This is such a good question, so pardon me while I drivel on a bit before actually answering the question.

It is common knowledge that the library at Alexandria was burned to the ground, destroying untold amounts of accumulated human knowledge. I often wonder what knowledge civilization had that was wiped out in that fire (astronomy, structural engineering for pyramids and obelisks, complicated mathematics done on baboon leg bones that mimics binary, etc.).

Once again, we have amassed immense knowledge from around the world through the internet. This time, I hope, the internet will prove to be more robust than the library at Alexandria was. And while I think that not all information can be completely wiped out, I also believe that \*functionally\* it can seem so to some peoples. So this is an immensely important topic.

To answer the question, I found a very comprehensive article about the internet backbone (Lee, 2014). And summarize points I found relevant here:

Conceptually, the internet backbone is the connectivity between computer networks that allows high-speed communication and information sharing across the globe. More tangibly, it is the physical cables and cell towers that make all of this connectivity possible.

At least in terms of the United States, the backbone might be considered the various ISP networks which span across the country. When you think globally though, the backbone might be the cables running across oceans and borders of countries, connecting a country to the internet at large.

These tangible aspects of the internet backbone can be damaged and therefore prone to attacks. However, the United States has “dozens of links to the outside world, making a coordinated shutdown of the US internet almost impossible” (Lee, 2014). Unfortunately, physical backbone disruption could affect countries with fewer links out (as was the case when India and Egypt lost connectivity in 2008), or with several links in the hands of the few (as was the case when the Egyptian government cut off outside internets access during protests in 2011).

For countries not well linked to the greater internet, I would think that cyber attacks would be aimed at taking out the links connecting them to other countries. For well connected countries, like the U.S., I am not sure there is a way to completely disrupt the internet backbone. And frankly, I think this is why cyber attacks in the US are against individual companies, like getting user data from some financial institution. Nevertheless, the cyber security of other countries is important for the US because we have a global economy and if one part of the world experiences a loss, soon we all will.

References

# Lee, T. B. (June 2, 2014). 40 maps that explain the internet. Vox. Retrieved from https:

# //[www.vox.com/a/internet-maps](http://www.vox.com/a/internet-maps)