

# REALITY BITS

The most valuable way to augment our reality may not be the adding of a layer to life

**P**art of the power of Marshall McLuhan's famous aphorism – the medium is the message – comes from the forced foregrounding: it highlights the communication effect of the medium itself, which our brains filter out, rendering the wrapper invisible.

McLuhan understood a medium to be an extension of the senses. The early promise of Augmented Reality (AR) hinted at an evolution of them – the incorporation of those extensions into our direct perception. AR suggested that we would navigate reality using a data layer. What was at first rendered on the screen of a mobile phone would, in accordance with Moore's Law, get smaller and cheaper, first appearing on the inside of glasses, then as a laser etching lines across a contact lens, until finally, incorporated into hand and eye, the medium – the web – dissolves from our senses, because it has become one of them.

Turns out, that's not the most interesting bit. We thought it was the web in the world that would change everything. Instead, it may well be the digital exhaust of real life, in all its predictable irrationality, which heralds the biggest shifts.

## Digital exhaust

Accelerometers and GPS now come as standard inside many of those personal computers we call mobile phones. They are Bruce Sterling's SPIMES – objects that know where they are in SPace and tIME – wagged to life by the trail they create.

The digital exhaust of our personal and collective lives, largely invisible through nascent stages of the web and mobile, is revealing itself to be more natural resource than pollution.

Everything creates data, and now we can give this airy nothing shapes and names. Through applications built to harness it, we can view our lives as we move through our social life (four-square), real or virtual spaces



(Nike+/vovurl), meals (FoodSpotting), drives (BMW's EVolve) and emotions (Happify /Mappiness). The mainstream interest in this previously invisible undercurrent of data can be seen through the visualisation explosion. It's changed the narratives of journalism and is painting new pictures of our lives.

However, when we go beyond simply painting pretty pictures of our fumes, you begin to realise something athletes (and musicians) have always known – feedback creates loops.

## Seeing your behaviour, changes your behaviour

What starts out as a way to capture what you are doing, begins to change and affect what you are doing, as you look to optimise, to game the system, to compete, to win. We now mesh our personal exhaust with that aggregated from the world, allowing discovery of new and better ways to navigate our reality as we move through space and time. Fitbit [personal activity monitor] and Nike+ both feed, and feed off, these fumes.

Donteat.at an application that automatically matches public

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data from the New York City Department of Health and your foursquare data to send a SMS alert if the restaurant at which you just checked-in at, no matter how gilded, is dirty under the surface. Location based reminders such as Geo-Reminder prompt you to complete an errand when you happen to be in the right area – letting our exhaust stream engage with its own time-shifted self.

But what happens when the fumes change *state* demonstrates the impact that is to come. Our digital exhaust becomes a remote control for the physical world. Data that confirms where we are and who we know, can actually unlock doors, as aptm.net did for its New Year's Eve party. Near field communication lets you tip with a tap.

## The law of large numbers

The digital exhaust is not limited to how we can view our individual worlds – it influences how the world sees the world.

Human beings don't scale in a linear fashion – a crowd does not behave like a lot of individuals, because the dynamic interactions between individuals create

a system with emergent properties. Now that three quarters of the world's population has a mobile, we can begin to look at some of these emergent behaviors, with a bird's eye view.

This view may provide a greater extension to our collective senses than anything McLuhan dreamt of. "It is not just about observing what is happening; it is about shaping what is happening," says Dr Bollen, a network scientist at Indiana University. "The patterns are allowing us to learn how to better manipulate trends, opinions and mass psychology." Epidemics can be predicted, influencers identified – all from looking at the patterns we are unconsciously creating, in response to patterns unconsciously created by others.

Proximity has power – the biggest influences on your behaviour turn out to be where you are and whom you are with. Networked systems can create new solutions. One solve for traffic is networked cars, communicating every disturbance to every other node, reacting in real time to prevent accidents and gridlock.

A networked crowd, connected to the cloud, would create tighter feedback loops, more visibility and the possibility of creating significant positive externalities. If you knew tiny changes in your behavior could directly affect those most in need – would you be inspired to change? Groundcrew.us already taps into this. The platform utilises geo-location and messaging to help people find and participate in volunteer projects based on where and when they are.

Perhaps the most valuable way to augment our reality is not adding a layer of data to help us understand the world, but rather the kaleidoscopic glimpse through the compound eye of the network that helps us understand each other and ourselves.

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