EXPLORING THE SOCIO-ECONOMIC STRUCTURES OF INTERNET-ENABLED DEVELOPMENT: 
A STUDY OF GRASSROOTS NETREPRENEURS IN CHINA

Chrisanthi Avgerou  
London School of Economics  
UK  
c.avgerou@lse.ac.uk

Boyi Li  
London School of Economics  
UK  
b.li2@lse.ac.uk

Angeliki Poulymenakou  
Athens University of E-Business  
Greece  
akp@aueb.gr

ABSTRACT
There is increasing interest in the potential of internet platforms for networking and collaboration - often referred to as web 2.0 - to open up unprecedented prospects for individuals to come together and engage in economic and political activities, bypassing and indeed subverting the corporate structures of the market economy and state control. The prevailing discourse on this technology-driven transformative potential focuses on networks of individuals interacting through technology tools with little, if at all, attention to the social context that gives rise and sustains their networked economic or political activities. In this paper we study the social embeddedness of the empowering potential of internet-enabled economic activity. We present and discuss a case of intense entrepreneurial activity in a Chinese community, engaging in e-commerce trading conducted on a platform of internet tools. Our analysis of this case juxtaposes the emerging views on web2.0 business activities with views drawn from a long established literature on entrepreneurship as a networked activity. We found that internet-based entrepreneurial activity at this case of grassroots development enacts online social networking mechanisms of peer-to-peer and vendor-customer interactions and heavily depends on a corporate service provider, as well as the historically developed community infrastructure for commerce. Overall, our research explores whether economic activity enabled by web 2.0 is an individualistic phenomenon, or it relies on institutional bearings and if so what is their nature.

Keywords: netrepreneurs, internet, development, Yiwu, China

1. INTRODUCTION
Research interest in the developmental potential of internet-enabled socio-economic action is well justified. Thomson sketches the emerging opportunities and challenges framing web 2.0 as ‘a paradigm for technology-enabled social life comprising diversity, collaboration, and multiple truths’ and proposes the concept ‘development 2.0’ to refer to an ICT-enabled mode of participatory development (Thompson 2008). Congruently, Heeks wrote about ICT4D 2.0 as a distinct phase in the use of digital technologies for development which has a demand-driven focus ‘…[ICT4D] 2.0 designs around the poor’s specific resources, capacities, and demands’ (Heeks 2008, p.32).

In this paper we focus on the economic potential of the internet in developing countries, aiming to explore what form internet-enabled grassroots economic activity might take. Empirically, we are interested in tracing evidence showing how the poor manage ‘to create new incomes and jobs’ by engaging in internet enabled business (Heeks 2008, p.29). Theoretically, we set out to understand the conditions of possibility of internet-enabled initiatives for income generation in particular socio-economic contexts, thus hoping to understand the agency/structure articulations of internet-enabled economic development.

The literature on web 2.0 celebrates the internet for the power it affords to individual initiative to create new models of delivering services that depart from the proprietary logic
appropriate for products (O'Reilly 2005; O'Reilly 2007). It is argued that the intrinsically centre-less network architecture of the internet enables citizens’ voluntary participation in collaborative production of information services and opens possibilities for a more democratic polity. Some have taken these ideas further, suggesting that individual initiative in an environment of peer to peer collaboration is a new mode of creating wealth, departing from the mechanisms of both ‘for profit’ market transactions and contract based employment (Benkler 2002). Thus, the internet has been linked with a libertarian ideology, which is suspicious of government and the industrial structures of advanced economies and sees the use of internet technology platforms as the triumph of individuals’ agency, transcending the constraints of the major socio-economic institutions of late modernity, namely the state and the corporation (Benkler 2006).

Bearing promise for citizen empowerment to curb the abusive bureaucratic state by creating information channels that are not controlled by government authorities, it is easy to see the relevance of internet-enabled networking for socio-political reform in developing countries. It is less obvious how a platform for individual initiative and peer to peer collaboration may generate economic growth in poor communities. The iconic examples of open source software production, Wikipedia, and online social networking that are used in the literature that celebrates the new potential of the internet as a platform for production and economic activity seem quite remote from the conditions of poor communities in developing countries. In these examples, individual initiative and collaborative interaction occur in conditions of abundance, utilizing readily available surplus computer power and relying on volunteered action that does not seek to secure an income. Moreover, despite the anti-corporation ideology of the most vocal web 2.0 advocates, this socio-economic paradigm has fostered and relies upon some of the biggest corporations of our time, including Google and Facebook, which generate their income as advertising channels for all other industries. We find it difficult to see the developmental exemplars of the internet in the quintessential peer-to-peer social collaboration models of the advanced economies.

Instead, our research drew initial clues for the way internet platforms of economic activity and social collaboration may create economic development in the research fields of entrepreneurship and regional development (Eckhart and Shane 2003; Feldman and Francis 2005; Rocha 2004). A rich literature on regional development has established the significance of social collaboration, elaborated on the forms collaboration in economic activity can take and addressed questions concerning the fostering of entrepreneurship. In such literature we found a more convincing logic of the role of the internet in creating new income and jobs, as a platform of interaction of entrepreneurs with customers, multiple service providers, and other entrepreneurs – whether suppliers or competitors. Consequently we sought to find relevant case studies in on going regional development initiatives on Chinese provinces. We studied entrepreneurs who launched and are conducting their business on web 2.0 platforms. We refer to them as ‘netrepreneurs’, a term that we found widely used in China and has been already in existence in the international literature without nevertheless a clear definition (Lowery et al. 1998). In Wikipedia netrepreneur is defined as ‘an entrepreneur that applies innovation to create new businesses on the Internet’. Indicative of the ambiguous and flux state of terminology is that two terms are used to describe such actors, ‘netpreneur’ and ‘netrepreneur’. We opted for the latter as it is more widely adopted and acknowledged.

---

1 Such examples challenge the libertarian claims of web2.0 political economy, and give rise to critiques of increased corporatization of online social networks, see for example Pascu, C., Osmo, D., Ulbrich, M., Turlea, G., and Burgelman, J.C. “The potential disruptive impact of internet 2 base technologies” in: First Monday, 2007.

2 Entrepreneurship is defined as the start of new businesses, or the revitalization of existing ones and their expansion into new markets, often through new technology.
Our paper is structured as follows: In the next section we outline relevant literature on web2.0 and entrepreneurship and draw better informed theoretical assumptions on the articulation of individual entrepreneurial agency and contextual enablers. Then we present a case study of a cluster of internet based entrepreneurial activity in a Chinese city. Our narrative focuses on and unfolds around two individual netrepreneurs, tracing their business partners, service providers, supporting institutions. The analysis of this case identifies the web2.0 features and institutional bearings of these netrepreneurs and, finally, in the conclusions we form claims about the conditions of possibility for achieving development through internet enabled business initiatives. In a nutshell, our study provides evidence of effective mobilization of resources through web 2.0 platforms on the internet by the poor to create modest incomes through electronic micro-trading. But in addition to the internet enabling technologies, the Chinese netrepreneurs of our study are supported by social networking with other netrepreneurs in the same locality, built on a historically developed tradition of trade, and rely on the services of a giant corporation. In this case at least, the internet-enabled route to economic development does not break free from, but relies on existing local institutions and corporate services.

2. INTERNET ENABLED ENTREPRENEURSHIP

Web 2.0 is a term hard to define. It is “about ideas, behaviours, technologies and ideals, all at the same time” (Allen 2008). Web 2.0 encompasses tools on internet based platforms enabling users to set up applications for content creation and publishing, communication, networking, and collaboration. These multi-technology platforms enable users to develop content and further applications for personal, social as well as business purposes. As the range of technologies continues to develop, a rhetoric is also unfolding around the economic opportunities offered (O'Reilly 2007; Tapscott and Williams 2010), emphasizing collective intelligence, crowdsourcing, peer-to-peer collaboration and online social networking.

However the literature remains unclear about the way in which emerging platforms of internet tools contribute to business activity. We know little about the conditions under which such business generating opportunities are realized. The web 2.0 network concept is technology driven and places emphasis on the individual. Part of the discourse emphasizes the liberating effect of collaborating through these technologies from restricting institutions, such as intellectual property rights, and has an anti-business-for-profit flavour (Benkler 2006). Another part of the discourse heralds new business creation and entrepreneurial opportunities through networking, suggesting a range of opportunities for start-ups. Corporations are encouraged to leverage employee collaboration and establish new ways to connect to their markets and collect intelligence from customers and the public at large as internet user (Brown 2010).

The actors involved in internet-enabled peer-to-peer activities tend to be portrayed as disembedded individuals, and their involvement in production activities as disassociated from any institutional structures. To some extent this is what advocates of web2.0 see as the source of its developmental potential: internet based platforms of collaboration allow individuals to participate in networks of sustained economic or political action, such as the production of information goods and mobilization for common causes, bypassing the restrictions of dysfunctional institutions and the lack of infrastructure (such as transport, banking, etc), characterising developing countries.

However, attention on internet-enabled economic activity is not new, and it was not always portrayed as socially disembedded. Some questions that need to be asked are: Does web 2.0 development differ from earlier models of network economic activity? Is it geographically disembedded? Does it by-pass the major economic development of institutions of modernity, namely the corporation and the state?
Castells in the ‘90s argued at length about the merits of the networked economy that is enabled by the internet, and positioned it within the post-industrial socio-economic logic. He illustrated via multiple examples that globe-wide networking was already under way (Castells 1996). But Castells’ notion of networked economic activity encompassed the institutional embeddedness of collaborating individuals. To a large extent his view on the significance of networking drew from a well established stream of research on industrial and post-industrial socio-economic analysis, which sought to explain the business and entrepreneurial activity in terms of collective economic rationality and institutional bearings. Such institutional bearings have historically been formed in geographic concentrations of business firms, and a great deal of research on entrepreneurship is concerned with the regional and spatial characteristics that enable and sustain it (Feldman and Francis 2005; Rocha 2004; Uzzi 1997).

The question why enterprises tend to locate in proximate places have been studied by economists and other social scientists for over a century. Researchers from different social science disciplines are trying to uncover the factors and mechanisms that are responsible for the development of industrial clusters. Three basic types of industrial clustering have been highlighted, each sustained by its own socio-economic structures. The first type is the ‘Marshallian’ district, which is a concentration of a large number of related industries in proximate places, in order to maximize sales and minimize the cost of production (Asheim 2000). In this type, enterprises tend to locate close to the biggest target market, in order to save transportation costs. They also cluster together to benefit from proximity to labour markets, economies of scale, the degree of division of labour and specialisation between enterprises, and knowledge and skill spillover possibilities.

The second type is the so-called ‘new industrial district’, which is an industrial region of small and medium-sized enterprises (SMEs), collaborating with each other and specialising in market niches. The main feature of such industrial districts is its collective flexibility. Because SMEs are specialising in different areas of production with different skills, the industrial district has the flexibility to re-organize its production and cope with market uncertainties. Thus the new industrial district type was seen to be the answer to the crisis of mass production industrial organization (Cooke and Morgan 1994; Piore and Sabel 1984).

With the rise of technology and knowledge-intensive industries, industrial cluster studies identified a third type of clustering concerning industries for which knowledge is the main factor of production (Saxenian 1994). This industrial clustering occurs in order to achieve “increasing returns” on knowledge for enterprises producing knowledge-intensive high technology products and thus requiring innovation capability. The mechanisms that attract and keep enterprises located in the same place are mainly knowledge spillover effects and flows of human capital. The literature of national system of innovation (Lundvall 1992) and regional systems of innovations (Asheim and Gertler 2005) emphasizes the importance of having knowledge institutions, such as universities, research labs, and innovative enterprises in the same regions, in order to facilitate the knowledge flows. Within the knowledge focused industrial regions, inter-firm collaborative relations aim at sharing cost, sharing knowledge and spreading the risks of innovations.

Economic factors are not the only reasons that make enterprises network and cluster. Social community, history and culture also play important roles in the development of industrial clusters. Industrial regions are communities of people and populations of firms in naturally and historically bounded areas (Becattini 1990). Within such communities of people and population of firms, the systems of values and rules are acting as the glue that holds people and firms together in a regional industrial network (Kumar et al. 1998). So, for instance, the studies of Italy’s Emilia-Romagna regions have shown the influence of the
strong socialist values that give rise to various associations and cooperatives in the region (Cooke and Morgan 1994).

This brief juxtaposition of the currently circulating views on the potential of emerging internet tools for new business models of collaborative economic activity with established understanding about the fostering of networked entrepreneurship that highlights social embeddedness within geographic regions shapes the question that we will address with the case of the following section, as follows. What is the economic logic that sustains the business activities of the internet-enabled individual entrepreneurs and what kind of network (i.e. the individuals, organizations, and institutions they interrelate with) do they form and rely upon?

3. **RESEARCH METHOD**

3.1 **Identification of Case Study – Preliminary Research**

As the previous sections indicate, our research is of an exploratory nature, dealing with an emergent phenomenon. The web 2.0 phenomenon itself has no clear definitions or features yet. The challenge for us was the tendency to present this as the result of individualistic behaviour. In contrast to this discourse, our research started with the assumption that all economic activity is socially embedded and thus we sought to identify relevant institutional bearings. The features that qualify the case of our empirical study as a web 2.0 driven activity, were determined as the study unfolded. Theoretically, the industrial clustering literature acted as a sensitising device rather than a source of specific features that we sought to verify.

We identified the case study that we present in this paper, the netrepreneurs of Yiwu city, during a study of the major Chinese e-business service provider Alibaba and its e-commerce company, Taobao. Interviewees in Taobao brought to our attention the concentration of individuals in this city who successfully make a living from online commerce. The Chinese author firstly met netrepreneurs from Yiwu in 2009 in one of Taobao conferences in Hangzhou. In that conference, he was introduced to netrepreneurs by Taobao staff and interviewed them. He then went for a field trip to Yiwu accompanied by a Taobao customer service specialists who facilitated his initial introduction and acquaintance to the local community. During that trip the researcher stayed in the city of Yiwu for a week and had fifteen interviews with netrepreneurs of several different sectors, ranging from manufacturers, distributors, business service suppliers and government officials. He also conducted day long observations of the business operations of the netrepreneurs through both online and offline communications.

3.2 **Constructing Case Narratives**

After reading the case description produced from this data collection, all three authors went to Yiwu in June 2010 and visited a selected sample of netrepreneurs identified from the first round and suppliers at their places. This second visit served two purposes. First it gave the two non-Chinese authors a better understanding of the case than by reading its description. Although our interviewees did not speak English and we continued to rely on the Chinese author for translation, sharing observations was very important for deriving common interpretation of the cases study. Second, during this visit we sought to clarify aspects of the case that remained unclear and to probe further into the business making circumstances of our interviewees. To that end, in addition to the formal interview sessions at their business places we gained valuable insights by talking informally with a group of netrepreneurs over lunch and coffee and while walking in the city. We visited also service providers catering netrepreneurs and the local college which offers relevant training courses.
Our analysis aimed at identifying the characteristics of the way individuals were doing business over the internet platform and the organizational and institutional context that supported such business. Thus, we traced the business activities of the netrepreneurs and the technology tools they used to conduct them. We then traced the virtual and face-to-face relations that constituted their business network - including relations with customers, service providers, suppliers. One actor in this network, the electronic tools platform provider, stood out as most significant and we focused our analysis to understand the emerging entrepreneurial model.

4. NETREPRENEURS OF YIWU - CASE DESCRIPTION

Yiwu City has a population of about 1.2 million and is located in central Zhejiang Province, about 100 km south of the provincial capital, Hangzhou. A Chinese reporter described his impressions from his first visit to the QingYanLiu neighborhood of Yiwu in 2009 as follows:

11:00 am, November 3rd: I walked on the streets of this netrepreneur village and it was strangely quiet. I spotted a few offices that looked like internet start-ups or commodity trade companies. The whole village seemed to be still asleep, except for a few noises made by the neighbouring highway traffic. What made it even stranger was that most of the street restaurants were closed. Local people told me that these restaurants are running good business but they only open in the evenings.

17:30 pm, November 3rd: I came back to the same street in the late afternoon and found that the whole village was getting busy. Thousands of young men and women suddenly came out of the buildings, opening the doors of underground warehouses, and starting to package merchandise. Then all streets were filled with the noises of ripping tapes and packaging boxes.

20:00 pm, November 3rd: After two hours of packaging, the streets were filled with a long queue of trucks, sent by the logistics companies to pick up boxes and deliver these them to various destinations. One of the staff told me that all the underground spaces are used as warehouses by internet-shops, and all the internet-shop staff did was to fill in the delivery forms and attach a copy on the packaged box which then waited to be picked up by the logistics company. After eight o’clock, the village streets were filled with people who just got off work and were rushing into restaurants for dinner.

(Zhe Zhong Xin Bao, Central Zhejiang Info, November 5th, 2009)

4.1 Two Personal Stories

Pan sells trinkets for mobile phones on the web. Her austere one bedroom flat in Yang Liu neighbourhood of Yiwu serves also as storage space for her stock, and also as her office. Her only piece of equipment is her laptop which is placed on a base to prevent it from overheating. Pam offers miniature plastic dolls to hang from your mobile, in multiple colours for 2.50 CNY. When we met her, she was also busy selling-off a batch of crystal-like plastic trinkets (again for mobiles) for 68 CNY. These products still featured a well known pharmaceutical brand tag and as she explains she has located and bought them cheaply on the net as surplus from promotional ware. Her flagship product, however, is an ultraviolet light activated mobile phone trinket which as she explains is very popular with young club-going customers. She proudly explains that she is currently the only merchant in Taobao, an e-commerce platform for micro-business, part of China’s giant internet service provider AliBaba, selling this particular type of trinket and for this reason she has ‘watermarked’ the photos of these products on her site with the brand of her Taobao shop. Hundreds of these
items are scattered around her living space in boxes and she seems very optimistic about selling them all. A newer addition to her product selection is a batch of alien-looking Barbie style dolls which she says are the basis of her export trade to Singapore and Japan. This is Business on a shoe-string: with a total stock of about 50 US dollars, an infrastructure comprising a Chinese made laptop and a free-of charge range of business services from Taobao, and an income of no more than a few dollars a day.

While we were having our chat, her laptop’s screen was buzzing with pop-up windows from the Taobao chat channel. Prospective customers were trying to reach her with questions about her products and existing customers have questions about their order. Other windows were communications from the Taobao operation such as notifications about her scheduled e-learning courses on Taobao features and functionality.

Pan has been in business for less than a year and she seems quite happy with her progress. She does not seem to have any particular product strategy; she rather opportunistically relies on finding whatever seems probable to sell well, although she clearly focuses on cheap, ‘girly’ stuff. Apart from doing her own research for products (largely on the web), she has also another readily available product sourcing option. The local netrepreneur supermarket. It is a shop full of cheap products rather difficult to classify under a general heading. Shelves are overflowing with plastic toys, flip-flops, head phones, plastic keyholders with thermometers, pouches for mobiles, computer speakers, toilet brushes, carton storage boxes, and hundreds of such like types of objects. Netrepreneurs come here to buy these items which they then sell through their online Taobao shops. They save on the effort and cost of finding products, negotiating with suppliers, ordering and receiving the goods. They can also browse the product assortment online on www.92pifa.com.

Lin, now in her early thirties is another entrepreneur. She left Yiwu after secondary school to study in Shanghai and developed an interest in health food, natural ingredients and substances used in traditional medicine and cosmetics. She did some research on recipes and manufactures of products from natural ingredients, particularly cosmetics, and she located a source of such products in Thailand. Then she had the idea of setting up an online shop to sell such products and she came back to Yiwu to develop her business. She solicited the help of a professional graphic designer to set up her site on Taobao and started trading.

She has been running her Taobao based shop from her sparsely furnished one bedroom flat in Yiwu for more than three years, employing an assistant and relying on the help of her boyfriend. She rents storage space for the goods she sells in the basement of the same block of flats (approx. 100 sq.m). The bulk of her trade is currently cosmetics, while she is continuously exploring other product lines – currently she is testing a brand of instant coffee blend from Sumatra which she believes has good prospects in the Chinese market.

Lin maintains contact with her customers through Taobao communication tools, mainly the instant messaging and chat services. Customers (particularly prospective customers) may also contact her via email. She uses AliPay, a Taobao service to handle the credit card and bank payments she receives from her customers. AliPay acts as the guarantor of payments and does not release them to sellers until buyers confirm receipt of the goods they ordered. On the marketing side, she can make use of a sophisticated array of online visibility, promotion, and reputation tools to promote her online Taobao shop. She pays Taobao a fee to have advertisements displayed to Taobao visitors who search for products similar to the ones she is selling. Advertising space in Taobao is auctioned to netpreuners who also need to demonstrate a certain level of commercial activity in order to keep it.

Her reputation in Taobao is critical for attracting customers. Taobao has 450 million products on sale and 70 million registered users (sellers) and runs a customer rating service for online shops based on a number of criteria, such as whether the netrepreneur pays a fee (multiple fees available), whether the site occupies un-auctioned keywords (popular
keywords are auctioned in Taobao; price paid determines the order of appearance in a customer search), and whether the netentrepreneurs make frequent edits (updates) to their page. Building a reputation in Taobao has developed into a professional service in its own right. The streets of Yiwu are littered with makeshift noticeboards displaying hundreds of handwritten notices from people who offer to help netentrepreneurs improve their online reputation.

4.2 Doing Online Business in Yiwu
Lin and Pan, as all other people we interviewed in Yiwu, place emphasis on the ‘commercial culture’ in this area. This culture currently seems to play an important role in providing the conditions in which a network of services necessary for Yiwu’s netentrepreneurs is spawned. While Lin receives orders for goods online and Taobao acts as a trusted intermediary for the financial part of the transaction, she makes use of a number of additional services available in Yiwu to fulfill customer orders.

For example, she buys packaging materials from the many small businesses specializing on this in Yiwu. The owner of one of these shops explained to us that hers is a third generation family business which traditionally served local manufacturers’ packaging needs. They have now shifted their attention towards serving netentrepreneurs. She has expanded the selection of sizes and specifications in the carton boxes she sells (down to packages no bigger than a box of matches), and introduced materials suitable for mail order dispatches. Local netentrepreneurs may pick up their orders in person, while she also offers dispatch service on bicycle. Usually netentrepreneur orders for packaging materials are more frequent and lower volume compared to those of manufactures and she has adjusted the services she offers accordingly.

In the same vein, netentrepreneurs like Lin and Pan have an ample selection of postal service companies to choose from. These small businesses have appeared, multiplied and grown in tandem with the number of netentrepreneurs active in the city. Many of them offer only local delivery service on their own, and collaborate with larger post and logistics service providers to deliver goods to distant destinations. Similar to packaging material providers, postal service companies have tailored their services to the needs of netentrepreneurs’ logistics. Many of these small businesses have only netentrepreneurs as their customers.

The netentrepreneurs of Yiwu find much of the merchandise they sell in a massive compound at the edge of the city that is host to more than sixteen thousand wholesale businesses selling all manner of consumer goods from cutlery to ornaments, from fabrics to toys, and from equipment to alimentary products. This wholesale market, one of the largest commodity markets of China, has been there for a long time, well established in both national and international trade – Arabian and Russian (not English though) feature widely in local restaurant menus.

Many of the Yiwu netentrepreneurs were trained in a local college which specializes in business and commerce education, offering courses and specializations on all topics that would normally comprise a business administration curriculum, including a sizeable portfolio of business computing topics. The college offers extensive training options on netpreneurship skills including hands on experience on AliBaba and Taobao platforms. In essence, young locals may start as students and graduate as netentrepreneurs with their own start-up running.

Students are encouraged to look for potential products to sell both on- and off-line. In many cases, products sold on students’ Taobao-based retail sites come from merchants selling wholesale on AliBaba’s platform. These businesses, while not willing or capable to set up an online retail operation themselves, welcome the opportunity to have one maintained by independent netentrepreneurs such as Yiwu College students. In the case of consumer goods
ordered online from AliBaba’s wholesale shops, AliBaba logistics deliver the goods to the College’s premises.

At present, everything in this community of entrepreneurs is in small monetary numbers: the value of stock, the prices of products traded, the cost of services, the earnings. Yet, the unambiguous message emerging from the stakeholders is that this secures their livelihood, and an optimism that it is leading to growth.

5. **Case Analysis**

In the entrepreneurial businesses that we studied, the network is the platform\(^3\) for doing business. The whole spectrum of business activities is structured by the services provided by the Taobao platform. The netrepreneurs are heavily relying on front-end tools for interaction with their customers, marketing purposes and back-office support. The experience of doing business for Yiwu netrepreneurs is shaped by the technology tools provided by the platform. It is a shortcut to acquiring relevant skills and competences.

Customer communication tools, such as messaging, email, VoIP, are integrated with the transactional side of the customer relation. During our interviews in their business places the netrepreneurs repeatedly interrupted our conversations to deal with a continuous flow of customer queries on delivery details, features of products and price negotiations. Research on e-commerce service providers in China confirms the significance of this functionality of the Taobao platform. The capacities provided for communication with the customer and negotiation, and the heavy use made of these services has been a major advantage of the Taobao platform compared to eBay, its main competitor from 2003 till 2006 (Chen et al. 2007; Li and Li 2008; Ou and Devison 2009).

The importance of Taobao in the creation of these micro-entrepreneurs cannot be overemphasized. Not only it provides a range of services for conducting C2C e-commerce, such as a rating mechanism, advertising, financial transactions, but it organizes and sponsors online and off line community building activities (Chen et al. 2007). We found manifestations of the community building activities of Taobao in the e-business association and the Yiwu college.

The e-business association was originally a self-organized body, set up by local netrepreneurs, but currently Taobao has taken over its development, administration, regulation and governance. Lin is an active, founding member of the Yiwu e-business association. Joining the association means getting access to producers and products, but also to a social network of local netrepreneurs and through them to expertise on a range of netrepreneurship related skills and experience. Lin maintains an array of on and off-line connections with other local netrepreneurs through meetings, the organization of counselling sessions and seminars, as well as the participation in discussion boards, online communities and blogs, all hosted within the Taobao infrastructure. Indicatively, her business card features the e-business association logo.

Taobao supports the e-commerce Yiwu College and maintains regular contact with the teachers. It has given an official vote of approval to their training courses, and named the College the ‘top college in terms of good value for their offering’. Appreciation is mutual; the college principal that we interviewed relayed the teachers’ view that Taobao offers a ‘good platform for training students’. The picture of the entrepreneur par excellence, Taobao and AliBaba creator, Jack Ma on the walls of the local college serves as a constant reminder of the aims as well as the potential of such entrepreneurial activity.

---

\(^3\) The ‘network as a platform’ to achieve new business models is frequently used expression in web2.0 literature, see O'Reilly, T. "What is Web2.0: Design patterns and business models for the next generation of software" *Communications and Strategy* (65:1st quarter) 2007, pp 17-37.
Overall, Taobao as a social networking platform constructs a netrepreneur identity, creates a sense of belonging, promotes role models and values associated with success, and cultivates desirable netrepreneurs profiles by prizes and publicity for particularly successful netrepreneurs.

5.1 Spatial and Institutional Embeddedness of the Yiwu Netrepreneurs
Netrepreneurs in Yiwu are co-located with a range of businesses providing services to them (Ding 2009). Several logistics and postal and packaging services compete for their custom. Freelance designers emerge to provide help with the set-up of the interface of the netrepreneurs site and improvement of the online rating of their business. The commodity market offers unlimited sourcing opportunities for merchandise to be re-sold electronically. In addition to this huge market, corner shops and minimarkets sell products that netrepreneurs re-sell electronically so that they do not need to maintain their own inventories. The knowledge spill-over effect of the college is also important. The college provides a large number of internet savvy and entrepreneurially inclined young people, acting as an incubator for netrepreneurs as many of which emerge from their studies with their own business up and running.

Perhaps more importantly, the netrepreneurs of Yiwu are a continuation of a culture of commerce that has old historical roots, survived the maoist regime and revived in the era of the country’s economic liberalization. Moreover, the Yiwu case is not an exception in contemporary China. On the contrary, it is part of an energetic capitalist development which celebrates private initiative and the creation of wealth. This is sustained by an attitude of consumerism in the country which creates demand for all manner of products, thus providing ample opportunity for intermediary traders, such as the netrepreneurs of our case (Cui and Liu 2001; Li 2010).

6. Conclusions
The case of Yiwu netrepreneurs demonstrates that web 2.0 technologies, services and ideas may coalesce to create income for the poor in developing regions. Our objective in this research was to understand the socio-technical character of such business activity and the conditions that make it possible for individuals to launch and sustain a business on an internet platform.

In the case we studied the internet is indeed a central actor for networked entrepreneurial activity. It provides an accessible (both financially and in terms of easiness of use) communication medium and is the source of multiple tools for running an enterprise. Compatible with the web 2.0 ideas, the software and information that the netrepreneurs use to run their business are provided as a service, and mostly free of charge or at a very low fee, not as purchased products. But what is the industrial model that makes it possible individuals with no capital resources and minimal training to engage in commerce and generate an income?

The netrepreneurs of Yiwu cannot be easily classified in the existing models of clustering of entrepreneurship and industrial activity. Although they benefit from, and feed into, the business development of locally available suppliers and services, they lack many important characteristics of the industrial district categories. They do not make a Marshallian district because they are not co-located with their major service provider or with their customers; they are not producers, like the cases of flexible specialization of the ‘new industrial districts’, and tend to source the products mainly from local wholesalers; and they are not a high-tech district driven by technology innovation, although they rely on the high-tech platform of a service provider. The main difference from the industrial districts identified in the literature is that important parts of their business relations are virtual. The
community they belong to is only partly local, created by spatial co-presence. It is to a large extent virtual, maintained by the geographically remote, yet ubiquitous, corporate actor of Taobao.

Also, this is not a model of a libertarian model of individuals exploiting the business making potential of internet technologies solely on their own ingenuity. As our case description and analysis show, the netrepreneurs of Yiwu rely heavily on the services of a corporate service provider and are supported by off line collaboration in a tradition of risk taking in trade, a culture of sharing, and a government provided infrastructure for a commercial city. Our research does not disprove claims for the capacity of web2.0 platforms to empower individuals to break free from corporate structures and local community support. The heroic individual entrepreneur who exploits the potential of the internet and the business facilities available through the cyberspace remains a possibility, as they have always been and studied in the literature of entrepreneurship. Nevertheless, our study suggests that there is scope for income generation through internet enabled entrepreneurial activity in developing countries for rather ordinary individuals, if their ingenuity, initiative, risk taking and learning are supported by off line trusted networks of collaboration and reliable online business support services.

We reached the conclusion that the most important enabler of this promising exemplar of internet based economic activity of the poor is a web 2.0 type corporate actor. The e-commerce services provider, AliBaba, is itself a rather recent entrepreneurial creation, which stemmed from the conditions of economic growth of China and closely linked with the government’s active economic policy. The internet does bear developmental potential, it is becoming increasingly accessible, and can be creatively exploited through human agency directed to the improvement of life conditions, as the Yiwu netrepreneurs do. But to think about developmental transformation as the direct outcome of the encounter of poor people with the internet is a misleading simplification. The institutional actors of the non-electronic era continue to play important roles for the elimination of poverty.

7. REFERENCES


