

# UW introduces 'intelligent' kiosks for composting, recycling, garbage

20 April 2012, By Alex Credgington



High-tech kiosks are monitored remotely and compact contents, meaning fewer trips to check and empty them. Credit: News and Information

Solar-powered. Wireless. Data-driven. You might not think of these terms when describing waste collection, but this traditionally low-tech field is about to become less dirty and more digital thanks to a new program at UW.

As part of a just-launched pilot, a number of the existing outdoor garbage and recycling cans on Red Square have been replaced with high-tech, automated kiosks that collect more types of materials. The kiosks will be officially launched during a small ribbon-cutting ceremony at 10:30 a.m., Friday, April 20, during Earth Day festivities.

The new kiosks consist of three containers for sorting [waste](#) - composting, recycling and garbage - each of which is equipped with a sensor that regularly measures the mass of material inside. This information is reported wirelessly to UW Recycling & Solid Waste staff. When any of the three containers in a kiosk reaches a preset capacity, the device sends a text message notifying staff that the container is ready to be

serviced.

Staff also can run reports based on historic collection information.

"The software records what's going on with the hardware," said Jonathan Hempton of BigBelly Solar, the company that supplies this waste collection system. "By logging into the online dashboard, staff are able to see what's happening on the ground in real-time rather than having to regularly check containers by hand."

The garbage container also has an automated compactor that increases the amount of garbage space by roughly 500 percent over the previous cans, and will eliminate four out of every five collection trips, according to Hempton. What's more, the kiosks are completely solar powered.

"It's changing the way we think about waste," said UW Recycling & Solid Waste Manager Emily Newcomer. "We expect the increased capacity and the as-needed servicing to dramatically reduce our fuel use and disposal costs while using a sustainable energy source to create these efficiencies."

The kiosks also include built-in billboards that will be used for educating the public about the benefits of composting and recycling, as well as how to appropriately sort waste materials into the containers.

The UW will be the first university in the country to use this system to capture all three waste types, composting, recycling and garbage, in an outdoor public area.

UW Recycling & [Solid Waste](#) sought the kiosks in response to results from the 2011 annual Trash-In event during which volunteers sifted through a sample of campus garbage and found that 61 percent of [garbage](#) from Red Square was actually

compostable.

Provided by University of Washington

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