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Towards transparent intelligence

Hoe intelligent is jouw slimme product eigenlijk? - Slimme producten veroveren stap voor stap onze huiskamers. Vaak hebben gebruikers moeite deze meteen te snappen, mede door het ontwerp. Wat maakt deze ontwerpen lastig om te begrijpen? En hoe voeg je intelligentie toe aan design? Maak kennis met Nova, intelligente interface voor de controle van luchtkwaliteit.

Toward transparent intelligence

Really, how intelligent is your smart product? - Smart products are invading our lounges step-by-step. Users often struggle to understand them quickly, partly due to their design. What is it that makes these designs so difficult to comprehend? And how do you add intelligence to a design? Learn about Nova, an intelligent interface for monitoring air quality.



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Unaware objects

Een onbewuste lange-termijn-interactie met design-producten - Unaware objects zijn er wel, maar ook niet. Ze zijn zo ontworpen dat ze geen aandacht nodig hebben of vragen van hun gebruikers. De objecten voeren voorgeprogrammeerde processen automatisch uit, hebben geen expliciete output-functies, ontberen traditionele interfaces of controlemechanismen en zijn immuun voor rechtstreekse interactie.

Unaware objects

An unaware long-term interaction with design-products - Unaware objects are both there and not there. They are designed in such a way that they need no attention from their users. The objects act according to pre-programmed processes, do not have any explicit output functions, lack traditional interfaces or control mechanisms and are immune to direct interaction.



Meaningful communication with the technology that surrounds us

A washstand that 'makes an impression'

In general, signs of wear and tear are often a reason to consider buying a replacement. With 'Mizu' it's different. Traces of use are deliberately made visible so that people can see how they have been treating their product. Industrial Design Engineering PhD student Holly Robbins devised the concept together with fellow students in the hope that consumers would become more aware of the way technology works and learn (or be reminded) how to communicate with it.



Technology is becoming an increasingly important part of our lives and is increasingly complex. That complexity is not something we are usually aware of because products are designed to make their use as simple and clear as possible, thus masking their complexity, as it were. 'The result is that we often lack an appreciation of the way technology works. And that can result in over-consumption', says Holly Robbins. She takes the way we use central heating as an example. 'If you know that you'll be leaving the house shortly, you don't light a fire in the hearth; it would take too long. It is much easier to turn the thermostat up a couple of degrees, but then you run the risk of forgetting to turn it down again when

you leave the house.' The point is, according to Holly, the more technology simplifies life, the further removed it leaves us from the actual function, like heating the house in Holly's example. The result is wastage. This problem requires a different approach. Holly: 'The challenge is to develop products that demand our attention regarding function and usage. We want to increase people's involvement with technology so that they become more aware of their consumption patterns.'

'Smart' washstand

In order to bridge the gap between people and technology, Holly and her fellow students



'We want to increase people's involvement with technology.'

(Shen-Kao Cheng, Beatrice Chichiarelli, Max van Heeswijk, Lennaert Kempers and Olivier van Nieuwmegen) have devised a new, 'smart' washstand: Mizu (Japanese for 'water'). On the one hand, Mizu is intelligent like so many of today's new technologies, Holly explains. 'The washstand is connected to the Internet and is therefore able to register water consumption and adapt to suit the individual's habits. But Mizu is also very efficient thanks to the way it communicates with the hot water supply and the pump system. The boiler switches off automatically if no-one is detected nearby the washstand.'

When it comes to instructions for use, Mizu is intelligent in a whole new way. Holly: 'Mizu works differently from most washstands. There are no tap handles and sensors you just have to hold your hand in front of because, figuratively speaking, they don't show us anything about how the product works. Instead, sensors in the bronze rim of the washstand respond to specific movements, movements that clearly indicate some aspect of the washstand's function. For example, in order to get hot water you have to rub over the bronze rim towards the right, as if you were warming your hands. For colder water you have to tap the rim gently, similar to the way you would waft cold air towards yourself. The left side of the bronze rim is used to adjust the force of the water flow. If you sweep your hand towards the tap – as if you were pushing

the water forwards – the pressure increases. The water flow is reduced by moving your hand in the other direction.'

Double message

There is a good reason for using bronze, Holly continues: 'Bronze shines when it is rubbed repeatedly. Over time, you can see a clear difference between the sections of the bronze rim that have and have not been touched; visible traces of use that reflect the user's behavior at the washstand. The shiny bronze 'communicates' with the user, so to speak. Our aim and our hope is that this type of communication will shorten the distance between man and technology, and make consumers more aware of their water consumption.'

'Mizu is intelligent in a whole new way.'

The first prototype clearly attracted great interest, Holly told us, even though it did take people a little out of their 'comfort zone'. 'The challenge now is to dispel the preconception that visible traces of use represent something 'dirty'. The fact that for our project we have chosen a bathroom washstand – a beacon of hygiene – makes it even more interesting.'

material innovations



Hoe virtueel ons bestaan ook aan het worden is, uiteindelijk is de materiële wereld de omgeving die we niet kunnen missen. We blijven constructies nodig hebben om te wonen, te werken, beschutting te vinden en ons fysiek voort te bewegen. Met de opmars van 3D printen openen zich ongekende nieuwe mogelijkheden, the sky is the limit. Maar er is meer. Ook met ijs valt veel verrassends te creëren.

No matter how virtual life becomes, we cannot survive without the material world. We need constructions for housing, working, finding shelter, and for our physical mobility. The development of 3D printing is opening up unprecedented new possibilities – the sky's the limit. And that's not all. Ice is another incredibly versatile material we use to create.

