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## Taking the New **Neologisms Offline**

"The New Aesthetic"

"Tangiblasts"

"Boomeranged metaphors"

"Eversion"

"Flip flop"

"Meatspacing"

There are so many new words for what seems, on the face of it, to be a new phenomenon [1]. Images and widgets are sliding off the screen and ending up in what geographers call the cultural landscape—and what the rest of us call the real world. Facebook "Like" icons supplement graffiti. End tables are painted to resemble Nintendo controllers. T-shirts for sale at hip markets are plastered with Atari graphics.

But is "meatspacing" really new? People have long shown a talent for decoding, manipulating, and reappropriating symbols. In the 1980s, Mercedes-Benz hood ornaments became pendant necklaces. In the 1990s, carabiners and Nalgene water bottles stood for eco-consciousness. Today, a few inches of red, pink, or yellow ribbon telegraph completely different ideas.

The stream of symbolic meaning flows the other way, too. Brands lay claim to every mundane element of the perceptible world. Imagine "cold" and "red and white" and try not to think of Cola-Cola. The company's role in promoting the myth of Santa Claus is well known, but Coke also once equated its product with the humble arrow symbol.

As a graphic device, arrows were hardly new. Then Coca-Cola made the arrow a key part of its ad campaign. Huge arrows were painted on the sides of buildings, a simple and cost-effective way to advertise. The company's 1909 slogan was blunt: "Whenever you see an arrow, think of Coca-Cola." In moving meaning from tin cans to print advertisements to brick walls, iconic imagery transformed urban settings, and the physical world took on the ephemeral qualities of the marketplace. But the arrows didn't last, and few people retain any association between arrows and Coke. Will the meaning of the precious-metal mouse-pointer necklace be apparent in a hundred years? Probably not.

In 1992, Roger Silverstone described the process of domestication, or how technology becomes a seamless, ordinary part of everyday life [2]. In domestication, meanings, use, political power, infrastructure—the component things of any sociotechnical system-are folded into a material artifact, subsumed by the artifact's ubiquity in everyday life. When we turn the dishwasher on, we don't have to think about the untold

numbers of systems responsible for supplying water, energy, and powdered detergent; we simply fill it up and hit the button. So perhaps memes—in the form of digital images—are one way we are domesticating our online interactions. If showing our affiliation to something on Facebook is usually expressed by clicking the "Like" button, the appeal of a customized "Like" stamp on Etsy (\$29.95) is perfectly clear. We are having a bit of fun, of course, but we are also integrating the meaning of that "Like" button into the material world, in effect obliterating the difference between online and offline.

But there is more going on behind the scenes. Social media has held out the promise of interaction and personal expression, but behind the good feelings lurks big data. Facebook's "Likes," as has been well documented, are not simply a way to express one's affection for a product, but a back-door way to share a surprising amount of personal information. The information is shared with Facebook and, in the case of many ad campaigns, another corporation. Chase Bank's "Mission: Small Business" advertising campaign was criticized for harvesting a bounty of personal data while awarding the comparatively paltry prize of 12 \$250,000 grants to its crowd-sourced winners [3]. Facebook appropriated the meaning of the word like, so it should not be surprising that people have taken it right back by buying pixelated, personalized "Like" stamps on Etsy. By shifting mediums, users are domesticating their online interactions bringing branded meanings back into their domain of influence.

Perhaps the Nintendo end table and Space Invaders t-shirt, however, are different. For Gen X-ers (and those in Gen Y, who are cooler than us by birthright), the imagery of practically prehistoric videogames evokes nostalgia. Back then things with microprocessors were a means of entertainment and pleasure. Much like Garbage Pail Kids trading cards and packets of Pop Rocks, they recall the 1980s

of a John Hughes movie, nostalgic symbols of a supposedly simpler time, when the goal of consumption experiences was enjoyment rather than the exchange of personal data for amusement; playing Super Mario Brothers would have been a much different experience if a targeted ad popped up at the end of every level. But it's not all



misplaced nostalgia for simpler days: Perhaps we are also finding the world of online life a bit thin. Remember that the lack of network connectivity of early game consoles required face-to-face interaction. You played Space Invaders with friends sprawled next to you on the living room floor, looking over your shoulder, egging you on. Controllers and game cartridges were the object of argument: Who got to play the next level? Instead of Scrabble we now play Words With Friends, but without the tiles spread over the kitchen table, there's little incentive to finish a game—and matches get forgotten.

Yet the distinction between online and offline is artificial, at best; it's akin to a highway sign declaring "Scenic Area Ahead," as though the rest of the landscape is not worth looking at. As we turn to human-computer interaction and technology design, we find the recent media attention to the "New Aesthetic" foregrounds salient cultural distinctions in ordinary life. Whether dwelling on the past or reimagining our future as human beings in the form of points of data, translating imagery from online to offline works to further reinforce the boundaries between each medium. Wearing a mouse-pointer necklace connects the seemingly immaterial, individual act of online browsing with the complex relationships of the fashion system; the necklace reifies a cultural boundary between pixels and metal. It arises from what Thomas Gieryn calls "boundary work" in the sciences: making and maintaining distinctions across social worlds to justify claims to authority and resources [4]. If that necklace could talk, it would say, "in my other life, I use the computer a lot."

Dualisms are problematic, if alluring, traps for design. We instead advocate an integrative approach. To reconcile the gap between the physical and the digital, design researchers have introduced a range of new concepts and new words. Terms such as hybrid ecologies [5] and computational composites [6] focus on the hybrid nature of new media compositions. The relevance of these constructs to technology design is the analytic shift they are meant to enable. That is, these concepts support moving away from understanding things as either essentially digital or essentially physical to thinking instead of all things as material. This new catch-all category, where the digital is understood as always embedded in and inseparable from physical stuff, accommodates a widening array of technologies and processes available to HCI. Piezoresistive textiles enable new touch-sensitive surfaces; shapechanging polymers make possible a range of flexible, sensory-rich interactive environments; and conductive thread sewn into fabric creates wearable antennas.

Semantics matter. Rather than postulating neologisms such as "meatspacing," we might better ask why we feel a need to name "that thing where a digital thing appears in the physical world." Naming seems to help us reinforce cultural distinctions. It can also help us renegotiate them. What we call things—and those technologies that earn the right to be referred to as things with cultural force (such as television, logistics, and the iPhone)—brings to light cultural boundaries that are otherwise difficult to identify and interrogate, but are key to the domestication process. Rather than reinforce problematic distinctions or trip

into the pleasant but obfuscating haze of nostalgia, we might use the uneasy or funny moments when things appear to be seeping from the digital to the physical world to ask about opportunities for design. In these moments, we might see how design could accommodate a wider array of concerns by unpacking the critical role of boundary objects in the constitution and reproduction of social relations. Rather than build linguistic bridges to soften an artificial divide between online and offline, HCI researchers might explore those sites where the physical and the digital are impossible to separate. Yes, Space Invaders t-shirts are cute, but Instructables Restaurants [7] and Pinterest Potlucks reflect emergent patterns of behavior, interaction, and expectations for the design of technology. What we do with boundaries will have deep and constitutive effects on the nature and organization of our future worlds.

## ENDNOTES:

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