

Technology Corner
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No More Maps

Periodically a new technology comes along that makes life dramatically better. One such technology is the GPS (Global Positioning System) mapping device. The GPS device, about the size of a cell phone, uses timing signals from a set of satellites to determine where it is on the surface of the earth to an accuracy of about 20 feet. This is a free service with no monthly charge.

The major GPS vendors are Garmin and Magellan. The earlier GPS units were had internal batteries with a black and white display, and showed its location on a map of major highways and streets. They are often used for hiking and boating in addition to navigating in the car. These units now cost about \$150. The newer units have color displays, all roads and streets stored in its memory, and voice output. They also perform a routing service from where you are to where you are going by either the shortest route or shortest time. They are meant to be used only in the car and are powered by the cigarette lighter. These vary in price from \$300 to \$1000.

I find these newer units to be amazing. They tell you by voice and show you on the display exactly how to get to where you are going, what turns to make, what freeway exits to use, and what lane to be in for the next turn. You no longer need a map, or even to know where you are going. Just enter the destination street address in the GPS and it will show you the way from where ever you are. The higher end units also have stored a huge number of points of interest (airports, ATMs, gas stations, museums, parks, restaurants, rest stops, etc), which you can select by name. You can, for example, ask for a route to the nearest Burger King. They show you the distance to the next turn, the distance to the destination, name of the current street, and name of the street at the next turn. Most units have an "address book" for frequently used addresses, and also a list of recent addresses. If you leave the route by mistake or another reason, the GPS will immediately recalculate a new route from where you are, and you can continue on without interruption.

We had occasion to use a GPS in southern California recently. We had to find our motel from the airport late at night, and did not have any idea where it was. We simply entered the address in the GPS and followed the verbal and displayed directions. It led us there with perfect accuracy through the labyrinth of Los Angeles freeways, identifying every lane change, turn, and freeway exit, keeping us informed of remaining distance at all times. It certainly takes the hassle and difficulty out of getting around in a strange area. Later we visited the Nixon Presidential Library, the Reagan Presidential Library, and other attractions. We have not yet looked at a map. We do not know where anything is, but it does not matter because the GPS knows.

No More Video Tapes

For 25 years, VHS video tape has allowed people to record TV programs for time-shifted viewing or preservation. They have done an excellent job, but tapes are bulky, have

relatively poor quality, and degrade over time. Video tape recorders are now being replaced by DVD video recorders. The DVD disks provide a much higher quality picture, last longer than tape, have lower cost media (about 40 cents), and are more convenient to store.

Unfortunately, the industry has two DVD standards: the “+R and +RW” standard, and the “-R and -RW” standard. The “+R” and “-R” disks can be recorded only once, while the “+RW” and “-RW” format disks can be recorded and erased more than 1000 times. Most DVD recorders can handle all formats. As with a video tape recorder, you can pre-set a time, duration, and channel number to record a TV program (or simply push the “record” button). Durations for recording can range from one hour to six hours. These DVD recorders cost about \$150.

Higher end DVD recorders include a hard disk and can store up to 100 hours of TV programs. These programs can be viewed or transferred to disk at any time. Programs can be “paused” at any time for a trip to the kitchen or bathroom, backed up and replayed, or replayed at a later time. These units cost \$300 to \$500.