



## *The Development Potential of the Virtual Economy*

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## Summary

In Shenzhen, China, amid the sweatshops making printed circuit boards or cheap T-shirts, there is a new type of business growing up where teenage boys engage in “goldfarming” by selling experience (XP) and power-leveling services for *World of Warcraft* gaming characters to clients in the Republic of Korea. In the Philippines, musicians earn extra income by creating polyphonic ringtones of popular tunes for sale to mobile phone owners in Germany. In Mexico, game players are creating digital artefacts that can be sold for Linden Dollars to *Second Life* avatars in the USA, and then converted into real dollars.

*Gold farming presents two things. First, a current model for earning money via an Internet-connected PC. Second, an example of a possible future model in which Internet-connected workers in developing countries produce a wide range of virtual goods and services. For both these reasons, the ICT4D field should be taking a keen interest in gold farming.*

Richard Heeks (2008) “Current analysis and future research agenda on goldfarming”

These are all examples of the growing virtual economy of products and services that only have an existence within the electronic world of games and devices and which offer opportunities to trade spare time for additional income. But how large is the virtual economy? Does it represent short-term opportunism on the fringes of legality? Or is it the harbinger of a much larger future digital economy that will create new opportunities for development and entrepreneurship? Is there a viable business model for ICT for development programmes here?

## Purpose and objectives

In the development of the global digital economy, which has been spurred by the mass market development of the internet and mobile phones, the first colonization came from the transfer of products and services that have long enjoyed an analogue life onto the new digital media. Music, books, newspapers, gambling, pornography and air-tickets were among the first businesses to find a new life online. In some cases, the online version of these products and services now far outweighs the offline version by value. But this development arguably just displaces an existing business model and does not necessarily create new wealth.

There is therefore great interest in the development of a more recent phenomenon in the digital economy, namely products and services exist *only* in cyberspace and have no analogue equivalent, but which can be traded anywhere in the world. The examples cited above – goldfarming, polyphonic ringtones and digital artefacts – are part of a rapidly growing virtual economy. For instance, goldfarming, or the real-world sale of virtual goods and services produced in online games, is estimated to have a global value of between US\$500 million to US\$1 billion and to create employment (or at least a second income) for up to 400’000 gamers<sup>1</sup>. Similarly, in December 2008, *Second Life* reported some one million ‘residents’ who had logged in within the last month and around 60’000 registered businesses with a positive cash flow. The value of Linden Dollars exchanged for US Dollars was around US\$100 million in the first eleven months of 2008.

There are good reasons to believe that the virtual economy has great potential for development, as shown in the quote from Richard Heeks. This is because the virtual economy:

<sup>1</sup> This estimate is from Heeks, Richard (2008) “Current analysis and future research agenda on goldfarming”, Development Informatics Working Paper Series #32, available at: [http://www.sed.manchester.ac.uk/idpm/research/publications/wp/di/di\\_wp32.htm](http://www.sed.manchester.ac.uk/idpm/research/publications/wp/di/di_wp32.htm).

- Provides an almost frictionless match between supply in the form of “spare time” in developing countries with demand in the form of “disposable income” in developed countries;
- Has low barriers to entry that are becoming even lower as the price of a PC, a mobile phone and a broadband internet connection continues to fall;
- Offers employment opportunities that typically appeal to young males, who comprise a group characterized by high levels of unemployment and underemployment in many developing countries;
- Is characterized by high levels of creativity, innovation and entrepreneurship, with flexible working patterns, and which demands rapid response to fast-changing variations in demand;
- Encourages small firms, self-employment and opportunism, and is not yet affected greatly by the big-business intermediation which cuts into the difference between the selling price in developing countries and the buying price in developed ones.
- Has high growth potential.

This research-based study of the development potential of the virtual economy will attempt to map the current size of the virtual economies, with a specific focus on the developing world and, through a research-by-doing approach, will investigate the scope for entrepreneurship through infoDev’s network of business incubators.

## Project description

This project has three main components:

- A systematic attempt to define the virtual economy and to measure its size and growth rate through the commissioning of a **knowledge map**. The study will examine the available literature on this topic and will segment in more detail the different strands of the virtual economy that seem to have the greatest growth potential. In particular, the knowledge map will look at emerging trends in the virtual economy, changing perceptions of what is legal and ethical and the sustainability of new business models.
- Based on this initial study, and employing the resources of infoDev’s network of more than 150 business incubators in 70 countries, the second phase of the research project will engage in an effort to **identify and grow new businesses** that are exploiting the virtual economy in developing countries. This second phase will be based on participatory research and will, in particular, look at the extent to which business models developed in one part of the world (e.g., goldfarming in China) can be replicated and scaled up elsewhere.
- The third phase, based on **research dissemination**, will use virtual economy tools – such as *wikis* and user-generated content – to gather more information on the scope of the virtual economy, to document best practice, and to present research findings. It will also create a public debate on the legality and the long-term value for development purposes of the virtual economy.

## Indicative Budget

Depending upon the level of funding and the interest among the donor community, the following indicative budget, in US\$, could be proposed for this activity during the three year period 2009-2011.

Item	Duration	Location	Cost
1. Initial scoping study (in 2009) followed by commissioning of knowledge map on the virtual economy.	2009-2010	Global, but with a focus on East Asia	US\$120'000
2. Efforts to identify and grow new businesses through <i>infoDev</i> 's incubator network	2010-2011	Three country pilots (proposed India, Philippines and Ghana)	US\$60'000 per pilot plus US\$40'000 centralized costs – US\$220'000
3. Research dissemination using virtual economy tools	2011	Global	US\$60'000
<b>Total Cost</b>	<b>2009-2011</b>	<b>Global</b>	<b>US\$400'000 over three years</b>

## Project principal partners (if applicable)

Phases 1 and 3 will be primarily undertaken with academic partners including the Development Informatics Group at the University of Manchester, United Kingdom and the Hong Kong University of Science and Technology (HKUST). Phase 2 of the project will be undertaken in conjunction with the *infoDev* network of business incubators, in particular the Asian and African regional networks and the business incubators in India (TeNeT, IIT, Chennai), Philippines (Ayala Foundation, Quezon City) and Ghana (BusyInternet Ghana Ltd, Accra.)

## Key risks to implementation and sustainability

The main risk to this project comes from changing business practices that can, at a stroke, outlaw or promote the virtual economy according to evolving perceptions of what is legal and ethical. Researching this business sector implies working alongside hackers and gamers operating on the fringes of business. To offset this danger, the first stage knowledge map will survey the current legal situation regarding the virtual economy to establish safe business practices. A second risk comes from the devaluation of in-game currency which has been experienced by many online games and which can deflate even the best-prepared business model. To offset this danger, multi-sectoral models will be developed, with risks shared.