

Online "Gold Farming": *Developing-Country Production for Virtual Gameworlds*

Gold farming is the production of virtual goods and services for players of online games. It consists of real-world sales of in-game currency and items, and of "high-level" game characters. These are created by "playbourers": workers employed to play in-game, whose output is sold for real money through various web sites: so-called "real-money trading".

In basic terms, gold-farming is a sizeable developing country phenomenon. The best guesses for 2008 are that 400,000 gold farmers earning an average US\$145 per month produced a global market worth US\$500m; but we could easily more than double the latter to over US\$1bn¹. There are probably 5-10m global consumers of gold farming services. The main uncertainty of estimation relates to the gold-farming market in East Asia, which appears much larger than that in the US/EU. That uncertainty in part arises because gold farming operates at four levels – local, national, regional and global. We should encompass all four but, to date, the focus has been almost entirely on the global trade.

The "pre-history" of gold farming dates from the 1980s, and we can structure it in terms of capitalist development, starting with "subsistence" production and moving through barter, commoditisation and monetisation until we reach the type of petty commodity production found at the turn of the 21st century. Gold farming proper then started in earnest in 2001-2002 but really took off in 2003-2004. We can likewise structure this as a move from petty to capitalist commodity production involving wage labour, automation, and globalisation/offshoring, particularly to Asia.

An estimated 80-85% of gold farming takes place in China, probably mainly in the urban areas of coastal provinces due to the presence of local gamers, ICT infrastructure, and overseas connections. It has also taken place in Mexico, Romania, Russia, and Indonesia for global trade; and India, Malaysia and the Philippines for local/national trade. It probably helps reduce unemployment and poverty, and improve national balance of trade and income equity. It may help reduce crime and may provide a model for telecentre and cybercafé financial sustainability.

Gold farming seems to represent an efficient use of capital in job-creation terms (estimated at less than US\$800 per job), with wages representing at most 50% of revenue. The main jobs created are those of the in-game "playbourers" who are predominantly male and 18-25 years old, pushed into the sector by the lack of alternative employment. Most are paid on a piecework or quota basis but with food and accommodation thrown in. Most work 12-hour shifts, 7 days per week and can be considered semi-skilled or skilled labour.

How we view this depends on the benchmark. Pay and conditions are poor by Western standards but as good or better than the alternatives that gold farmers face: in wage, in work content, and in other ways. We may not know how gold farmers' careers progress but we can say that most enjoy their work and that the oft-applied "virtual sweatshop" label is at best partial and at worst inappropriate.

The entrepreneurs (almost all men) who start up gold farms are pulled into the sub-sector by some mix of existing game- and/or gold-farming-knowledge plus the lure of profits. They have created tens of thousands of enterprises that are, in many ways, typical of developing countries – they are principally micro-enterprises employing less than 10 staff, and they are informally-financed. However, they are likely more entrepreneurial than the norm – more likely to grow, less likely to require government intervention, and more likely to survive. They might even build their internal technological capabilities and develop into higher-level game industry or IT sector enterprises.

In all but the smallest firms, gold farmers work alongside managers, researchers, technical support and customer relations staff. The presence of such staff and web sales portals creates fixed and/or indivisible costs that provide some basis for scale economies. The apparent lack of domination by medium- and large-scale firms means, though, there must also be scale diseconomies, such as the costs of "being noticed" by government and game companies. These two stakeholders – alongside ICT suppliers, fansites and regular players – sit outside the main value chain, which consists of gold farmers, gold-farming firms, brokers/exchanges (not present for all sales), and the player-buyers.

The sub-sector has taken off because a demand with more money than time met a supply with more time than money. Until roughly 2006, a lot of this took place via brokers and there was both the potential and reality of super-profits. From mid-2005 to mid-2008, however, in-game currencies devalued an average 75% against the US dollar. The continuing survival of the sub-sector probably relies on a disappearance of those super-profits, increased productivity, and disintermediation so that many firms now sell direct to consumers. As a result of these plus new entrants and the anti-gold-farming actions of game companies, power within the gold-farming value chain has in recent years become more dispersed, and has shifted somewhat away from brokers and somewhat towards game companies.

Continuing survival of the sub-sector also relies on overcoming some severe information failures – absence, uncertainty, asymmetry, and communication problems. These have produced many examples of both opportunism and adverse selection, with trading bringing uncertainty, risk and negative consequences. As expected, these seem likely to have suppressed real-money trading well below its "natural" level, and to have induced sellers into (potentially-hollow) assertions about their trustworthiness. Because of its virtuality, though, real-money trading has seen only a little of the localisation and intermediation one might otherwise expect in the presence of such information failures.

Thirdly, continuing survival of gold farming relies on dealing with the many threats it faces. Some of these are business-generic such as ease of entry intensifying competition, or rising labour costs. Others are business-specific but just a low-level

nuisance such as character killing by other players, or account and IP banning by game companies, or fraud. Others still – game redesign and marketing channel blocks – require constant innovation to stay one step ahead. And a final category is much more serious such as game company substitution (where the companies themselves start to sell items or high-level characters) or legal action by the companies or by governments. Game companies probably take such action through a mix of economic, moral and personal in-game experience rationales. But one must recognise that gold farming brings benefits to these companies, while action against gold farming brings both anticipated and perhaps unanticipated costs.

Perception outranks reality in the discourse on gold farming, and – at least in the West – those perceptions have been largely negative, serving to homogenise, alienise, criminalise and moralise about gold farmers. That this has happened despite counter-evidence supports the idea that racial stereotypes and views about immigrant labour are remapped into cyberspace. It also supports the structuralist argument that institutional forces in the real world are reproduced in new, virtual fields like gold farming. There is some contra-flow, suggesting the sub-sector's virtuality has produced new outcomes; for example in relation to intermediaries. While this falls short of an argument that technology has transformed social structures and behaviours, it means the mix of technology, structure and agency is unpredictable, and one we must keep researching.

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ⁱ Heeks, R.B. (2008) *Current Analysis and Future Research Agenda on "Gold Farming": Real-World Production in Developing Countries for the Virtual Economies of Online Games*, Development Informatics Working Paper no.32, IDPM, University of Manchester, UK
<http://www.sed.manchester.ac.uk/idpm/research/publications/wp/di/index.htm>