Interactive product labels require new regulations, study warns

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Artificial intelligence will be increasingly used on labels on food and other products in the future to make them interactive, and regulations should be reformed now so they take account of new innovations, a study warns.

Thanks to the increased use of smartphones, smart-watches and other interconnected products, labelling on foods and other goods may become more personalised and thus more helpful, addressing consumer concerns,

such as nut allergies.

Facial recognition technology can be used by shops and manufacturers to collect data on the specific needs of consumers, as well as to prompt shop staff to offer assistance or enable features such as large print on labels, if necessary.

The study says AI technology could play a significant role in making labelling more comprehensive and personalised, but regulators across Europe must ensure the technology is also used for public good and to help consumers. Changes are especially needed because AI is currently mainly being used to collect data about customers, or to help manufacturing or distribution.

The changes should include the introduction of more specific rules about the design and content of consumer product labels in order to prevent producers from manipulating consumers' product and safety expectations by using AI.

The EU Product Liability Directive is being reviewed and it is hoped the research, published in the *European Journal of Risk Regulation*, can contribute to this work.

Dr. Joasia Luzak, from the University of Exeter Law School, who carried out the research, said: "Modern technologies mean consumers can have more personal and comprehensive product labelling. The pace at which AI is being used means it would be wise to rethink the whole framework of the Product Liability Directive or to design a separate set of rules for products using modern technology. There is a danger this technology will only be used for the benefit of companies, not consumers."

The technology could benefit consumers as, for example, they could

store the information on their allergies on a smartwatch, which information would then be picked up by interconnected, store devices. As a result, ingredients to which consumers are allergic could be highlighted on the labels of products when consumers near them. Companies often say it is not their responsibility when a fault occurs to the product after it leaves the manufacturing process and is put into circulation. However, if they continue to monitor the product through AI after the product is put on the market, or if they retain the right to adjust information on the labels, the study says this justification should no longer apply.

The research says more extensive AI product labelling, providing consumers with a greater list of warnings about product risks, should not be an excuse for manufacturers to avoid taking action or pass responsibility when a product becomes unsafe or malfunctions.

Dr. Luzak said: "Consumers will likely pay more attention to personalised labelling. The use of modern technologies to personalise product labelling could be in the interests of both producers and consumers.

"Producers could gain more insights into their supply chain and more control over their products, as well as reaching more consumers with their product information. Consumers should be able to rely on better product information and to form more realistic expectations regarding consumer products.

"The increased tracking and monitoring of products should raise the level of product safety, which always reduces the instances of product liability."

The study says the definition of a "defective product" in the Product Liability Directive should be based on an objective assessment of

product safety. This could be the product's adherence to safety standards and experts', rather than the public at large, safety expectations.

Provided by University of Exeter