

Turning to Tech to Stop Fake Products



<https://www3.nhk.or.jp/nhkworld/en/news/videos/20221116162907445/>

Wagyu beef, sake, and malt whiskey are some of the Japanese products enjoying strong exports, but with growing demand there's also a growing problem of fakes. Companies are turning to high-tech solutions.

Kato Atsuhide has been busy promoting his sake overseas. Today exports account for nearly half of all his company's sales. This limited-edition lists for about \$100 per bottle, but in China and America it can fetch up to \$2,000. Even empty bottles turn up on auction sites making it possible for counterfeiters to refill a bottle with cheaper sake and resell it as new.

There is no telling how much revenue we have lost so far. It could run into the millions of dollars.

The brewery adopted a solution developed by a tech company in Tokyo. The usual paper seal found on a bottle of sake is given a modern update with an IC tag. The tag holds a serial number and indicates whether the bottle is sealed or not. It is scanned with a smartphone that connects to a server. Then the type of sake and other information is sent back to the phone. A bottle that has been opened once has its status permanently changed in the server. The IC tags cost more than \$1 each, but the company that developed them has had inquiries from more than 50 other sake breweries.

I believe we are boosting brands and credibility in the products themselves by providing evidence that proves authenticity.

There is another way to tag products that is smaller and even edible. A smartphone app is used to scan a pill and pull up information about the medicine. The surface of the pill is coated with tiny tags developed

by an American venture company. Each tag is just a tenth of a millimeter across, but they are identical in shape. The shape of the tag pulls up information from a database such as the name of the drug, use, and dosage. The tags are made up of non-toxic silicon dioxide also known as silica. Once approved by the government, the technology can be used for food traceability.

If you leave the tag in a completely undetectable location, it cannot be stolen. I want to make an infallible method of preventing fake products.

The tag powder can be added to a product for less than one cent and can even be used on meat or fruit. These technologies are helping companies protect their unique brands and products.

Source: (NHK World News)

Now discuss the questions with a partner.

1. What do you think about these technologies?
2. What problems do you think these technologies could have?
3. What other types of products do you think could take advantage of these technologies? What other types of products are often counterfeited?
4. Can you think of any ways to use these technologies other than authenticity of products?
5. Can you think of any other ways to prevent counterfeiting?