

A Development Perspective on the Challenges in Implementing 'Auto-Identification' of Products

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Abstract

Product tracking technology is available to big players in the value chain, giving them competitive advantages. This leaves small producers, especially those in developing economies, increasingly dependent and/or deficient. We can attempt to give the same tools to producers in developing regions to level the playing field, but results from the Fair Tracing project reveal that we cannot assume these will be useful as such.

Keywords

International development, socio-technical, networks, trade, production, consumption

ACM Classification Keywords

H5.m. Information interfaces and presentation (e.g., HCI): Miscellaneous.

Introduction

The rhetoric of networks is inclusive and enabling: joining up places, people and things [1]. However, for those operating outside the reach of a technology, the experience is not one of inclusivity. In commerce, the rules of the game are devised by big global players, so innovations cannot be ignored even if they are not available locally. Identity management, tracking and promotion of goods using Automatic Identification and Data Capture (AIDC) is one such phenomenon, offering

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UbiComp 2009, Sep 30 – Oct 3, 2009, Orlando, FL, USA

better product control for those able to harness it. But small suppliers, especially in developing economies, do not have access to the tools or the generated data, and nor do general consumers, who could also benefit.

The "Fair Tracing" project sought to promote two kinds of visibility in this context: 1) giving exposure to small producers to find direct markets for their produce; 2) showing the nature of the supply chain, the interests along it and the distribution of profit, to promote fairer trade and drive good environmental, economic and social production practices. To do so, it investigated the feasibility of a public AIDC-type tool in an appropriate Web 2.0 style for use worldwide as a distributed hub between members of value chains and consumers. Would such a system work as a tool in the field?

Barriers to Use

The project worked with two supply chains (Fair Trade wine in Chile; shade-grown coffee in India), identifying socio-technical issues that would need resolving for the tool to become useful:

- The smallest producers are operating without access to, or funding for, digital technology that makes capturing data 'automatic'.
- Collecting information to use as meta-data is a big overhead – much is not readily recorded and it brings issues of basic, media and digital literacy.
- Producers need to be able to target consumers but remote marketing experience/cultural knowledge is likely to be least available to small operators.
- Product state changes involve more steps in the chain with smaller producers, making already complex journeys more convoluted to represent.
- Power relations along the chain impact on what information producers can be seen to make public.

- Third parties are difficult to bring into the value chain, yet they are key as endorsing agencies.

Discussion

These findings suggest that far from being useful as a platform, the tool needs to take into account context and nature of goods. Lone suppliers cannot capture data and assemble it so that a chain emerges, unless they are very well-equipped and the product is a simple one over which they have considerable control. Social and financial structures to support product tracking would be an essential precursor to any data-sharing activity. To meet Fair Tracing's goals, intermediaries to help populate, and possibly federate, this type of system [3] would be needed. We can witness social forces in action in the Karnataka coffee industry following its encounter with Fair Tracing, where state-backed discussions to introduce tracing have begun [2]. RFID is one vision, bio-tagging another, but, in that economy, implementation may mean workers enter strings of numbers all day to attach codes to batches of coffee. So even making producers aware they are being left behind can be a force for change, as the Indian case study shows. Then it is a question of local economics and, also, of local priorities and values.

References

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