

The Wild Format guides are intended to expand awareness and understanding of the craziness that can be created on wide format digital printing devices, from floors to lampshades and everything in between.

These guides are made possible by Digital Dots with generous support from HP, Techkon and Zünd.

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## How You Can Be Your Own Textile Designer (and why you should be)

Most of today's fashion business is an unsustainable and highly unfair mess. So it is a big relief that digital textile printing and finishing enables creative professionals to make sure their designs can be produced fast, on-demand and in a more environmentally friendly way.

The fashion industry of old was a slow-moving monster: big designer names created two to four collections per year for international brands, and showcased them

at international fashion weeks in Paris, Milan and New York. Haute couture for the lucky few, prêt-à-porter for the not-so-lucky, but well-off, and boring High Street fashion for the rest of us. Of course, the internet has changed all that.

And we are not (only) talking about Instagram, Pinterest and Facebook at this point, not even about Asos, Amazon, H&M, Zara and Zalando. There is no doubt that the fast fashion trend has brought more choice and bolder designs, even for the

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faint-of-wallet, to the western world. But we have ignored the negative impact the escalating consumption of fabrics and apparel has on communities, workforces and the environment elsewhere, preferably places no-one will ever travel to for vacation. And yet, despite buying about 60 new pieces of clothing per year, the typical western consumer still feels he or she has nothing decent to wear. This is generally true especially if the individual doesn't fit

the standard body: too old, too young, too big, too petite, long arms, short legs, you get the picture. Those who prefer unisex, ethnic or modest fashion might also still be out of luck today, even in front of endless shelves of very affordable fashion at the local mall. This is an opportunity for digital printing.

## Truly Individual Clothing

Only fashion designers can make a difference today, and many of them try to do so. Early attempts to build an on-demand, high value cottage industry for fashion production started around the millennium at pioneer internet marketplaces like Ebay, Craig's List and Etsy/Dawanda. Few of these first micro-shops had professional or full-time textile designers or tailors. But they whetted the wider public's appetite for on-demand fashion and apparel. Today, designers like Richard Quinn, a Central Saint Martin's fashion graduate, are taking on-demand fashion to a higher level. In cooperation with printer manufacturer Epson, Quinn has set up his very own design and print studio in London. There, he is able to print out his colourful designs on textiles, tailoring up his on-demand fashion and smaller prêt-à-porter selections as well creating samples for industrial upscaling.



*Designer Richard Quinn printed the fabrics for his SSE18 London Fashion Week Catwalk on Epson printers. Photo: Courtesy of Liberty London*

During Quinn's 2017 cooperation with H&M, due to the massive run-length of typical fast fashion production, only sample pieces were produced in central London. For his spring/summer 2018 collection, Quinn has printed the bold patterns in his studio using Epson printers and they are available at renowned fashion hotspots like Liberty and Opening Ceremony LA. Quinn's example clearly illustrates, that designers do have many more options to make their visions come true. Not only do they have a much wider choice of online and local channels to sell their designs, but it has also

become much easier to bring to market high value individualised or small batch items.

## How Can I Become The Next Richard Quinn?

The answer is as easy as it is sobering: get an education first. To become a professional textile designer, you still have to know what you are doing. A designer who knows his or her way around fabrics, patterns, designs and sewing patterns will be able to make the most out of the creative freedom that digital printing and finishing has to offer.



*Fashion designers can order professional step-and-repeat patterns for digital and analogue fabric print at <https://www.patterndesigns.com/>. Photo: Sonja Angerer*

That said, don't try to be someone else and definitely do go wild!

Fabric design today is much easier than a few decades ago, when many limitations weighed down what textile designers could do. Step and repeat patterns, for instance, are as much a matter of tradition as a function of economics and of the technical limitations of rotary screen printing, still today's most common industrial run-length fabric printing option. As digital fabric print does not require a printing form, any design can be printed in high-quality, full-colour

and at (almost) any length. Step-and-repeat patterns are not easy to design without some serious practice, but there is help readily available, at platforms like Pattern design (<https://www.patterndesigns.com/>). This site offers a large, curated, royalty-free selection of professional, scaleable patterns for digital and analogue print.

Printing digitally on fabric has other advantages, too: small run-length, minimum order sizes and, typically, a much lower usage of water and Volatile Organic Compounds (VOCs), to name but a few.

Still, there is no point in just switching from analogue to digital in the textile printing industry. You need to work with software suitable for textile design and printing, as well as for workflow set-up and process streamlining. In part this is because the typical cost per square metre in digital fabric printing is considerably higher than analogue which benefits from economies of scale. This is not much a problem at all with couture or high value individualised items, as the material is typically only a small fraction of the price. But even if not strictly couture, a customer's appreciation of an individualised, bespoke digitally printed fashion item is usually much higher than it is for typical high street standard size fashion. This equates to a willingness to pay more for the piece.

For any project with the scope for mass production, you still might want to stick to the traditional ropes of textile printing. But for such projects easy upscaling from a digitally printed small batch to ultra-high-volume industrial analogue printing can be very rewarding. Adobe recently introduced a beta version of its Textile Designer plug-in for Photoshop to help with step and repeat creation, colorways and separations.

In traditional textile regions like Northern Italy's Como region, quite a few high-volume digital roll-to-roll fabric printer

models from companies like EFI, Konica Minolta or Zimmer Austria have been installed. The analogue to digital breaking point is highly dependent on the printing device and the project itself, but as rule of thumb, a few thousand square metres of digitally printed fabric are likely quite a bit more expensive than the analogue option.

## What Do I Need To Know About Digital Fabric Printing Technology?

There are four main textile printing segments in the market. Soft signage direct printing, mainly onto polyester-based substrates, is not typically intended for fashion and home décor, but rather for the advertising industry. The inks and fabrics used are not suitable for prolonged contact with human skin, nor are they tested for household washing machines.

Apparel decoration on a wide variety of man-made and natural fibres most commonly uses pigment inks printed direct. T-Shirts, caps and bags are common use cases and there also are a few roll-to-roll pigment printing options available. Direct or transfer sublimation print only works on polyester based substrates or fabrics with a polyester coating. The most common use of this method is in the sports goods industry, where highly functional fabrics from man-made fibres are very popular for team shirts



*Roll-to-roll textile print is available today in industrial volumes, as well as very small batches. Photo: Sonja Angerer*

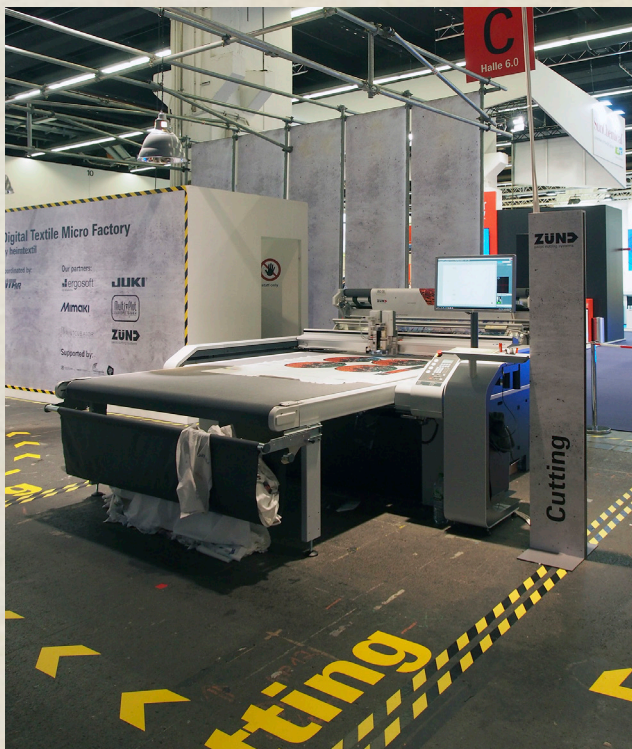
and other gear. There are many sublimation printers on the market, from Dgen to EFI, Mimaki and Mutoh, and most recently HP. Output from these machines is also used for soft signage applications, gifts and home décor. Roll to roll fabric printing on natural fibres is typically a job for a specialised fabric printer.

Specialised printing plants in Europe are most commonly found in Northern Italy and Turkey. While the print form was lost in digital, the overall production fabric print process has remained, with pre-washing, priming, steaming and washing. Textile printing with acid and reactive inks is often referred to as “textile textile” or

“real textile” printing. But regardless of the technology, digital fabric printing is more environmentally friendly than its analogue counterparts. Machines are more energy efficient, usage of inks and water much lower. When applied to an on-demand process, almost no inventory is needed, as the item is only printed when it has already been ordered and paid for. So, no end-of-season sale clearouts, but also no tonnes of unsellable clothing destroyed and burned or going to landfill either.

## Digital Finishing

In today’s digital printing industry, the print in itself is as often as not a sellable product.



*The textile printing microfactory at Heimtextil 2017. In front: digital finishing with a Zünd cutting table. Photo: Sonja Angerer*

This is even more true in the fashion and décor industry. Customers typically like to order a skirt or a cushion, not bolt of printed cotton and a sewing pattern. There are print service providers that offer fulfilment for designers. Spreadshirt for example is an option for apparel printing, while Probo Print offers interior decoration applications. Designers who would rather like to take things into their own hands, might want to follow Richard Quinn's lead and set-up their own printing studio. Manufacturers like Epson, HP, Roland, Mimaki and others offer wide format roll-to-roll textile printers for small to medium sized batched fabric print production. When printing digitally, sewing patterns

and outlines can be conveniently printed along with the design. Large format cutting tables from Zünd or other manufacturers automatically run along pre-defined cutting lines for a highly productive workflow. No manual labour and no punching tools are required, so sewing patterns are easily scaled for any customer's shape. Skilled seamstresses are in short demand in many developed countries, just as the textile industry is starting to return from Africa and Asia, where production was moved around the turn of the millennium to save on labour costs.

The new speed factories being set-up in many developed countries for high-value individualised fashion will therefore be most likely highly automated, with robots helping to make production more efficient than ever. For some years now, Heimtextil Frankfurt and Fespa Global Print Expo trade shows have been showcasing such micro factories with highly digitised design, digital printing and finishing workflows for fashion, décor and apparel products. Typical set-up costs are just a fraction of those for a huge analogue factory.

## What Does Digital Printing and Finishing Mean for a Designer?

Design is the new gold. As demand for more sustainable, highly individualised

fashion and home décor items grows, highly efficient local factories will be able to turn almost any idea into splendid reality. High-speed internet helps to set up new global channels and platforms for even the most niche products. Which is very good news for any creative mind, as they may extend their value chain from design to product. With digital fabric and apparel printing it is cheaper and easier than ever to go wild in fashion!

– **Sonja Angerer**

The Digital Dots team specialises in consulting and editorial for digital prepress, printing and publishing technologies. This includes research, testing, evaluation and content services for publishers, printers and print buyers.

This fourth Wild Format Series is the latest in a long line of educational projects for graphic arts professionals, including designers and content originators. We also publish <http://spindrift.click>, a subscriber supported premium content website with readers all over the world and a sharp focus on technology.

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