...market

By Jesse Ashlock

Retail Oriented

Designers can make and sell nearly anything at the online object factory Ponoko.

At first glance, Ponoko might look like an online hobbyist emporium, where you can browse tchotchkes like coasters and clocks sold by tinkerers around the world—similar to Etsy, the online marketplace for handmade goods. Stay long enough to understand how those tchotchkes got made, however, and you'll realize that Ponoko is much more than an online store: It's a new technology platform and distribution system that's already enabling a paradigm shift in the way objects get designed, fabricated, and sold, with potentially greater implications down the road.

Unlike Etsy, everything available on the Ponoko site is designed by Ponoko members, and all Ponoko members are designers. As Derek Elley, Ponoko's co-founder and chief strategy officer, explains, Ponoko is a step beyond the "mass personalization" offered by sites like CafePress, Zazzle, and Threadless, which allow users to stamp 2-D designs on T-shirts and bumper stickers. It's the start of a new era of "mass individualization, which is being able to build any product from scratch."

Users with all degrees of experience with design software—from Adobe Illustrator to Google SketchUp—can design a product on Ponoko and then transfer their vector file into the site's templates (or draw their design freehand and send Ponoko

a photograph). The company then uses a laser cutter to fabricate the product from materials like metal, felt, plywood, and bamboo. The final object is shipped to the designer in a flat pack for at-home assembly. If you think your design has legs, you can offer it for sale on the site, as more than a thousand of Ponoko's 15,000 members are currently doing. Some have become quite successful, like the Boston design duo Nervous System, whose radial felt necklaces derived from computer algorithms have been big sellers not only on Ponoko, but also with The Shop at Cooper-Hewitt, which acquired the jewelry in conjunction with the museum's current "Fashioning Felt" exhibition.

Elley started the company with CEO David ten Have out of a shared frustration with how difficult it was to get products made [see "Rant," p. 20]. The pair had also worked together on a climate change initiative, where they'd become aware of the massive carbon footprint a single product possesses. Manufacturing on demand can help reduce that footprint, though Ponoko, which is based in New Zealand, must still negotiate the environmental and financial costs of shipping designers' products around the world. To mitigate those, Ponoko is opening a second factory in San Francisco this summer and developing

a global system of micro-manufacturing nodes.

This business model has proven convincing enough that others are now offering similar services, like the Dutch company Shapeways. Ponoko reached profitability last year in its 14th month, and it's now looking for other ways to expand, including becoming a supplier to major chain retailers. "It's a model we call no-risk retailing, which means come to Ponoko, pick the products you want, put them in your online shop, and wait for someone to buy them before manufacturing them," Elley explains.

Ponoko points the way toward a future in which 3-D printers are as ubiquitous as computers are today, allowing consumers to fabricate products right on their desktops—truly local manufacturing. This is a scenario that initiatives like Thingiverse, a library of designs for at-home digital fabrication, have already begun preparing for, and at Ponoko, too, you can find product plans for 3-D printers alongside the jewelry and nightstands. "Yes, we're part of that conversation and we aspire to that," Elley says. But, he adds, "You're a bit of a lunatic talking about that today. Our starting tagline is 'Making It Real.' It's not theoretical, it's about making things now."

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