

Crossing the Digital Divide (v74)

“heat”

by Joseph Feigon

for the Observer

It's cooling off, or is it? Why is my phone so hot? My computer is acting oddly. Sound familiar?

We've all grown dependent upon our electronics: cameras, smart phones, computers, televisions, refrigerators, and the Internet. When devices are new, clean, and inside cool buildings, everything seems to work as expected. Take the same device outside, in your car, truck, or out on the back forty, when the thermometer is pushing triple digits, things can get weird, and quickly.

Devices with internal batteries are the first to feel the effects of warm summer days. As the ambient temperature rises, your device becomes more challenged dissipating heat generated by the internal mechanisms, processors, relays, and modules. Electrons moving back and forth (Facebook notifications, email notifications, message send/receive, cell tower handshakes, wifi probes, etc.) the side effect is heat. If it's hot outside, and your device is hot and getting hotter, what can you do? If your iPhone or iPad or Notebook flashes a warning to cool-off your machine, but you're off to the soccer game with the kids, and you're expecting a call from your middle-schooler, how do you keep your phone from shutting off?

First and foremost, when dealing with heat and portable electronics, shutdown or turn-off all background applications. Today's Smartphones have more processing power than the average PC had less than a decade ago. PC's are usually built inside large metal cases with ample space for fans to move hot air away from critical components. Smartphones, cameras and laptops have no such luxury. You can, however, avoid the dreaded thermal shutdown, do a few things in addition to keeping your devices workload as light as possible:

- 1) Keep the device out of the sun;
- 2) Wrap the device in a white towel, keep a few silica packs handy to absorb any excess moisture (we already know about water and electronics, right?);
- 3) Keep your device powered up - even standby mode in the heat draws down on the battery;
- 4) Make sure your home electronics are not exposed to indirect sunlight - keep those curtains shut if possible;
- 5) Keep the device clean. If your PC is on the floor, raise it up. If your Roku, DirectTV or Wifi router doesn't have adequate airflow, move it so it does. Dust and heat are the #1 reason electronics die earlier than design.

Control those things you can, and keep the surprises to a minimum!