A web page created by Alyssa Goodman to showcase the use of technology in research, education, and communication, of science and more.

What's happening "these days?" A sampler of ongoing and recent projects.

The Radcliffe Wave
A gigantic "wave" of dense gas that forms the spine of the Local Arm of the Milky Way. (Alves et al. 2020. Nature)

The Local Bubble
A 1000-light-year-wide bubble surrounding the Sun and Earth is apparently responsible for the formation of all nearby, young stars. (Zucker et al. 2022. Nature)

PredictionX
The best place to learn more about the past, present, and future of the future. Through dynamic online learning, PredictionX uncovers the role of uncertainty in the world around us.

Data + Climate
A collaboration of researchers at Harvard and Google, making data discoverable and available to researchers seeking to uncover novel solutions to climate and sustainability challenges.

When to use what technology?
Science + Technology = \{ \text{Fun, Discovery} \}
"The Heavy Red Bag"
What I learned from Ron Maddalena in 1983: *we can map gas between stars in “3-D”* + use polarimetry to (try to) figure out what magnetic fields look like in space, and that worked, 30 years later.
Update since 1983, just for Ron Maddalena: *we can map gas between stars in true 3-D*
Climate Impact of Increasing Atmospheric Carbon Dioxide

J. Hansen, D. Johnson, A. Lacis, S. Lebedeff, P. Lee, D. Rind, G. Russell

Atmospheric CO2 increased from 280 to 300 parts per million in 1880 to 335 to 340 ppm in 1980 (1, 2), mainly due to burning of fossil fuels. Deforestation and changes in biosphere growth may also contribute. The major difficulty in this theory has been the absence of warming coincident with the CO2 increase. In fact, the temperature of the Northern Hemisphere has been stable, giving rise to atmospheric motions that contribute to vertical transport of heat and result in a 5°C to 6°C per kilometer. The mean lapse rate is less than the dry adiabatic value because of latent heat release by condensation as
Seamless integration of technologies is part of life in 2022—it should be part of learning, research, and communication too.
Dimensions of Discovery: “this Wednesday”
Dimensions of Discovery

Technology in learning and research

tinyurl.com/dimensionsofdiscovery