SMPTE Spotlight:

Linda Tadic:

Archiving the Past While Creating a Sustainable Future

BY RUSSELL POOLE

CURRENT POSITION:
CEO, Digital Bedrock

PROFESSIONAL ORGANIZATIONS:
SMPTE, Association of Moving Image Archivists (AMIA)

DEGREES:
MLIS, MFA, BFA

New technologies pop up in the media landscape all the time, and many of them, from the metaverse to artificial intelligence (AI), need a tremendous amount of energy to function. This inevitably leads to higher greenhouse gas emissions, especially in the infancy of this tech. To reduce the harm of this new tech, industry leaders have stepped up to find ways to make it more efficient and spread awareness of this issue. Linda Tadic is at the forefront of these initiatives.

Tadic is the founder and CEO of Digital Bedrock, an off-cloud digital preservation service provider that preserves film and television assets, digital artworks held at museums, performance documentation, and any type of archival content. The organization strives for sustainability in its infrastructure and works with everyone, from creatives to the government. For her sustainability efforts both in and outside of Digital Bedrock, Tadic received the Lindner Tech Award in 2021.

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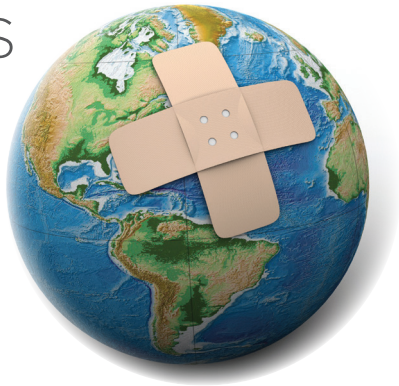

"I started giving talks on the environmental impacts of digital preservation in 2015," said Tadic. "I've led many talks and lectures about that topic and made it a pillar of Digital Bedrock's services and infrastructure. I also believe in paying it forward, which is why I've taught classes on preservation at both NYU and UCLA's preservation master's programs."

Digital Bedrock is more than an off-cloud data storage provider. As Tadic says, "Storage is the easy part." The critical work involved in digital preservation involves verifying that all data is complete, organized correctly, and not corrupted. Legacy data is often stored on obsolete storage media, written in a backup software that itself can be obsolete. Verifying checksums is only one step in data analysis. "A bad file can have a good checksum," she added.

"Quite often, we'll receive digital films or shows that are only the picture elements, and frequently the picture elements are missing parts," said Tadic when discussing the benefits of a service that inspects and analyzes files before preservation. "We must request the sound and missing elements and then put the entire program together in one package. People in our industry need to come together to decide what parts of a film or television show need to be preserved now, so the content can be restored in the future and not be lost."

While Digital Bedrock can preserve client data in the cloud, Tadic prefers off-cloud data storage such as LTO data tape due to its lower carbon footprint. According to studies, 80% of the data stored in the cloud is archival, rarely if ever used again. She feels there is no need to keep this archival data in storage that uses high amounts of electricity, water, and generates e-waste. In addition, a lot of the conversations around AI revolve around jobs, ... etc" A lot of the conversations around AI, for example, revolve around jobs, the human element of art, copyright issues, and ethical use. However, the environmental impacts are rarely discussed.

"Cloud storage and AI consume huge amounts of energy and water," said Tadic. "All of these technologies require data centers to function, all of which are cooled with massive amounts of water when the globe encounters intense droughts. These data centers use hard drives and solid-state drives, both are made with rare Earth minerals, which are scarce. With millions of users involved, this has an impact on the environment. But this technology is here to stay, and that's why industry leaders need to recognize and take responsibility for the way we use these advancements."

Linda Tadic believes that a good step in the right direction would be creating sustainability standards. SMPTE has a committee dedicated to the creation of such a standard, but it's a goal more standard bodies should be striving towards. Tadic believes that sustainability is only achievable when we can all come together to create it. It's a lofty goal, for sure, but she has the drive and knowledge to be an influential leader for change.

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