

Educating Water Hackers



Giacomo Piovan proposes how

The world doesn't stand a chance without clean water. Inadequate water spreads disease, compromises safety, makes education elusive and economic opportunity farther out of reach. The lack of access to clean water is deadly, dangerous, and a major obstacle to the economic empowerment of people in developing nations. In most of the developed world, we take access to safe water and sanitation for granted, yet a little more than a century ago, New York, London, and Paris were centres of infectious disease (child death rates were as high then as they are now in much of sub-Saharan Africa). Sweeping reforms in water and sanitation enabled progress. So what must we do today to prevent the worldwide water shortage?

Text KURT VANBELLEGHEM



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In other words, it's not the role of a designer to merely design sustainable objects, but to actually develop objects and methods that encourage people to take responsibility for a sustainable way of living. End-users need to be informed and empowered to act themselves. These designers are hoping to turn each of us into an activist for a sustainable world.

Italian-born, Luxembourg-based Giacomo Piovan is one of them. Together with Lynn Schammel, he founded Socialmatter Design Studio in 2013. His approach is all about creating a sustainable impact within existing societal structures instead of designing products with new environmental footprints. He works on design strategies that connect many different spheres of society, and his thinking is often based on experimental scientific research. According to Piovan, sustainability should be present in all aspects of our daily lives and can only be obtained when the product, service, or event offers a perfect balance between its economical, social, and ecological aspects. The designer can only enable this performativity; it is the end-user who must activate it.

WHOEVER is involved with water is involved with sustainability. Our overconsumption of fresh water is not an issue anymore; it's a threat. In 2030, the availability of fresh water will have become such a major global concern as to truly be considered one of the most important menaces to human development. This concern is not new, and it cannot be said that the world remains completely negligent. Designers and producers of water-related appliances know that they cannot be taken seriously anymore if their products don't address the matter. There are cleverly designed devices and services that are rightly marketed as sustainable design solutions. The problem with this, however, is that the sustainable aspect remains enclosed within the designed object, limiting the empowerment of the end-user to the actions of a consumer. It does not create a lasting impact on our behaviour. Installing water-saving showerheads doesn't

automatically make you think twice before buying a cultivated African rose in your local flower shop; yet cultivating that rose used over 2,700 litres of water, water which is almost always drained from vitally important local water supplies.

This is not to say that we don't need those sustainable features, but they're only part of the solution. To tackle this all-encompassing water shortage, what we really need is much more involvement from everyone. And we need it now. Designers working in the vanguard worldwide are taking things a whole step further. They seem to be advocating the homo sustinens concept of German economist and ecologist Bernd Siebenhüner, in whose writings a case is made for the development of a series of tools enabling people to hone their personal skills to achieve the practical implementation of a sustainable global concept.

Some local events, like the dramatic water-pollution scandal in Luxembourg, convinced Piovan to direct his efforts and methods to the subject of water. His main objective is to design strategies that make people aware of the scarcity, the contamination, and the privatisation of water so that they can obtain an awareness which goes beyond the general disinformation being distributed about the quality and ownership of water. In 2013, he established



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the Water Hackers project, initially directing his efforts towards young people, as they are used to just opening the tap whenever they need water but remain totally unaware of the dynamics behind it. In order to reach them, he decided to have them touch and experience water, not just read about it or see it in a movie. He therefore designed a water filtering system made of used and waste materials easily found everywhere, and translated this process into a workshop.

The impact Piovan seeks is created through these youngsters, not because of their participation in the workshop but because afterwards they went home and applied their newly gained knowledge within their own social environment. In a second phase, he collaborated with scientists and IT specialists from Luxembourg to further develop the filtering system and to obtain more insight into the various aspects of

water quality in the city. This resulted in a 'citizen science initiative' whereby participants could create their own tools to collect water from different sources and then analyse and filter it. Those workshops were not about the fabrication of tools but about the action of doing something with water. Impact is created through activity, through experiencing water. By the end of 2017, there will be an online platform called Watergram, through which insights and experiences can be shared and everyone can contribute open-source DIY technologies for the collecting and filtering of water.

Clearly, Piovan's co-design approach is no longer focused on the creation of objects or even on the tools used in the workshops – they are all means to an end. His energy has been redirected towards actively changing behavioural patterns. By doing this he can create a larger impact,

although that's not the only reason he is developing these educational processes. Learning through experience is much more rewarding than learning through books. Everyone is different and absorbs information differently, but once something is learnt through doing it will have a more fundamental influence, with the potential to change one's behaviour. As a designer, Piovan no longer wants to solve this issue by himself; he wants to enable all of us to act responsibly so that together we can put an end to the wicked problem. Awareness is not enough. ♦

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