



Google Sky partners Google with the Space Telescope Science Institute responsible for Hubble images like this.

Technology

Google expands the heavens

The sky equivalent to Google Earth lets us map the stars and galaxies

|By Joseph Wilson

Google earth has given birth to Google Sky, and it's opening up a world of opportunities.

In 2005, Google released what appeared to be an excellent time-waster. Google Earth, a platform composed of satellite images of the globe, allowed bored office workers to view their houses from low-earth orbit and check out everything from the Great Wall of China to the Sydney Opera House.

Once the novelty wore off, however, it became clear that the platform was a powerful tool for people to combine their location-specific knowledge with an easy-to-navigate interface. Google Earth mashups, as they are now called, run the gamut from perusing your home city for film shoot locations to checking locations of public toilets in Frankfurt. Google Maps (www.maps.google.com), an interactive map software that runs off the Google Earth platform, has become the online map of choice for people looking up directions.

The newest edition of Google Earth, released last summer, contains a wonderful-looking plug-in that allows users to look at planets, stars and galaxies in the same way they explore their neighbourhoods on the ground.

Google Sky, as it is now known, is a partnership between Google and the Space Telescope Science Institute (STSI) in Baltimore, which is the organization responsible for the gorgeous astronomical imaging from the Hubble space telescope.

The STSI has an excellent site (http://hubblesite.org/explore_astronomy/gsky/) that has begun to explore the possibility of mashing up astronomical data on the Google Sky platform in much the same way users have created mashups for Google Maps. On the STSI site you can download applications that work through Google Sky to view the universe in ultraviolet or to check out the remnants of a supernova explosion.

Recently, a tiny comet known as Comet Holmes swung by the Earth and, contrary to all expectations, erupted to become as bright as the stars in the Big Dipper. Conscientious amateur astronomers uploaded images of this extraordinary event onto the Google Sky platform for Google addicts to explore on their desktops.

The first Google Earth/Sky mash-up was created by www.heywhatsthat.com, an excellent site that allows users to analyze the topography of certain earthly regions. The webmaster has added a link that allows the user to "view in Google Earth at night," which opens an image of the night as it appears at a certain location and date.

The site www.ogleearth.com is a hub for amateur Google Earth enthusiasts and has recently been posting mashups designed for the Google Sky platform, including an add-on that creates boundaries between the constellations imaged in the Google Sky software.

Users familiar with astronomical data are eager to release their findings onto the platform so people can cruise

through them in an interactive manner, focusing on nearby stars, spiral galaxies or whatever else turns their crank.

The real test of a Web applet's staying power is whether average users adopt it and collectively engineer the platform into a state unforeseen by the designers. The future of this platform is wide open. Just as Google Maps mashups have changed people's sense of geography, Google Sky mashups have the potential to change the way people view the night sky.

Such initiatives have the ability to alter the conversations concerning budget cuts for NASA or whether America should put a person on the moon by 2020, as Bush recently promised.

The decision over whether or not to send astronauts to Mars might be greatly influenced by the efforts of amateurs with ideas on colonization they can mash up with a Google Mars platform. Members of the Mars Society, an organization that advocates the colonization of Mars, could dominate the conversation by creating virtual colonies of humans on Mars, complete with planned communities and scientifically accurate settlements.

So feel free to waste some time on Google Sky. The next generation of explorers might thank you for your interest.

