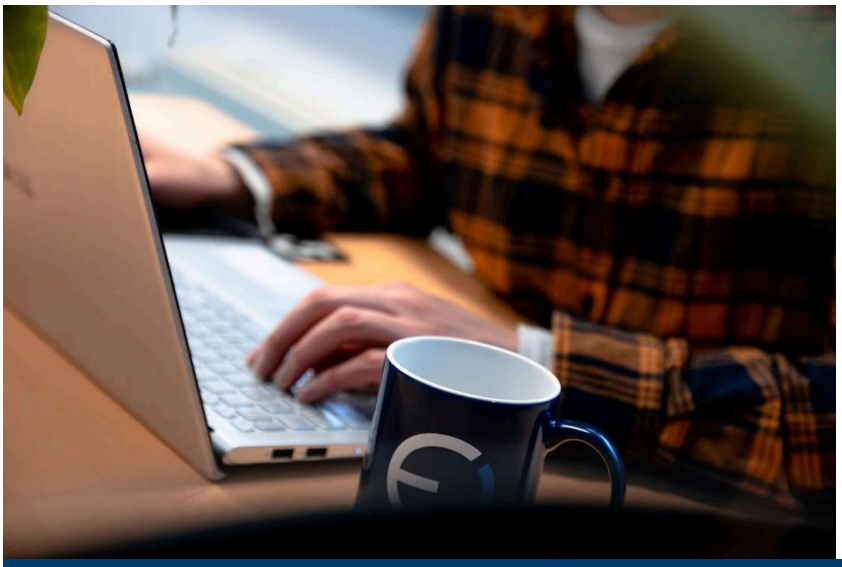
The Use of Geospatial Technologies Across Industries



Why should you care about GIS and what might you do with it? This is our topic of discussion this week. Try to take a moment and look at what is being done. Then, try to imagine where GIS is headed. If you want to start browsing now, go here: **https://www.esri.com/en-us/industries/index (https://www.esri.com/en-us/industries/index)** and navigate to industries that interest you and find three or four links to articles or media that showcase how the technology is being used and/or where it is headed. This is what you'll need for your discussion post. If you'd like to know more about your Professor's take on GIS over the last two decades & upcoming events, read on, or you can click next to get started with the next assignment.

Around the time the dot-com bubble was bursting, Professor Bjerke went to a computer lab with her physical geography class and was handed a few sheets of paper copied from a Geographic Information Systems (GIS) manual. Back then the software was still relatively new, but exploding in various industries.

The software was largely self-taught. We were handed a manual or pages of a tutorial and told to follow the instructions. When the tutorials didn't work as expected, we were told to start over, or get curious and spend a few days and nights (or in some cases weeks and months) really learning all the ins and outs of how the software worked. That is how the real learning happened because we can only get so much from tutorials; we learn more when we are asking the questions.

At that time, I think it was easier to imagine all the possibilities for the software because it was before most of us could actually make impressive products. The software and freely available data were limited. **Data** was expensive to produce and high resolution datasets were rare. Often, the maps, satellite imagery, and other forms of data were either not available to the public at a fine enough resolution to produce meaningful results, or we were expected to pay a price to buy the data from companies, if it was available. So, there was too little, it was not very good, and the good stuff was expensive. Once you had data layers, they probably didn't match up and (as we've learned this week) GIS users have to know which projections are being used and where the distortion is in order to align the data. But this is changing - increasingly this task is something we can let computers do for us! Hooray!

Almost two decades later, the entire situation is totally different. Here is an **index of industries (https://www.esri.com/en-us/industries/index)** using GIS that is maintained by the market leader of GIS software, **ESRI (https://www.esri.com/)** . Today, **https://www.arcgis.com/ (https://www.arcgis.com/)** is arguably more powerful than the software I was using in the early 21st century, and you can start using it online by accessing the content for free through SBVC. ArcGIS.com can integrate lots of free data layers that surpass what was available all those years ago. Big data (for free) is here, many industries are applying artificial intelligence in ways that will help keep us safe (more on that later), and now it is up to us to dream up the projects and find the time to learn and create. **Want free, open source software** that can travel with you after you finish your education? Get to know **QGIS (https://www.qgis.org/en/site/)** : open source GIS software that is for everyone.