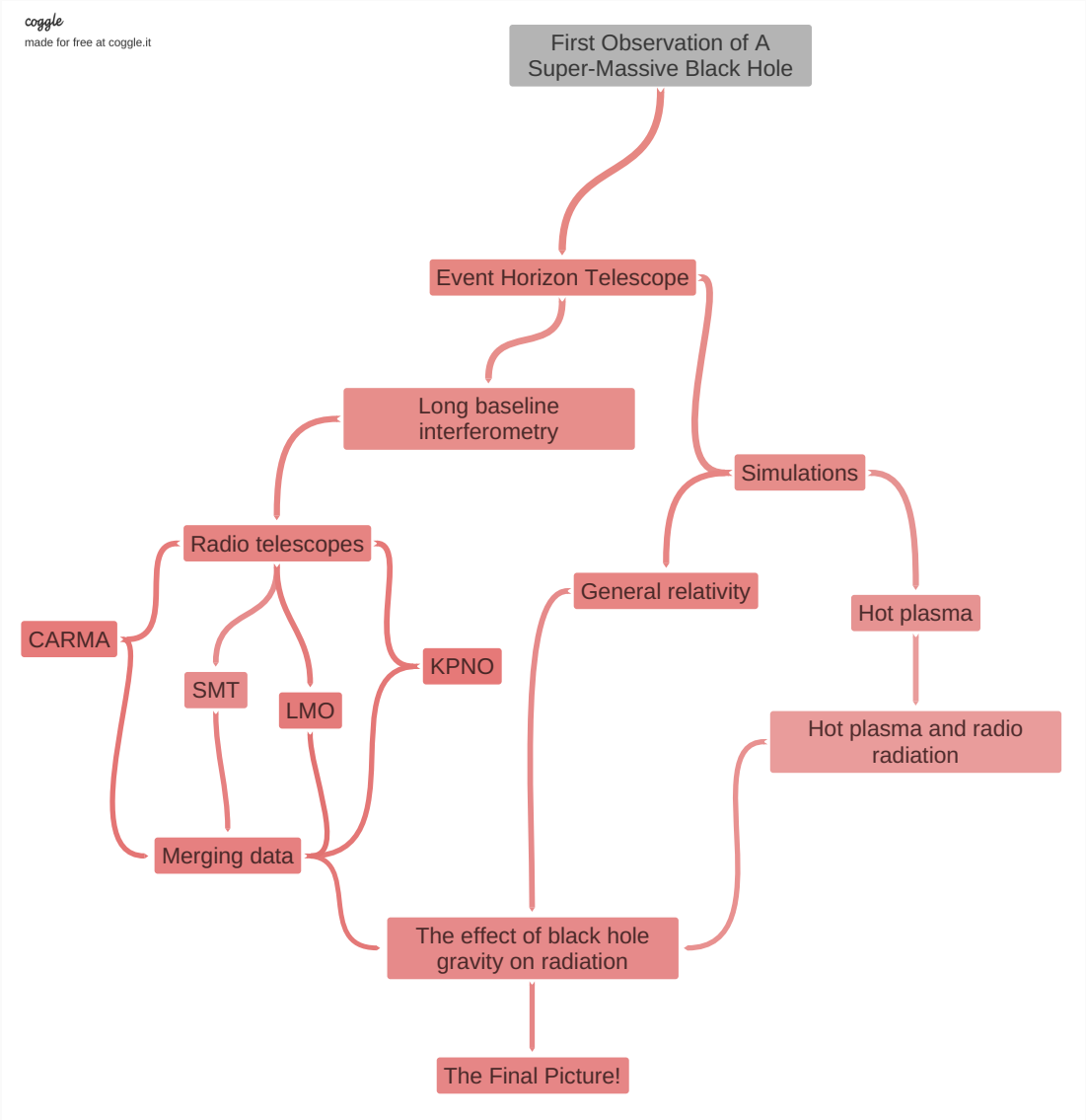

Figure 1: Black hole observations and Event Horizon Telescope.

Group Project: Collaborative Science Writing

Sources to Outline: Which details to cut?

1. Kill your darlings
2. Hierarchy of detail: which *level* of detail to cut?
3. Using analogies to replace finest details, equations
4. Cite or quote experts where appropriate

Group Project: Collaborative Science Writing

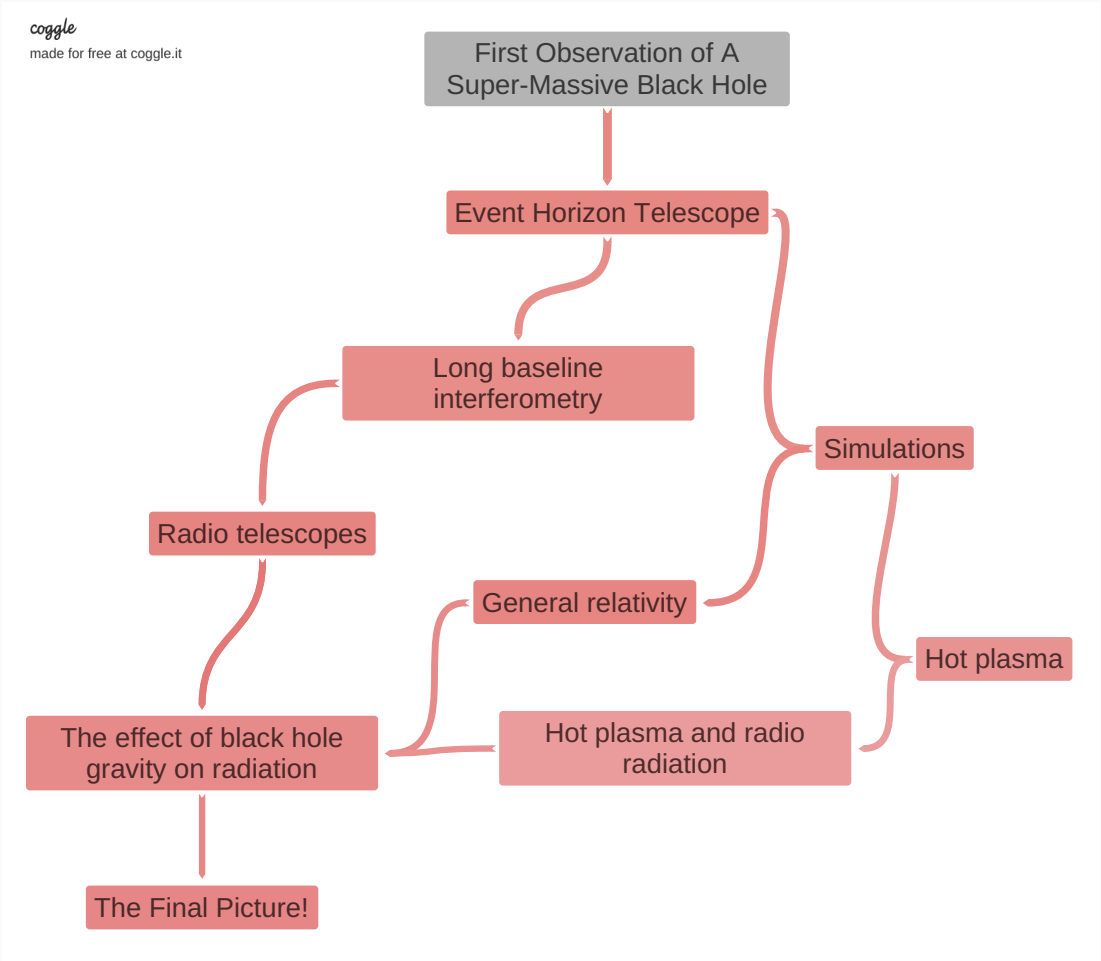

Figure 2: Black hole observations and Event Horizon Telescope, take 2.

Conclusion

Summary

Week 2: *Concise writing II:* In Week 2, we will focus on reading a piece of science writing, and creating your *own* writing that tailors the story to a particular audience.

- Exercises: work in teams to produce a piece of science writing intended for a broad audience that weaves together information from a variety of sources: (a) a TED talk (b) a scientific journal article (c) and resources like Wikipedia and Google Scholar
- Homework: writing a post designed for social media about a piece of science that grabs the attention of a wide audience, and attempts to convince that audience that the science is interesting
- Exploration topic: Black hole observations

Bibliography