

## **1. Ask a Question**

Does adding a geotag on social media affect whether or not the GPS metadata on a picture gets scrubbed?

## **2. Background Research**

For this experiment, we will be taking a look at two popular social media sites: Facebook and Instagram. From these media sharing sites, we will be using the exiftool command installed on PuTTY. The reason for using exiftool on PuTTY is because it allows for a clear interpretation of data that isn't jumbled up into Hex, Ascii characters, or decimal numbers.

## **3. Construct a Hypothesis**

I think that adding a geotag to your picture when uploaded to such social networking sites will either leave the GPS metadata as is, or edit that metadata to reflect the geotag said user tagged themselves at.

## **4. Test with an Experiment**

1. I feel like I'm in middle school when I say this, but gather your materials such as: a camera, a computer with PuTTY and Cyberduck installed, social media accounts in check.
2. Go out and take two different pictures
3. Share one picture with a Geotag on both Instagram and Facebook. This will be Image 1.
4. Share the second picture without a geotag on both Instagram and Facebook. This will be Image 2.
5. Log into PuTTY and Cyberduck.
6. Create a directory (folder) in Cyberduck titled images.
7. Upload both original pictures to the folder in Cyberduck with the name image1orig and image2orig.
8. Go to Facebook and save both photos with the names image1a and image2a; upload them to cyberduck.
9. Go to Instagram and save both photos with the names image1b and image2b; upload them to cyberduck.
10. Go over to PuTTY, go to the directory in which you saved these files, and type `exiftool image1orig.jpg` (or whatever extension it might be). This photo should have the coordinates as it is our control group.

11. Now type exiftool image1a.jpg (or whatever extension it might be). Record whether or not the coordinates popped up and if Facebook modified any of the metadata.
12. Now type exiftool image1b.jpg (or whatever extension it might be). Record whether or not the coordinates popped up and if Instagram modified any of the metadata.
13. Repeat steps 10-12 for image 2 and record any observations.
14. Write the results of your experiment.

## **5. Analyze and Draw Conclusions**

To conclude, it does not matter if you add a geotag on either Facebook or Instagram, both services will scrub any GPS metadata along with anything else that can be used to track a person. Although the results did not coincide with my own hypothesis, I now know that both social media outlets value and respect their user's privacy, regardless if the user desires to add a geotag. One thing I could've done differently was maybe try different social media outlets such as Myspace.com, Tumblr.com, or Twitter.com.