

# Adding Diagnostics To The Loop

— A U.S. recycling company plans – with consumer buy-in – to run diagnostics tests on discarded toothbrushes, dirty diapers and used kitty litter to spot dietary imbalances or health issues.

● When 25 global businesses announced in January that they would work with TerraCycle, a recycling specialist, to launch the Loop Alliance Initiative, a scheme that enables consumers to buy a variety of products in customized, brand-specific durable packaging that is collected, cleaned, refilled and reused, they emphasized how it would reduce the massive amounts of single use plastic containers that are polluting the planet. “We’re going back to the milkman model of the 1950s,” says Tom Szaky, CEO of the Trenton, New Jersey-based international recycling company TerraCycle, which is behind Loop. “You buy the milk but the milk company owns the bottle, which you leave in the milk box to be picked up when you’re done with it.” Operating nationally across 21 countries, TerraCycle regularly partners with leading consumer product companies, retailers, cities and facilities to recycle products



The Loop tote.



A number of big brands have adopted the Loop system for durable packaging.

and packages, from dirty diapers to cigarette butts, that would otherwise end up being landfilled or incinerated.

The idea for Loop was founded at the World Economic Forum by TerraCycle and big name consumer product companies such as Procter & Gamble, Nestle, PepsiCo, Unilever and Coca-Cola. At the launch at this year’s annual meeting in Davos the consumer product makers showed off sleek new refillable containers for everything from olive oil to ice cream that will help reduce plastic waste (See the photos.) But the service aspires to be much more than that. “There is a big waste stream diagnostics opportunity,” says Szaky. If all goes as planned Loop will – with consumer buy-in - run diagnostics tests on discarded toothbrushes, dirty diapers and used kitty litter to spot dietary imbalances or health issues. The system could serve as an early warning system for people who rarely visit the doctor, but only if the right policy frameworks are in place.

“The Loop engine is very powerful: we have a direct relationship with the products coming back and we know which consumer it is from,” says Szaky. “There is a whole waste trace from motor oil, cat litter or a child’s diaper. We can take diagnostic samples from these things without any extra work from the consumer to get us those samples and, if they opt in and pay whatever fee that we might charge, they could get a lot of interesting learning from that and potentially live a better life and avoid ending up in the hospital.” Loop will not launch the service unless strong privacy and security measures can be implemented, says Szaky. “The data would never be sold and would have to be held in a highly secure way,” he says. “Our paramount concern is that people using the service feel very comfortable, otherwise it will be bad for business, for the brand and for trust.”

“There is a big waste stream diagnostics opportunity.”

## Getting Started

Loop will begin as a service for replenishing products. Consumers will go to the Loop websites or partner retailer’s websites and shop for brands offering waste-free packaging. Consumers will receive their durable products in a Loop shipping tote that eliminates the need for single-use shipping materials like cardboard boxes or plastic bags. When consumers have depleted their supply of product, they place the empty package into one of their Loop totes. Loop picks the totes up directly from consumers’ homes. The alliance says its team of scientists have developed custom cleaning technologies so that empty containers may be safely reused. It also accepts used diapers, pads, razors or brush parts. Loop replenishes products as needed and returns the refilled shipping totes to the consumer. The service will be launched first in France in May by Carrefour, then be rolled out on the East Coast of the U.S., followed by London, Tokyo and the rest of world.



Toothpaste won’t come in a tube anymore. It will come in a jar in the form of tabs.



CoZie’ deodorant’s new durable packaging.

## The Diagnostics Opportunity

Loop plans to roll out the diagnostics service step by step, starting with non-biological products. “Used motor oil, which contains residual engine scrapings, can tell a lot about the health of the inside of a car engine that you could never figure out on your own unless you take it apart,” says

Szaky. “There is a whole range of these types of products.” Next Loop will look at running diagnostic tests on animal waste. “By testing urine on cat litter we can spot things like urinary tract infections and if the pet’s owner is willing to tell us a little bit about the age and species we could make appropriate recommendations, such as what type of food to give them or whether it is necessary to take them to see a vet,” says Szaky. “It can work as a preventative measure versus going to the vet when it is too late or having the poor animal suffer.”

The step after that will be examining used toothbrushes, human fecal matter on a diaper, or blood on a feminine care product to determine general wellness. Checking these types of products would enable Loop to establish an individual’s baseline and warn them when something seems

out of whack. It could be as simple as dietary recommendations or serve as a physician’s aid, spotting problems early on and urging people to go see their doctor. Dirty diapers could provide the type of information parent may find useful such as knowing if a breastfed baby is getting the right amount of food, how their gut is doing or whether they need vitamins, he says.

There might be a way to tie the results into products and determine what kind of baby food or pet food is best, says Szaky. Consumers might also be interested in multiple options, such as testing both their toothbrush and hairs on a razor blade. “This might produce a third learning that we could not know without both pieces of information,” he says.

So what is the timeline? “It could be 10 or 20 years away,” says Szaky. “It is a journey. The big insight is that by having a direct relationship with the waste of products a huge ecosystem opens up. We are going to go very slowly and test the

boundaries of how far this process can go and what are the limits to ensure that it can only create benefits and no way do anything that does the opposite.” The world has taken ‘a make waste approach’ and given discarded items a negative value. Diagnostics could create a different relationship with products. “There is so much opportunity to change that in a way that we have not thought about before,” says Szaky. “This is an amazing area of innovation and discovery, one that could turn a negative problem into something phenomenal that can do a lot for people.” ●

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