Local Motors

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Open, Micro and Local - A Case Study on Local Motors

'Local Motors' is both an oxymoron and a truism. A 'free online and physical workspace where creativity, collaboration and design drive vehicle innovations'; the designs created by Local Motors are truly global and peculiarly local all at once. The process is as follows: Designs are open-sourced; anyone can contribute to the website and be comfortable in the knowledge that their work is protected by the creative commons licence. Those designs can then be voted on. If enough votes are received the design is reviewed and put to the prototype stage. The design can then go into manufacture, in one of Local Motors microfactories, or indeed, through the 3D printing formats they are collaboratively working on. The design can then be marketed and eventually sold. Through crowd-sourcing and micro-manufacture Local Motors dramatically decreases lead times in vehicle production. So far so straight-forward. But what began as Local Motors in 2007 has been rapidly developing into various areas since, making it difficult to put your finger on what exactly Local Motors looks like now. In this case study I will explore how Local Motors' initial value propositions have developed over the last 8 years, and the possibilities for the future.

Using the crowd to speed things up is not new. Wikipedia had been going for a good seven years before Jay Rogers founded Local Motors. Rogers' ingenuity lies in pairing the technique with the automotive industry, known for its notoriously longwinded production process. By vastly increasing potential design offerings, whilst scaling down production to small batches, Local Motors operates a significantly more rapid process. According to Rogers' November 2010 TED Talk, Local Motors' online forum was at that time receiving 8000 contributions a day.

https://www.youtube.com/watch?v=xFrMl_5T0Rc

Through this platform Local Motors can essentially outsource R&D to their online community. Drawing on a tradition of Hot-Rodders and enthusiasts, Local Motors amplifies response through a plenitude of prize based innovation design competitions. Rogers describes it as 'Ikea, mashed up with Build-A-Bear, mashed up with Formula One'. The analogy is a good one. You can sense the same feeling of ownership and satisfaction in the Local Motors online forum as you can in the children leaving the Build-A-Bear store. In an increasingly hyper-capitalist context, a feeling of ownership can be sold at a premium for children and car enthusiasts alike. Local Motors trades in this excitement. Each new project uploaded onto the site is swiftly followed by a wealth of collaborative (and some predictably less so) comments. Not only is this R&D; it is both marketing and an effective loyalty scheme. Spend a little time on the Local Motors forum and its apparently oxymoronic title becomes less so; we all know that the internet is progressively making the world a little smaller, a little more local.

Internet communities operating on the shared assets of their users are increasingly commonplace. Mumsnet, Etsy, Pinterest, even scientists are starting to look to internet crowd funding websites rather than their governments for funding (more on this can be found here http://www.theguardian.com/science/2015/jan/02/crowdfunded-science-scientists-fund-research.) Users are

ever more able to learn about and contribute to manifold aspects of their lifestyle. Local Motors represents the logical progression of this circumstance, as Rogers describes, 'as we run competitions we get more meaningful gas pedals, we get meaningful pocket book holders, we get more meaningful lights to put on the roof, and we get more meaningful cars'. The essentially democratic nature of the Local Motors voting system theoretically allows designers, engineers and car enthusiasts to engage in equally formative discussion. Significantly, Rogers has connected this spirit of open innovation with the technologies that facilitate it. In September of 2014 Local Motors debuted the Strati (Italian for layers) at the International Manufacturing Technology Show. The ITMS was a platform for Local Motors to demonstrate their commitment to doing something different with the automotive industry; not only was the Strati shown at the ITMS, it was manufactured there too. The Strati can be printed in 44 hours, after which only the mechanised parts such as the battery, suspension and motor need to be fitted. Local Motors states that they aim to get this time down to 22 hours. They repeated the trick at the North American International Auto Show in January of this year, this time offering visitors a chance to test-drive the car in its mid model refresh stage.

A video of one such test drive can be viewed here: http://www.bbc.co.uk/news/business-30802723

And a time-lapse of the 3D Printing process here: https://www.youtube.com/watch?v=daioWlkH7ZI

3D printing technology fits neatly with the community-driven nature of Local Motors' crowd sourcing ideology. All the users that have collaborated on the project, indeed, even members of the community that haven't, will be able to download the digital 3D print files and build manual. Theoretically, anyone can print their own Strati at home (for those without a 3D Printer large enough, Local Motors have also produced a 1:10 scale for printing a small model).

The speed with which the Strati can be manufactured is integral to Local Motors' value proposition. As Rogers described at the NAIAS, the Strati is currently at its mid model refresh stage, a stage that is normally only reached two to three years into a car's development. It has taken only two to three months for Local Motors to get to this stage, and they hope to have the Strati available for retail by the end of the year. The whole process is part of what is being called direct digital manufacture, and is representative of the kind of micro-manufacture they are developing.

Local Motors currently has three microfactories, and hopes to build one hundred in the next ten years. These are experiments in small scale production, but they stand to prompt a significant adjustment to the way we look at car production. Each microfactory is designed to produce specific vehicles, responding to the local community and its resources. Through this deeper understanding of the locality in which the factory operates, coupled with small batch production and the vast input and collaboration of the design stage, Local Motors intends to drastically reduce lead times.

Local Motors' ability to set new paradigms for typically time-intensive manufacturing processes has prompted interest in fields other than the automotive industry. In March 2014 General Electric announced their partnership with Local Motors, working together to put in place a new model for the manufacturing industry of home appliances. Through First Build, a co-create forum much like Local Motors', General Electric encourage an online community to submit and collaborate on ideas. Those designs that are successful are then produced in a Local Motors microfactory. The First Build microfactory was opened in July 2014, as a collaboration between Local Motors, General Electric and the University of Louisville.

Local Motors is very much a future concept. Its unique value propositions are dependent on a developing understanding of how users can utilize online communities to shape their daily lives, and a small scale production method that is itself experimental. And if one needed further evidence of their specific newness, the Local Motors Rally Fighter is even featured in the new Transformers movie; a film about robots. How Local Motors will develop will remain to be seen. But the excitement surrounding their initial successes has garnered a partnership with one of the world's largest companies, and media coverage that exudes a feeling of exhilaration at the proposal of such rapid change to an industry as significant as car manufacture. By operating on such a fast scale, and maintaining a position of bold and open innovation, Local Motors are positioning themselves in good stead for the coming challenges.

You can watch Jay Rogers' TED Talk here : https://www.youtube.com/watch?v=xFrMl_5T0Rc