

THE NetworkGuy

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Progress is not guaranteed: *Why We Can't Take It for Granted*

It's easy to think that progress just keeps rolling forward on its own, especially with all the new technology we see today. But the truth is, it doesn't. Advancement isn't the universe's default setting. Without steady effort, investment, and attention, even our biggest achievements can stall or slip backward. Entropy — that natural pull toward disorder — wins unless we keep pushing against it.

Look at the U.S. space program. In 1969, NASA landed astronauts on the Moon in one of the world's greatest accomplishments. But after the Space Shuttle retired in 2011, the United States lost its own ability to send astronauts into orbit from American soil. For nearly a decade, NASA had to rely on Russian rockets to reach the International Space Station. It was a clear reminder of how quickly momentum can fade when priorities shift and creativity/innovation is stifled.

Back to Earth, think about the Romans and their impressive aqueduct systems. Those engineering marvels delivered fresh water to cities, supporting

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The Network Guy Quiz Challenge

PenTeleData is giving one lucky winner a \$150 Amazon Gift Card. Just visit www.ptd.net/quiz-challenge by **July 31, 2026** to answer the contest question. We will select a winner at random from all correct entries. **Good Luck!**

Click the **Quiz Challenge** link and choose which of the choices is **NOT** true about Total Internal Reflection.



Learn from The Network Guy

I want to use my printer but am getting the message "Network printer not found." What basic troubleshooting steps can I try?

The Network Guy:

It sounds like your network printer is on, but your computer can't see it to send print jobs. You can check the network connection, ensure the printer is on the same Wi-Fi, reinstall printer drivers, and if needed, manually add the printer via IP address.

Tech Myth Buster

MYTH:

Defragmenting Hard Drives Will Improve Speed.

FACT:

It's a myth that regularly defragmenting hard drives improves device speed.

In truth, modern solid-state drives don't benefit from defragmentation, in fact, it may even reduce their lifespan. Instead, prioritize optimizing storage usage and managing unnecessary files to ensure Solid-State Drive (SSD) longevity and performance.



Things That Make You Go Hmmm...

AI is not a new technology. While AI is currently experiencing rapid development, its foundational concepts and applications have existed for decades. The term “artificial intelligence” was coined in the 1950s by computer scientist John McCarthy, and many modern AI algorithms and methods have been around for decades.

Early computer scientists may not have been able to imagine how powerful AI has become today. From financial fraud protection to personalized shopping and autonomous vehicle sensors, AI is already integrated into many aspects of our everyday lives.

Computer scientist Arthur Samuel developed a Checkers-playing program in 1959, which for the first time demonstrated a machine’s ability to learn and improve its performance without being explicitly programmed.

AI is most likely to automate specific tasks within a role, allowing workers to redirect their time towards responsibilities that AI cannot automate.

While predictive capabilities are improving fast, human intervention and judgment remain essential in high-stakes contexts where the plausible or false sense of certainty of AI could lead to real-world impacts.

In 1844, Americans were stunned that messages could travel instantly across long distances. Samuel Morse sent the famous message:

“What hath God wrought,” from Washington, D.C. to Baltimore, officially launching the age of instant long-distance communication in America.

PenTeleData is Proud to Serve Easton, PA

Easton, PA is well-known for their role in the birth of our nation, but it’s also currently a vibrant community that includes four distinct neighborhoods: College Hill, Downtown, South Side, and West Ward. Whether someone is interested in diversity and an up-and-coming vibe, a quiet and stately area, a five-minute walk to 30+ restaurants or an affordable area for the working class, Easton meets that expectation.

The “Thousand Acre Tract” of land at the confluence of the Delaware and Lehigh Rivers was selected and surveyed in 1736, by Thomas Penn and Benjamin Eastburn. The new town was to be called “Easton” in the new county of “Northampton”, after Thomas Penn’s wife Juliana Fermor’s home estate of Easton-Neston, Northamptonshire, England.

In 1736, William Penn’s son Thomas purchased the land originally known by the Native Americans as Lechanwitauk, or “the Place at the Forks.” He and others soon established the settlement of Easton. In short time, the town became the seat of Northampton County. Each of these namesakes were inspired by Penn’s wife, whose family hailed from Easton-Neston, Northamptonshire, England.

Easton’s Centre Square has played a pivotal role in the city’s heritage and urban development. The county’s original courthouse once stood in its center and the oldest open-air market in America continues to thrive there. One of the most important events in Easton’s history occurred in the square on July 8, 1776, when the city was one of only three in the colonies to hold a public reading of the newly penned Declaration of Independence. Eastonians still celebrate this historical milestone today with great pride.

Throughout the 1800s, Easton thrived with industrial innovation. From textile mills to slate quarries, from the advent of canal transportation to advanced networks of railroads, Easton and surrounding communities were examples of modern life on the horizon. Many continued to settle in Easton and the Lehigh Valley in search of a better life, contributing to the rich cultural vibrancy the city is still known for today.

(Source: <https://pa-easton.civicplus.com/354/History>)

Progress is not guaranteed: (cont.)

baths, sanitation, and daily life for millions. When the Western Roman Empire declined, many aqueducts fell into disrepair because maintenance stopped and central organization weakened. Cities around Europe and elsewhere went back to using wells and rivers for thousands of years, and the quality of life suffered despite our knowledge from Rome.

The same principle applies right now. Technology, infrastructure, and complex systems all need ongoing commitment to stay strong. Here in America, that’s especially important for our hospitals, schools, universities, banks, manufacturers, data centers, and the growing number of businesses using AI.

That’s exactly why we do what we do. We provide dedicated fiber connections built for reliability, security, high capacity, and low latency across the Lehigh Valley and Pennsylvania, New York and New Jersey. These connections support real-time data

exchange for healthcare providers, online learning for schools and universities, secure transactions for banks and financial groups, and the heavy computing demands of modern AI operations.

We also deliver straightforward IT services including remote monitoring & management that features AI assist plus our secure business phone systems with call recording, and scalable call center solutions. Whether you’re running a local hospital, a university, a financial institution, or an AI-driven company, we help keep your connectivity and communications solid so you can focus on moving forward. Progress doesn’t happen by accident. It takes long-term thinking, continued investment, and reliable infrastructure.

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Network Fun Fact

Did you know your Internet data is zipping through hair-thin strands of glass thanks to a clever physics trick called Total Internal Reflection? Light enters the fiber's core made of ultra-pure glass and bounces perfectly off the inner walls, never escaping even when the cable bends around corners. It's like a laser-light game of pool where the ball never falls off the table. This 100% efficient bouncing lets signals travel hundreds of miles with barely any loss.

Progress is not guaranteed: (cont.)

Here in the Lehigh Valley and beyond, we have that practical, hardworking spirit — and we're proud to partner with local businesses that refuse to settle for less.

Business to business partnerships and private innovation are helping close gaps and push things ahead again. If your organization wants to keep building momentum without worrying about connectivity issues, we'd love to help.

What steps are you taking to stay ahead? Let's talk about how secure & reliable fiber, strong IT support, and dependable communication tools can help you keep growing — today and for the long run. The future belongs to those who keep showing up and doing the work. Reach out to us at 855.22FIBER(34237) — we're right here in Pennsylvania, NY, & NJ, ready to support what you're building!

Ten Fun Facts about America

1. The tallest mountain in the world is in Hawaii. If you measure from base to peak (including underwater), Mauna Kea rises about 33,500 feet from the ocean floor, beating Mount Everest's above-sea-level height. Only ~4,200 feet is visible above water.
2. The current American flag was designed as a high school project. In 1958, 17-year-old Robert G. Heft created the 50-star design for a school assignment. He got a B- initially, but his teacher promised an A if Congress adopted it—which they did.
3. The U.S. has the world's longest international land border. The 5,525-mile border with Canada is the longest on Earth. The country only shares land borders with Canada and Mexico, flanked by oceans.
4. The Library of Congress is the largest library in the world. It holds millions of books (in 470+ languages), plus films, photos, maps, comics, and more. It's a treasure trove of human knowledge.
5. Americans were the first (and so far, only) to walk on the Moon. Neil Armstrong's "giant leap" in 1969 via NASA remains one of humanity's greatest achievements, symbolizing innovation and exploration.
6. The Statue of Liberty is a gift from France.
7. Alaska is the easternmost, westernmost, and northernmost state. Thanks to the Aleutian Islands crossing the 180th meridian into the Eastern Hemisphere, Alaska claims multiple "most" titles geographically. It's also the only state that can be reached by walking to another country (Russia) in winter across the frozen Bering Strait between the Diomed Islands.
8. The Declaration of Independence was the first document to officially use "The United States of America." It marks the birth of the name we know today, signed on July 4, 1776.
9. The Liberty Bell has a spelling error. It reads "Pennsylvania" as "Pensylvania" (missing an 'n').
10. Virginia has produced more U.S. presidents than any other state. Eight presidents were born there (including George Washington, Thomas Jefferson, and James Madison), earning it the nickname "Mother of Presidents."

