

# ***Dr Justin Marshall and Dr Katie Bunnell***

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## ***Developments in Post Industrial Manufacturing Systems and its Implications for Craft and Sustainability***

The way in which things are being made is changing. Both within individual art and craft practices and in industrial manufacturing, digital technologies are opening up new possibilities and challenging established methods, market definitions and modes of consumption. Craft practices based on an individual's control over the whole design and production process, and a focus on one-off and batch produced products, start to have an opportunity to challenge established mass production techniques. As rapid manufacturing technologies become more sophisticated and affordable, and interaction and communication through the Internet becomes more sophisticated, the possibilities for post-industrial modes of design, production and consumption will emerge.

This presentation will provide an overview of this post-industrial area by discussing a series of examples of new business models that exploit the potentials that digital design, production and networking tools provide. This will include : digitally enabled sustainable business models (e.g. Unto this last), Networked digital production services (e.g. Ponoko) and online interactive design tools (e.g. Fluid Forms, Shapeways, Nervous Systems). A focus will be given to two recent projects undertaken by Bunnell and Marshall. Autochina and Automake involved the development of interactive online design tools which allow the creation of unique and one-off designs which are then digitally manufactured. These projects involved integrating craft knowledge and digital production technologies to create a new way of designing and making works which re-figure the relationship between maker and consumer, craft and industrial production.

The significance of these new business models and ways of designing and making in relation to issues of sustainability will be highlighted (e.g. localised production, production on demand).

This new presentation will be designed to invite and develop discussion of issues concerning sustainability in relation to digital craft production with an informed and specialist group of conference delegates and speakers. From this forum event, a paper will be developed that integrates the discussion and makes suggestions for future research.