WATER DATA DIGEST July 2021 | Issue 7

Seminar Series:

JOIN US FOR "BUILDING A WATER MANAGEMENT PLATFORM"

Mauritz Botha has been a leader at the intersection of operational technology and information technology and its application in industrial control systems in the connected environment. Over the past 30 years, he has developed large-scale, highly secure industrial controls for multi-national companies.

Register here to join us July 29 at noon.

DATA BYTES

Are artificial intelligence algorithms creating "ALGO-RACISM"?

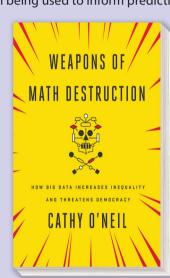
Is Artificial Intelligence (AI) taking human bias out of the equation? Or are AI algorithms cementing, or even propelling, systemic discriminatory practices? Stanford researcher, Katia Savchuk, explores how credit- market algorithms may violate anti-discrimination laws, even though they've been designed not to, in her article for **Insights**.

Joy Buolamwini, a graduate student at MIT, was working with facial recognition software when she noticed that the software did not detect her face. The people who coded the algorithm had not included a broad range of skin tones and facial structures, thereby excluding some faces from the analysis. Her powerful **Ted Talk** reveals that there is more to her story.

In a compelling op-ed for the **MIT Technology Review**, Deborah Raji provides evidence that "...data from the worst-behaving police departments is still being used to inform predictive

policing tools". She asserts that, "Technology is not independent of us; it's created by us, and we have complete control over it. Data is not just arbitrarily "political"—there are specific toxic and misinformed politics that data scientists carelessly allow to infiltrate our data sets. White supremacy is one of them."

Mathematician Cathy O'Neil's 2016 book, **Weapons of Math Destruction**, opened our eyes and continues to serve as a seminal work about big data algorithm's increasing power to influence and reinforce preexisting inequalities. Her skepticism and deep understanding of the technologies allows her the foresight to solve some of the major problems facing big data. She began a difficult conversation that needs to be listened to, discussed, and acted upon.



Tool Talk:

THE BLM'S NEW TOOL IS SPREADING LIKE WILDFIRE

California Wildfire Dashboard. Aggregating data from the BLM, CalFire and InciWeb. This dashboard is designed to display real-time information, providing the public with live wildfire incident information, fire restrictions, and temporary closures. The application is designed as an informational tool, available to the public, to help provide information and awareness on current wildland fire incidents in the state of California and Northwestern Nevada.

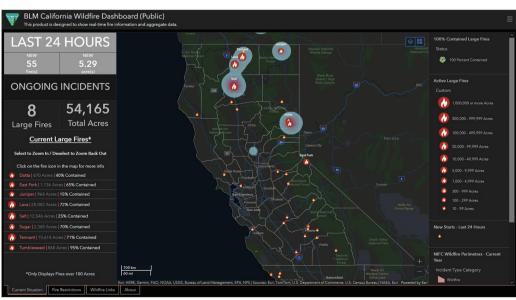


Figure 2: Screen capture of the BLM California Wildfire Dashboard home page.

Dashboards are data driven and composed of configurable elements, such as maps, lists, charts, gauges, and indicators designed to be intuitive and easy to understand. Created in ArcGIS Enterprise using **ArcGIS Dashboards**, the application takes some visual cues from the **Johns-Hopkins Coronavirus Dashboard** and the **Water Board's own Wildfire Recovery Application**, also created in Enterprise.







