## Making the Commonplace Novel (Again): Reinventing Products

The new Beetle. The iPod. The phone. The television. The graphical user interface. The workplace. The history of Design is filled with the reinvention of existing products, recreating and rethinking them, giving them new forms and finding new uses for them. But how do designers take a current product and by re-imagining it make it fresh and relevant again? My thesis paper will look at some of the methods that have been used to innovate products in the past, review case studies of reinvented products, and suggest new or improved methods of rethinking products. I will also examine works by theorists who have thought about invention, such as Kenneth Burke and G.K. Chesterton, as well as designers such as Raymond Loewy who turned existing products into powerful new forms.

My thesis would begin with two essential definitions: what is a product and what is reinvention. A product is defined as anything that is crafted for use by humans for some purpose, be it analog or digital, a physical object or a system. Invention, the creation of new products, can come from two places: coming up with unthought-of things or else taking existing things and recombining them in unique ways. Reinvention is the latter.

A product can be characterized by its means (how it is made), material (what it's made of), form (shape and style), and function (how it works). When a product is reinvented, one or more of these characteristics will be changed, sometimes radically. Indeed, radicalism is required in reinvention; anything else is likely not a true rethinking of a product, just a revision (Photoshop 10, anyone?).

The reasons we need to reinvent products are many. Indeed, designers often spend their time undoing—or redoing—the work of other designers. Often, the products we use provide inchoate experiences. Or they do not respect the community of use. Or the metaphor that drives the product has become stale. (This last is certainly true for the UI "desktop.")

There are also forces outside the product that can cause it to need to be remade. Market conditions can make previously viable products unfeasible. New technologies can make current incarnations irrelevant. Political forces can encourage or discourage systems of work or thought. Natural or man-made disasters can create needs that current products cannot meet. The reasons are numerous.

An essential problem with reinvention is finding unique solutions. Contends influential industrial designer James Dyson in a *Business 2.0* article, "It is much easier to reinvent the wheel because the faults of the existing system are fairly obvious. The hard part is to find a solution that everyone who has come before you has not found." Any examination of reinvention would have to tackle this problem head-on. Assuredly, research plays a part in discovering what is has been done, but more importantly, it is the designer's art of invention that can create the new solution. The arts, methods, and techniques that designers can use (and reuse) to wholly re-imagine products will be a substantial part of the thesis paper.

One particular method to explore is the use of topics. Using topics—either the designer's personal set or others like the four master topics (Things, Thoughts, Words, and Deeds)—are ways of changing perspective on an existing product. Topics are about breaking the fixed meaning of things to look at them in new ways, about turning the commonplace into the novel. In other words, they are about reinventing. By shifting something from one of these places into another (looking at a Thing like a chair as a

Word, for instance), it allows us to get a new perspective. As Burke says, we gain perspective from incongruity. Likewise, when considering new forms, Burke's Four Master Tropes can be examined in the light of invention and visualization.

Another area of exploration will be Raymond Loewy's concept of MAYA: most advanced, yet acceptable. This has a lot to do, I think, with a product's *logos*, *pathos* and *ethos*. Logos in that its technological argument must be sound (most advanced). Pathos in that the needs of the audience must be accommodated (yet acceptable). And ethos, in that the character of the product must be one that the users find desirable enough to try.

I would like to include several case studies of reinvention, where products have been radically rethought and have changed the way we live, play and work. There are many of these, but I would like to choose one from each of the four major categories of products: information, artifacts, services, and systems. Tentatively, I'd like to look at the Map of the Market (information), the Palm Pilot (artifacts), Amazon (service), and online stock trading (system). Hopefully, by looking at a wide range of products, I will be able to find commonalities in the designers' methods of (re)invention. I would like to extrapolate from these case studies methods of reinvention that could be applied to other future products in need of innovation.

By doing so, I hope to give designers not just the tools with which to attempt reinventions, but also the courage to do so. It takes courage to experiment, to rethink, to re-imagine, to reinvent rather than present just another tweak to an existing design. And then to present the new idea to those who make the decisions about them, some of whom have a vested interest in preserving the current design. It takes courage to say, "Let's try this another way."