

Digital Micro Entrepreneurship a Preliminary Analysis — Case Studies from the Gig Economy

Ross A. Malaga

(Feliciano School of Business, Montclair State University, USA)

Abstract: Freelance workers are responsible for a large share of the economy. However, most are limited by the amount of time they can personally work. In certain fields new software and other digital tools allow freelancers to provide services (gigs) in an automated fashion. Many of the gigs that would take hours or even days to complete can now be accomplished in minutes. This paper posits that freelancers who use these tool have become something new-digital micro entrepreneurs. Using specific cases from sites like Fiverr and UpWork, this paper tries to understand this new phenomenon.

Key words: entrepreneurship; freelance; search engine optimization; micro entrepreneur

JEL codes: J21, J24, J46, M13

1. Introduction

According to a recent article in Forbes (Puri, 2014) approximately 42 million Americans (about 1/3 of the US workforce) are freelancers. In addition, the number of freelancers is expected to grow to about half of the US workforce by 2020.

The freelance economy is supported by various online freelance markets, such as Elance, Guru, oDesk (now Upwork), Live Ninja, Craigslist, and Fiverr. Freelancers on these sites generally work on per hour or per project basis. According to CNBC, the average hourly rate earned by freelancers on oDesk/Upwork and Elance is about \$25. And the rate can be much higher for more technical projects (called gigs in the freelance world) (Pofeldt, 2014). These rates compare favorably to the \$25.09 average hourly wage for all workers in the US, as of August 2015 (Bureau of Labor Statistics, 2015).

Freelancers, by definition, bid on specific projects and work on per project or hourly basis. As they work for themselves, their earnings potential is limited to the number of hours they can personally work.

This research explores the rise of a new type of freelancer — the digital micro entrepreneur. These freelancers make use of digital technologies to quickly complete gigs — often in a matter of minutes — to expand their earnings. This paper focuses on digital micro entrepreneurs in the search engine optimization (SEO) market. This market was chosen due to the large amount of time it normally takes to complete tasks, the excellent digital tools available to automate many aspects of SEO, and the number of online freelance sites available for SEO

Ross A. Malaga, Professor of Information Technology & Entrepreneurship, Feliciano School of Business, Montclair State University; research areas/interests: entrepreneurship, equity crowdfunding, SEO, and online teaching and learning. E-mail: malagar@mail.montclair.edu.

professionals. The following sections will describe digital micro entrepreneurship, explain the approach used in this research, examine a number of cases, and draw conclusions.

2. Background

Kao (1993) famously defined an entrepreneur as, “a person who undertakes a wealth-creating and value adding process, through incubating ideas, assembling resources and making things happen”. So, should freelancers be considered entrepreneurs? Kazi et al. (2014) discussed the differences between a freelancer and an entrepreneur. They define a freelancer as a person who is self employed and bid for temporary jobs or projects. In contrast they define an entrepreneur as somebody who, “owns a small business, uses his business idea, hire individuals’ skills, and buy product from others; to sell for profit into a market segment (p. 5)”.

Van Den Born & Van Witteloostuijn (2013) take a more balanced view of the freelancer vs entrepreneur definition. They state that, “freelancers can be considered as a hybrid of employees and entrepreneurs (p. 3).” They note that freelancers are similar to employees in that they are typically hired by large firms to employ their professional knowledge for a set period of time as opposed to entrepreneurs who sell tangible products to customers. But they also go on to state that freelancers, “are entrepreneurs because they work for their own risk and reward without any organizational guarantee or support (p. 3).”

Many freelancers in the SEO market can be considered entrepreneurs in that they; (1) work for themselves without any organizational support, and (2) use their knowledge for wealth creation and adding value.

3. Background — Search Engine Optimization

Digital micro entrepreneurs differ from typical freelancers in that they utilize various software products to automate the work and quickly perform technology related gigs. Due to the software available, many of these gigs fall into the area of online marketing. Gigs in this category include things like; search engine optimization (SEO) link building, getting fans or likes to a social media page or site, and sending traffic to various Web properties.

A search engine, such as Google, is a Web-based system consisting of; a database of Web pages, software (called a spider) for finding new Web pages and entering (indexing) them into the database, and a way to search the database.

Users of a search engine enter a keyword or key phrase and the search engine returns a list of relevant results — called the search engine results page (SERP). The list of results and their order are based on hundreds (maybe thousands) of factors. These factors are considered a trade secret by the search engines and are changed from time to time.

According to Curran (2004), “search engine optimization is the process of improving a website’s position so that the webpage comes up higher in the search results [search engine results page (SERP)] of major search engines” (p. 202).

In general, the process of SEO can be broken into four main steps: (1) keyword research, (2) on-site optimization, (3) link building, and (4) indexing.

3.1 Keyword Research

The first step in a SEO campaign is to determine which keywords (or phrases) the Website in question should rank for in the search engines. In order to accomplish this a SEO professional will typically generate a large list of words and phrases related to the site and determine how many people are searching on that word each month.

Google makes these statistics available as part of its AdWords advertising platform.

Once the list of keywords has been generated the next step is to determine the level of competition for each of them. This can be done manually by entering the word or phrases into the search engine. The major search engines (Google and Bing) provide the number of results returned — which is the number of competing sites for that search.

Optimizers typically use the results to search (R/S) ratio to quickly compare keywords. On the R/S scale lower numbers (more people searching and less competition) are better.

In order to compare keyword competition, optimizers determine the results to search (R/S) ratio. The R/S ratio is calculated by simply dividing the number results (competitors) by the number of searches over a given period of time. On this scale lower numbers are better.

An optimizer might also consider other factors when choosing a keyword to optimize, such as the terms commercial viability (how likely will the term lead to a sale) and the quality of the competition (are there big name companies dominating the search results).

Keyword research can be done manually. This entails gathering data from various Web sites and typically entering that data into a spreadsheet. As keyword lists can run to hundred or even thousands of entries this process can become extremely time consuming. The digital tools available for keyword research allow the user to enter seed keyword and other criteria in order to quickly generate a list of potential keywords for SEO purposes. For example, a user might enter a keyword “widget” and only want to see results that have 200 searches per month. The results might include keywords like “blue widget”, “best widget”, “widget reviews”, etc. The results can be sorted and exported.

3.2 On-site Optimization

On-site optimization is the process of changing a Website in order to improve its position in the SERPs. These changes can range from adding to changing the actual content on the site to behind the scenes changes — such as title tag, meta description, and HTML elements. As this process is done manually and cannot be easily automated it is not appropriate for digital micro-entrepreneurship.

3.3 Link Building

A recent survey of SEO industry professionals (<https://moz.com/search-ranking-factors>) indicates that links to a Website from other sites are the largest factor in determine where a Website will rank in the SERPs. This is not surprising as these types of links (called back links) have played a major factor in the development and growth of Google and are now used in all of the major search engines. Google does not just consider the number of links, but also the “quality” of those links. Google assigns each page in its index a PageRank (PR). PR measure’s a web page’s importance and is one of the many factors that Google uses to determine where a web page appears in its search results. Google places more weight on back links that came from higher PageRank sites.

Exactly how PageRank is currently calculated is a closely held secret. However, the basic concepts are detailed in the original PageRank formula patent (U.S. Patent 6,285,999). Each page provides a portion of its PageRank to each page it links to. So, from a SEO perspective a business owner promoting a website wants to establish incoming links from sites with a high PR. In addition, it is beneficial to obtain links from pages that have fewer outgoing links.

In recent years the concept of link building has changed to keep up with changes in the search engines. Today, social media plays a role in search engine rankings. As such a SEO professional might be called upon to develop social media accounts, post content, and gain followers.

The process of link building is typically very time consuming and there are many opinions on the “right way” to do it. However, a popular method for quickly building links is to use Web 2.0 and social media sites (where an optimizer can create a Webpage for free) and link them to the target site or the next level sites from these. Building out these sites requires generating accounts (setting up new e-mail addresses, entering user information, and dealing with CAPTCHA requests), creating and posting content, and keeping track of all of the sites and links. In addition, all of these sites need to be indexed (see below). The digital tools available for link building can handle all of these aspects (from account generation right through indexing). One link that might take an hour to build, can now be done in minutes (even seconds).

3.4 Indexing

Indexing is the process of attracting the search engine’s spider software to a site. The spider “crawls” through a site and adds all of the pages it finds to the search engine’s database. Part of this process entails determining what the site is about so that the site can be listed in relevant SERPs.

Indexing can be accomplished in many ways, but two of the most widely used are submission of a sitemap and getting links to the Website from other sites that are frequently visited by the spider software.

A sitemap is simply a file that provides a structured list of all of the pages on a Website. This file can be submitted to the search engines, informing them that a new site is available for indexing. The sitemap makes it easier for the search engine as it lists all of the pages — instead of the spider having to crawl through the site. However, even when a sitemap file is submitted to the search engines it might take some time before the spider software will crawl the site. In addition, all of the backlinks to a site need to be indexed as well.

Some of the methods SEO professionals use to force the search engines to index their site and, more importantly, their backlinks include pinging, RSS feeds, social bookmarking, and social media. Keeping track of all of these methods and which have been used on specific backlinks or a main Website can be time consuming and confusing. Most of the digital tools used for indexing take care of all of the complexity behind the scenes.

4. SEO Digital Tools

The digital tools (software and services) available in the SEO industry can significantly reduce the amount of work required in 3 of the 4 SEO steps — keyword research, indexing, and link building. These digital tools can be divided into two categories — traditional software and Web-based software (software as a service). In turn, the software category can be divided into software that is based on a monthly subscription model and those products that have a one-time purchase.

In addition, there are companies that provide a suite of SEO software via a virtual private server (VPS). The VPS serves as a virtual desktop with the applicable SEO software already installed. The user pays for access to the virtual desktop on a monthly basis. However, because the software comes bundled it is often far more cost effective than purchasing each software product (or monthly account).

The various models are important to digital micro entrepreneurs in that they require various levels of computing power. For example, a digital micro entrepreneur in a developing country who only has a smart phone can still enter the SEO marketplace by using Web-based software or a virtual desktop account.

Table 1 details some of the digital tools available for SEO. It should be noted that this table is not exhaustive but is meant to show the variety of tools available in each category, using various purchase and usage methods and price points.

Table 1 SEO Digital Tools

SEO Step Supported	Digital Tool	Usage Model	Cost
Keyword Research	Long Tail Pro (longtailpro.com)	One time fee Run on local computer	\$97
Keyword Research	Keyword Revealer (keywordrevealer.com)	Monthly fee Web-based	\$29.97/month
Keyword Research	Market Samurai (marketsamurai.com)	One time fee Run on local computer	\$149
Link Building	SE Nuke (senuke.com)	Monthly fee Run on local computer	\$147/month
Link Building	Xrumer (botmasterlabs.net/)	One time fee Run on local computer	\$350 (standard version)
Link Building	GSA (search-engine-ranker.gsa-online.de/)	One time fee Run on local computer	\$99
Link Building	Scrapebox (scrapebox.com)	One time fee Run on local computer	\$97
Indexing	Instant Link Indexer (instantlinkindexer.com)	Monthly Web-based	\$13.77/month for 500 daily links
Indexing	Speed Links (speed-links.net)	Monthly Web-based	\$9.99/month for 500 daily links
Indexing	One Hour Indexing (onehourindexing.co)	Monthly Web-based	\$17/month for 1000 daily links
Indexing	GSA Indexer (seo-indexer.gsa-online.de)	One time fee Run on local computer	\$20

One VPS solution is bhsvps.com. It offers packages ranging from \$40 to \$60 per month. Each package comes with various software products, such as SE Nuke, preinstalled. The more expensive packages contain more software. In addition, each package includes the ability to break CAPTCHA (those wavy letters and numbers that prove a human is using the site). This is an important feature in that SEO software products might create hundreds or even thousands of accounts on various sites.

5. Research Approach

According to Benbasat et al. (1987) the case study methodology is appropriate when, “research and theory are at their early, formative stages.” In addition, Benbasat et al. (1987) provided three reasons for using a case study. First, a case study should be used when it is difficult to examine the phenomenon of interest outside of its natural setting. This is clearly the case with this research as the interactions of interest occur entirely online. Second, the case approach is appropriate when it is important to focus on contemporary events. The data gathered and analyzed in this paper represents a snapshot of activities and is therefore contemporary. Third, the case study method should be used when there is no established theoretical base in the field of inquiry. The idea of digital micro entrepreneurship is in its infancy. While some general theories of entrepreneurship might apply, it is too early to make that determination. Therefore, all of the reasons for using the case study methodology exist in this instance.

6. Cases

The goal of this case analysis is to begin to understand if and how digital micro entrepreneurs are using SEO tools in their business. In order to accomplish this specific cases are reviewed from the gig sites Fiverr (fiverr.com), SEO Clerks (seoclerks.com), and UpWork (upwork.com). As link building (which also includes

indexing the links created) is typically the most time consuming aspect of SEO it was chosen as the focus for these cases. The authors contacted the gig providers to inquire into their use of digital tools in those cases where it was not explicitly stated. The gig providers either did not respond or did not directly answer the question.

6.1 Fiverr

The idea behind Fiverr is that the freelancers on the site will do work starting at \$5. The site categorizes its gigs into major areas, such as; Graphics & Design, Online Marketing, Writing and Translation, and Music & Audio among others. Therefore the site is general and not specifically focused on SEO work. However, in the Online Marketing category there are sub-categories for Keyword Research, SEO, and Bookmarking and Links.

Since link building is the area of interest the Bookmarking and Links sub-category was chosen. In there the highest rated gig is “I will add your site to 800 SEO social bookmarks high quality backlinks, rss, ping for \$5” from the provider known as Crorkservice¹. Clearly building 800 social bookmarks (social bookmarks are entries on sites like StumbleUpon, Digg, and Delicious) cannot be accomplished in a reasonable amount of time without digital tools. However, with a tool like SE Nuke the task of building 800 social bookmarks can be done in less than 5 minutes (assuming the software has already been setup correctly). We can tell that this particular gig uses digital tools because the service provider added an advertisement and link to his manual link building service at the end of the description — “Want to get Package with FULL Manual Submission? Check our new Unique Booster — <https://www.fiverr.com/s2/cf2fe59411>”.

We can get more information about Crorkservice by clicking in his profile link (<https://www.fiverr.com/crorkservice>). Once there we can see that he has about 30 gigs and many of them also have additional options. We can also see that Crorkservice has been active on the site since July 2011 and has served over 160K gigs in that time. That’s over 100 gigs per day (assuming no holidays). Even at the lowest rate per gig (which is \$4 as the site takes a \$1 commission) this provider has earned a minimum of \$640,000 over the past 4 years. This far exceeds the average earning in Moldavia and in most countries².

Other top rated sellers in the link building sub-category have similar (although not quite as good) results. For example, YoungCeasar (<https://www.fiverr.com/youngceasar>) has been active on the site since Sept. 2012 and has about 40K reviews (the number of actual gigs is likely much higher). Alex_Rumer has been on the site since July 2011 and has over 5K reviews. Mkmedia (<https://www.fiverr.com/mkmedia>) specializes in adult content back links and has over 10K reviews since July 2010.

6.2 SEO Clerks

The name alone, SEO Clerks, is a giveaway that the site is entirely focused on SEO related gigs. Therefore the categories reveal a greater depth of SEO work. For example, some of the categories include; account creation, link pyramids, forum posts, and social bookmarks. The site also has specific categories for SE Nuke and Xrumer. Like Fiverr the gigs on SEO Clerks are usually fixed fee.

Looking at the SE Nuke category reveals that the user “southsidesmoka” (data retrieved on Sept. 1, 2015) has 4 gigs listed including the one with the most views. A look at this user’s forum profile (<https://www.seoclerks.com/forum/members/southsidesmoka.57789/>) shows he is a 35 year old male from Columbia, SC. This SEO provider has 11 gigs listed, over 100K views of his gigs, and 246 positive ratings. SEO Clerks only shows the number of views for a gig and not the number of orders. However, as a user can sort by

¹ <https://www.fiverr.com/crorkservice/add-your-site-to-1001-social-bookmarks-high-quality-backlinks-rss-ing>.

² https://en.wikipedia.org/wiki/List_of_European_countries_by_average_wage.

total orders the site must keep track of this data behind the scenes. In addition, the provider lists a Website for professional SEO services (<http://cyber-seo.net/>) in his profile. It is not clear whether he is using his SEO Clerks gigs to jumpstart or supplement a more formal SEO consultancy.

The geographic profile of many of the providers of SE Nuke services on SEO Clerks follows that of Fiverr. That is, with the notable exception of “southsidesmoka”, most come from developing countries such as Bangladesh, Indonesia, and Egypt.

6.3 Upwork

Freelancers on Upwork typically charge by the hour, but can enter into fixed fee deals. The Upwork Website includes categories that are more professional in nature, such as Web, Mobile, and Software Development, Data Science and Analytics, Engineering and Architecture, and Legal. SEO is listed as a sub-category in Sales and Marketing. A review of the profiles listed in the SEO sub-category reveals that many so not list SEO in their profile’s title. The prevailing titles are focused more on Web development. Therefore a search of the site was done using the term “link building”.

Again the geographic profile of the providers was similar — with many coming from India, the Phillipines, and Bangladesh. Many of the freelancers, especially those from India, are listed as “Agency Contractors”. This means they work for an agency who facilitates the work and takes a cut of the freelancer’s fee. Upwork shows all of the gigs a freelancer has worked on. In the link building category many of the freelancers have not had a gig in the past year. In addition, most of the freelancers appear to have fewer than 10 gigs total (usually over a period of 3 or more years).

7. Analysis and Discussion

What, if anything, can be learned from these link building gigs? First, all of the providers in the link building area are almost certainly using digital tools. For obvious reasons most of them do not advertise the fact they are using such tools. However, some explicitly state they are doing so. For example see https://www.fiverr.com/alex_rumer/provide-over-20000-live-seo-blog-comment-backlinks-improve-your-link-building — in the description the provider states that this is a Scrapebox blast. On SEO Clerks there are even sub-categories for specific tools. It is these tools that allow the digital micro entrepreneur to handle a large number of gigs as compared with those areas that do not have digital tools available.

Second, many of these providers live in parts of the world (Moldavia, Bulgaria, Philippines, Indonesia, etc.) where the money made from these gigs exceeds (sometimes by far) the average salary. So, what entrepreneurial intentions are at work here? Are these truly digital micro entrepreneurs looking to jumpstart a lasting business? Or are they merely freelancers out to supplement a primary income or just make some extra money while they can?

Third, what role can digital micro entrepreneurs and the use of digital tools in general play in encouraging business startup and growth in the developing world. Most of the providers of link building services are geographically in developing countries. As has already been discussed some of these providers are able to earn far more than the average salary in their home country. Do these digital micro entrepreneurs use this money to further grow their business — perhaps hiring staff?

The concept of digital micro entrepreneurship is clearly at a very early stage and many additional questions will evolve over time. The next steps in understanding this phenomenon include gather more and better data. This may be accomplished by working with sites such as Fiverr or SEO Clerks. In addition, in order to understand the

entrepreneurial intentions of the freelancers on these sites survey data is likely required.

References

- Benbasat I., Goldstein D. K. and Mead M. (1987). "The case research strategy in studies of information systems", *MIS Quarterly*, pp. 369-386.
- Born A. and Witteloostuijn A. (2013). "Drivers of freelance career success", *Journal of Organizational Behavior*, Vol. 34, No. 1, pp. 24-46.
- Bureau of Labor Statistics (2015). "Average hourly and weekly earnings of all employees on private nonfarm payrolls by industry sector, seasonally adjusted", accessed on Sept. 5, 2015, available online at: <http://www.bls.gov/news.release/empsit.t19.htm>.
- Curran K. (2004). "Tips for achieving high positioning in the results pages of the major search engines", *Information Technology Journal*, Vol. 3, No. 2, pp. 202-205.
- Kao R. W. Y. (1993). "Defining entrepreneurship: Past, present and?", *Creativity and Innovation Management*, Vol. 2, pp. 69-70, doi: 10.1111/j.1467-8691.1993.tb00073.x.
- Kazi A. G., Yusoff R. M., Khan A. and Kazi S. (2014). "The freelancer: A conceptual review", *Sains Humanika*, Vol. 2, No. 3.
- Pofeldt E. (2014). "Obama: Is the job of the future a freelance one?", *CNBC*, raccessed on Sept. 1, 2015, available online at: <http://www.cnbc.com/2014/01/29/obama-is-the-job-of-the-future-a-freelance-one.html>.
- Puri R. (2014). "Why the new freelance economy is great for your small business", *Forbes*, accessed Sept. 1, 2015, available online at: <http://www.forbes.com/sites/sage/2014/02/11/why-the-new-freelance-economy-is-great-for-your-small-business/>.