

Final paper

Introduction to Geospatial Technology **COURSE T GIS 502** URBAN STUDIES

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Class Time: PNK 131 Tuesday 5:20-9:20 pm

Office hours by appointment

Final Paper 100 points & Final Presentation 50 points

Due December 11, 2014

For this final paper, please choose one geospatial technology and write a brief report. Maximum 2,000 words. Please select a san serif 12 point font (preferably Arial and Helvetica)

In your report please answer the following questions in paragraph form. Organize your paper in the following sections. However, if you think the flow of the paper may be improved by changing the order or these topics, it is fine to do so. You may have additional subsections if you choose, and they are relevant to your topic.

Introduction (10 points total)

1. What is the technology? (2 pts)
2. What does it do? (2 pts)
3. How is it/can it be used for geospatial endeavors? (2 pts)
4. Why this technology is interesting or exciting or worth investigating. (4 pts)

How it works (20 points total – replace it with name of your technology)

1. How does the technology work? (5 pts)
2. How are the actors involved? (5 pts)
3. Scale at which this technology captures data? (5 pts)
4. Costs? (5 pts)

Applications (20 points total)

1. Who created it and why did they create it? (5 pts)
2. Reference at least two application of this technology for academic research (10 pts)
3. Provide an example of when this technology is used in industry or government. (5pts)

Strengths and weaknesses (20 points total)

1. Present strengths and an example appropriate applications of this technology (10 pts)
2. Weaknesses, when is it not a good idea to apply this technology to a specific project? (10 pts)

Conclusion (Very briefly Summarize your paper, one or two sentences for each point) (10 points)

1. Why this technology is exciting (2 pts)
2. How its been used in the past (2 pts)
3. How it could be exciting to use in the future (2 pts)
4. Summarize what you just said in this paper (4 pts)

20 points for grammar, spelling, flow of your writing. Make sure you read your paper carefully to make sure it reads well and is easy to follow and covers all of the topics outlined above. You will loose points if something is written in an unclear or difficult to understand manner.

Please submit this assignment as a word document .doc or .docx into the Canvas Dropbox. Please name the file YOURLASTNAME_FinalPaper.doc

List of Geospatial Technologies to choose from You will be given a number in class that was randomly generated in Excel for the order in which you may select a topic. (you may pick another technology but you must get it approved by the instructor first):

1. Interferometric synthetic aperture radar (InSAR)
2. synthetic aperture radar (SAR)
3. Specific Handheld Lidar
4. Specific lidar sensor
5. Modeling software (check with Britta)
6. Specific Satellite
7. Specific mapping platform (check with Britta)
8. Drone – pick one specific make
9. Specific camera to be attached to a drone – (speak to nadir)
10. DGPS
11. ArcServer
12. One of the databases used for geo storage that was discussed in lecture in Week 7
13. City Engine
14. Xbox (kinect) used for geospatial learning or urban or environmental planning/studies
/communication
15. Wii- used for geospatial learning or urban or environmental planning/studies/communication
16. Second Life - used for geospatial learning or urban or environmental planning/studies
/communication
17. Eye trackers (discuss with Britta)
18. fMRI (discuss with Britta)