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Arizona opinion: Data centers redefine the Copper State

Robert Oerzen Special to the Arizona Daily Star

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The following is the opinion and analysis of the writer:

It's been said that data is the new oil, but here in Arizona, data is the new copper.

The shift from earth to cloud began in earnest when Google broke ground on a \$600 million data center in Mesa on Sept. 6, 2023. As copper production dwindles, Arizona's next big resource isn't below the ground — it's in our servers.


Just as miners once took risks in the early days of the "Copper State," today's tech entrepreneurs are tapping into the rich potential of data. But instead of unearthing minerals, we're building the digital infrastructure transforming Arizona's landscape in ways copper never could



Robert Oerzen

to industrial machinery. Now, data centers have stepped in to take up that mantle, playing a similarly critical role in powering our digital lives.

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These modern-day “mines” store and process the data that fuels everything from streaming services to AI-driven innovations. With tech giants like Google, Microsoft and Meta setting up shop in Arizona, the state has quickly become a top destination for data centers and tech infrastructure.

But why Arizona? The reasons are clear: a business-friendly climate, plenty of land and access to renewable energy sources like solar power. Yet, as with any large-scale industry, this tech boom brings challenges.

Just as copper mining reshaped Arizona’s physical landscape, data centers are now reshaping the state’s most critical resources. While server farms may not leave visible scars on the land, their environmental impact is still significant. As these data centers multiply, they place increasing demands on Arizona’s strained resources — resources that are already vital to residents facing water restrictions and rising energy costs.

Cooling these massive data centers requires vast amounts of water, a particularly precious commodity in Arizona’s desert climate. With water scarcity a chronic issue in the state, the long-term sustainability of this industry is becoming a pressing concern.

But water isn't the only resource under strain. The thirst for energy is growing, too. As AI technology evolves and data centers expand, their appetite for electricity increases exponentially. What once required 50-acre facilities now demands sprawling 200-acre campuses with massive energy needs. Arizona's utilities are struggling to keep pace with this rapid growth, raising urgent questions about whether the state can support the power needs of its booming tech industry.

Despite these challenges, Arizona stands at the frontier of the digital age, much like it did during the copper boom. Just as copper fueled a century of industrial growth, data centers position Arizona as a critical player in the global digital economy.

Balancing the economic benefits of being a data hub with the environmental realities of operating in a desert will be crucial. It's a delicate balancing act, but one that could shape Arizona's role in the 21st-century economy.

In the end, Arizona's legacy of resource extraction isn't fading — it's evolving. The copper we once pulled from the earth powered an industrial revolution. The data we now store will power a digital one. Both industries have shaped Arizona, and both come with challenges that demand innovation, responsibility and forward-thinking.

As with any transformation, the stakes are high — but so are the rewards. If we get it right, Arizona's legacy will be copper, but its future will be written in data.

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Bobby Oerzen is a writer and entrepreneur from New York who has resided in Scottsdale since 2016.