

Introduction



When students take classes at Northeastern, it is easy to forget how much technology is needed to make everything run smoothly. In the morning, a student leaves their dorm and heads to one of the dining halls to get some breakfast. There they use their student ID to scan into the dining hall, which subtracts one meal from their weekly allotment. While in the dining hall, the student connects to the campus WiFi network to check their Northeastern email account through

Microsoft Outlook and to check their student employment status through MyNortheastern. The student leaves the dining hall and rushes to the library to print a report for their next class. Unfortunately, their laptop has run out of battery and they forgot their charger in their dorm. Luckily, they are able to use one of the many computers in the library and quickly print before racing off to class.

In today's fast-paced, technology-saturated world, people expect tasks such as printing, checking email, accessing online portals, and connecting to WiFi to work without a hitch. It's easy to get frustrated when something such as WiFi doesn't work as expected, and it's even easier to forget how complicated and challenging it is to create and operate systems like these. Those who work to design and operate these systems are known as **Information Technology (IT) professionals**. *Information Technology is the discipline that is concerned with managing and processing information within a large company or organization and designing the computer infrastructure to do so.* Examples of such infrastructure include databases, wireless networks, operating systems, and servers.

This week's newsletter will explore this important discipline by delving into topics such as IT at Northeastern University and cybersecurity.

Northeastern Connections

Northeastern University has its own Information Technology Services (ITS) department that works to keep the university's technology infrastructure running smoothly and securely. They also work one-on-one with students and faculty to troubleshoot and resolve any computer issues they may have.

With the COVID-19 pandemic shutting down in-person learning, the roles of IT professionals at Northeastern and other universities like it have never been more important. In order to facilitate the online learning experience of thousands of students and maintain research operations across the campus, the school's technology resources and the IT staff's ingenuity is being tested like never before. New university-wide systems were implemented in record time to finish off the Spring 2020 semester remotely and to bring students back to campus to participate in the new hybrid [NUFlex](#) program in the fall.

In addition to employing IT professionals, Northeastern offers a 2-year Bachelor of Science in Information Technology degree through the College of Professional Studies. This is a great opportunity for those wanting to break into an exciting career. The median annual salary for those in the IT industry was \$86,320 in 2018 and there is projected to be a 12% increase in IT positions from 2014 to 2024.

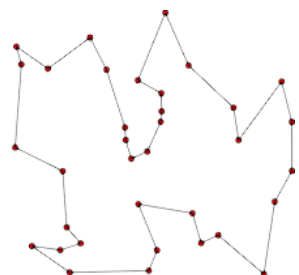
Do Now

IT "ad lib" Game

Instructions: With a partner, complete the following "ad lib" story (inspired by the popular game "Mad Libs"). Without showing the partner the story below, get them to fill in the highlighted words with a word that matches the prompt in the brackets. For example, one partner would ask the second to give any name to fill in the first blank. Next they would ask the partner to say any number to fill in the second blank, and so on. Remember: the sillier the answers, the funnier the story is in the end!

Story:

On Monday Morning, **[name]** woke up to begin his first week as an IT Professional. He drove to work and arrived **[number]** minutes late to his new job at **[noun]**, INC. His first task was to troubleshoot a **[adjective]** network that was giving the company some issues. He thought this first project was



positively [adjective]! After thinking over the problem for a few minutes, he realized that all he had to do to fix the problem was [verb]! "[exclamation]!" he said out loud in excitement. His bosses were very pleased with his work and thought he did it very [adverb]! That night he went home and told his partner all about his first day. "It was [adjective]!" He said. I cannot wait to go back tomorrow! He went [adverb] got up the next morning and drove his [adjective] car to work hoping his second day would be as [adjective] as his first!

Activity

NOVA Cybersecurity Lab!

A crucial part of the IT profession is cyber security. IT professionals work tirelessly to make sure that technology works correctly, but they also must make sure that is safe and secure. Watch [this video](#) about cyber security and then complete the activity below.

NOVA has created an interactive cyber security lab that addresses subjects like learning to keep your digital life safe and basic coding. Complete the following free lab and explore the world of cyber security!

Materials Needed:

- Computer and Internet Connection

Steps:

- Visit [this link](#) and click the “launch” button
- Follow the instructions and complete the lab (Log in as a guest if you do not want to create an account)

Discussion Questions:

- What was the most interesting thing you learned about cyber security and why?
- How did this activity change your views on browsing the web? Did it inspire you to change any of your own habits? If so, what activities did you once do online that you might now consider to be unsafe?
- What steps will you take in the future to make yourself safer online?
- If you ran a company, what steps would you take to ensure that it is safe from online attackers?



Share Your Results

We'd love to know how the activity and/or the "do now" turned out! What worked and what didn't work? Please share with us something you learned and/or send us pictures! Email us at stem@northeastern.edu.

Related links/Extensions

- [What is Information Technology? A beginner's guide to the world of IT.](#)
- [What is the Internet of Things \(IOT\) and how do we secure it?](#)
- [The Hill: Lawmakers introduce bill designating \\$28 billion to secure state and local IT systems \(COVID19\)](#)
- [NOVA: Cyber Codes](#)
- [NOVA: A Cyber Privacy Parable](#)
- [NOVA: The Secret Life of Hackers](#)
- [NOVA: Car-Hacking](#)