

EARNING REVENUE THROUGH GOOGLE ADSENSE ON WEBSITES: A PROSPECT FOR ENTREPRENEURIAL AVENUE FOR LIBRARY AND INFORMATION SCIENCE PROFESSIONALS

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ABSTRACT

The purpose of the paper is to make Library and Information Science professionals aware of the opportunity created by the Internet and to motivate them to think of becoming an entrepreneur, at least by those who are unable to secure any job in the subject. It aims to bring to the surface the hidden earning data and information from websites which are otherwise hard for the general public to find and explore. To do all this, a content-rich website is created using Google Classic Sites and then 3 display and 1 link ad units of advertisement are inserted in between the content of each page of the website through Google AdSense. The tracking code of Google Analytics is also inserted into each and every page to know its level of use. Later on, after eleven years of launching the site, careful and systematic implementation of Google AdSense, the data from Google AdSense and Google Analytics is collected and analyzed to draw conclusions. The result shows that a website with monthly page views of 344331 can generate around \$307 by using Google AdSense on their website. From this data, it can be evident that Google AdSense can be a good source of revenue to earn a livelihood at the pace of one's choice of place of work and time. The earnings will again increase provided there is an increase in the users of the website. Library and Information Science graduates and post-graduates can explore this opportunity provided by the Internet to earn their livelihood on their own by launching a website or app of their choice and can think beyond working in the traditional library set-up, and choose to be an entrepreneur. Excluding Google AdSense, there are other alternative solutions through which people can earn revenue by displaying different kinds of advertisements on their websites, all of which are not explored.

Keywords: *Entrepreneurship, Revenue Generation, Library Website Revenue, Income Generation from Website, Google AdSense, Google Analytics, Librarian and Internet.*

1. Introduction

It is common knowledge that in most cases people hesitate to disclose their income and earnings and when it is related to online earnings it becomes harder to get the proper figure. There are many factors that contribute to it, but not limited to the hesitation of people in disclosing their earnings, the relation of tax with income, fear of disclosure of their own tactics for achieving the same, legal implications including taxation,

competition with peers in the niche of their website and such others. Even Section 11 of Google AdSense Online Terms of Service clearly mentioned that the advertisers cannot disclose their click-through rates, though they can disclose the amount of Google's gross payments. Therefore, though there is tremendous growth in the online income-generating avenues and crores of people earning a decent amount, one will be confined to very limited data, information and published papers in this area.

Techno-savvy Library and Information Science (LIS) professionals are aware of these new opportunities for libraries and librarians opened by the Internet. As evident from the widespread use of Google AdSense by the LIS professionals, they also know that they can earn a very good amount by just uploading a video over YouTube or writing a blog post that becomes viral or has a huge reader base. However, data that can estimate the income based on the number of hits or users of web content is hard to find and still remains in the dark for the people who are not exposed to it on their own.

Google AdSense is an advertisement program through which website owners can display text ads, display ads, in-feed ads, in-article ads, matched content ads, link unit ads and such other ads on the website they own or manage and earn revenue from it. "In 2003, Google launched its AdSense contextual ad program and then greatly expanded AdSense, meaning ad serving application. AdSense placements are almost certainly the reason why Google has seen network-derived ad revenue rise so sharply" (Runge, 2014, p. 781). Google's explosive growth and profits are largely based on Google AdSense shares with the content providers who agree to display their ads. In the online environment for people at large, Google AdSense is synonymous with online income.

Google Analytics is a web analytics service which tracks and reports website traffic that includes things such as session duration, pages per session, bounce rate, source of traffic, etc.

2. Review of Literature

Though the Internet is flooded with blog posts on revenue generation using Google AdSense, there are a very small number of research articles in this area. This is because people who are outside this domain cannot have access to this kind of data, and for those people who are associated with all these, for

them, publishing this kind of information is a very delicate and sometimes risky issue. It can lead to their Google AdSense account suspension, which will bring an end to their livelihood for the rest of their lives and can bring more competition in the niche in which they are working by revealing their own areas.

Chen and Chen (2010) in their "EC 2.0: Can you get profit by writing a blog? An empirical study in Google AdSense" found that E-Commerce sites can generate revenue through Google AdSense. Adler and Dewi (2019) in their article on web-based business opportunities opined that in the new Internet environment, users can generate revenue by becoming a YouTuber in the form of Google AdSense payments, brand ambassadors, sponsorship and by getting corporate collaboration. Aimiwu et al. (2012) in their study on "How web search and social media affect Google AdSense performance", found that social capital through social media can increase online revenue through Google AdSense for conventional websites. Fox et al. (2009), in their study on optimizing presentation of AdSense ads within blogs, found that AdSense offered financial rewards to bloggers with relatively little effort. Higher contrast coloured ads are likely to increase click and thereby more revenue generation to the blogger. So, there is no doubt that Google AdSense can be used to earn money online.

Soegoto and Semesta (2018) in their article on "Use of Google AdSense for income generating activity" found that their implementation of Google AdSense on YouTube Channel earned more than US \$ 1000 in a single month, i.e. April 1-31, 2017.

In the case of India, LIS Links (<http://www.lislinks.com>), LIS Quiz (<https://www.lisquiz.com>), LIS Portal (<http://lisportal.com>), LIS Cafe (<https://www.liscafe.com>), LIS News (<https://www.lisnews.in>), YouthGrowth (<https://youthgrowth.in>), etc., are some of the website launched by Library and Information Science professionals. As evident from the ads that

appear on the website, all these websites use Google AdSense to monetize their content. However, it is not evident how much amount they are earning through Google AdSense as there is not any literature on this area, neither does the owner of these websites reveal anything regarding their earnings.

The amount which is reflected in the article by Soegoto and Semesta seems to be lucrative enough to motivate the unemployed, under-employed and even employed Library and Information Science professionals to take up the option opened by the Internet. However, all these papers are unable to present the data regarding what amount of page views or traffic or users are needed to earn what amount, so that even before going for it, people can have an estimate of earning that they can think of.

3. Objectives of the Study

The objectives of the study are to

- a) Make people aware by way of describing the terminologies used in the context of Google AdSense;
- b) Launch a website so that Google AdSense Ads and Google Analytics can be set up on it to have the required data;
- c) Analyze the Google AdSense earning data to find the relation between the number of hits or users of a website and the earnings from it.
- d) Draw conclusions regarding entrepreneurship opportunities for LIS professionals in this field.

4. Methods

A website regarding the University Grants Commission (UGC) National Eligibility Test (NET) examination was designed and developed using free Google's Classic Sites and it was mapped with a custom domain purchase from Google Domains. The UGC is a statutory organization established by the union

government of India. UGC-NET is a test conducted twice in a year to determine the eligibility for teaching positions at the entry level in colleges and universities in India and also for awarding a Junior Research Fellowship (JRF) among the appearing or master degree awarded students. The website basically provides the UGC NET syllabus, old examination question papers and answer keys to the user that can be accessed openly i.e. without any restriction of user id and password or payment wall. By going through the Settings tab, the Google Analytics code was inserted and was later on placed by the system on each and every page of the website. The website as a whole has almost 1000 pages of content. To avoid lifetime account suspension from Google AdSense and to avoid keyword competition from other website owners of the same niche and bringing new competition from the upcoming readers of this article, the website address cannot be disclosed.

Google Sites, presently known as Google Classic Sites, is a wiki-based platform that can be used to design and develop a free hosted website; however, users need to purchase a domain if they want to map their Google sites address with a custom domain. The Google site was initially launched on February 28, 2008. In June 2016, Google introduced a new version of the Google Sites and named it as New Google Sites and thus the older version automatically became the Google Classic Sites.

4.1. Description of the Terminologies Associated with Google AdSense

There are lots of terminologies which are new to a large number of Library and Information Science (LIS) professionals. However, are widely used in the context of Google AdSense. A description of such a few terminologies is given below.

- i) Ad Unit: An ad unit is one or more advertisements displayed as a result of a single piece of the ad code.

- ii) **Display Ads:** Display ads are graphical ads that can contain any piece of information related to the advertisement. In the case of display ads, it competes with the text ads to appear in the same ad space and in the race the highest bidder wins. So, choosing display ads instead of text ads can have an added advantage in earning more.
- iii) **In-feed Ads:** In-feeds do not mean a RSS feed. However, it means a list that appears in a similar looking block. An ad unit inside a list of such similar looking blocks of content is called in-feed ads.
- iv) **In-article Ads:** In-article ads are displayed inside the content-rich article and are responsive in nature.
- v) **Matched Content:** Matched content presents a personalized recommendation to the readers for further reading based on topic similarity and among them a few relevant ads are shown.
- vi) **Link Unit:** A link unit is an advertisement slot where it displays a list of topics relevant to the content of the site. In the event of clicking on one of these topics, the users are brought to a Google page that displays ads related to that topic. The user again needs to click on the advertisement to generate revenue for the website developer or owner. The owner won't receive earnings for clicks on the topics but they will be paid in the event of user clicks on any of the ads displayed on the Google-hosted page.
- vii) **Fixed-sized Ads:** Fixed-sized ad units have a fixed height and width irrespective of whether it is viewed on a desktop computer or a mobile phone.
- viii) **Responsive Ads:** Responsive ads are those ads that automatically adapt the size of the ads to fit the space available or page layout or change the screen orientation, i.e. from portrait to landscape on a phone or tablet. It allows the website administrator to support a wide range of devices, i.e., computers, tablets, phones, etc.
- ix) **Text Ads:** Text ads consisting of only text that include a title, one or two lines of description and a website address of the advertiser.
- x) **Rich Media Ads:** Rich media ads are interactive ads that include animated ads, Hypertext Markup Language (HTML), Flash and video ads.
- xi) **Page Views:** A page view means a webpage viewed by the user displaying one or more Google AdSense Ads.
- xii) **Impressions:** An impression is the number of ad units loaded on the user's device.
- xiii) **Clicks:** It means the number of times a user clicked on Google AdSense ads.
- xiv) **Estimated Earnings:** The approximate earnings by the owner of the website that is likely to change after proper verification like invalid clicks or impressions.
- xv) **CPC:** CPC stands for Cost-per-Click and that is the amount of money the advertisers need to pay each time a user clicks on their advertisement.
- xvi) **Page CTR:** CTR stands for Click-through Rate (CTR). The page CTR is the number of clicks on ads divided by the number of page views and then multiplied by 100.

- xvii) Page RPM: RPM is an abbreviated form of Revenue per Mille. Mille in Latin means thousand. So, Page RPM means the average earnings of a website per thousand page views. It is calculated by dividing the total earnings by the number of page views received, then multiplying by 1000.
- xviii) Impression RPM: The impression Revenue per Mille (RPM) or revenue per thousand impressions means the average earnings of a website per thousand impressions. It is calculated by dividing the estimated earnings by impressions, then multiplying by 1000.

- iii) Link Unit Ads: On each page of the website one link unit ad of 728x15 px was inserted.
- iv) Location of the Ad Units: One display ad unit just below the title of an article, two display ad units in the middle of the content and one link unit ad at the last portion of the article where the content ends was inserted.
- v) Ad Balance: The ad balance is set at 68% of potential ads.
- vi) Blocking Control: No ads were blocked.

4.2. Google AdSense Set-up on the Website

The basic set-up of the Google AdSense ads that were followed on the website is as follows.

- i) Number of Ad Units: A total of three display ads and one link unit ads, making the total ad unit to four ads, were inserted on each page of the website.
- ii) Display Ads: On each page of the website, three display ad units of size 728x90 px were inserted.

5. Major Findings

The findings can be grouped into the following two sections.

5.1. Website Usage Data

As per Alexa, as of the date of writing of this article, the website was placed within 2 lakhs Global Alexa rank and within India, the rank was below 50 thousand. The Google Analytics code was inserted into the website only in 2017. So, the following data is collected by going through the route of Google Analytics Dashboard -> Audience -> Overview from 2017 to 2021. In the generation of reports, the calendar year is selected i.e. 1st January of each year to 31st December of that particular year.

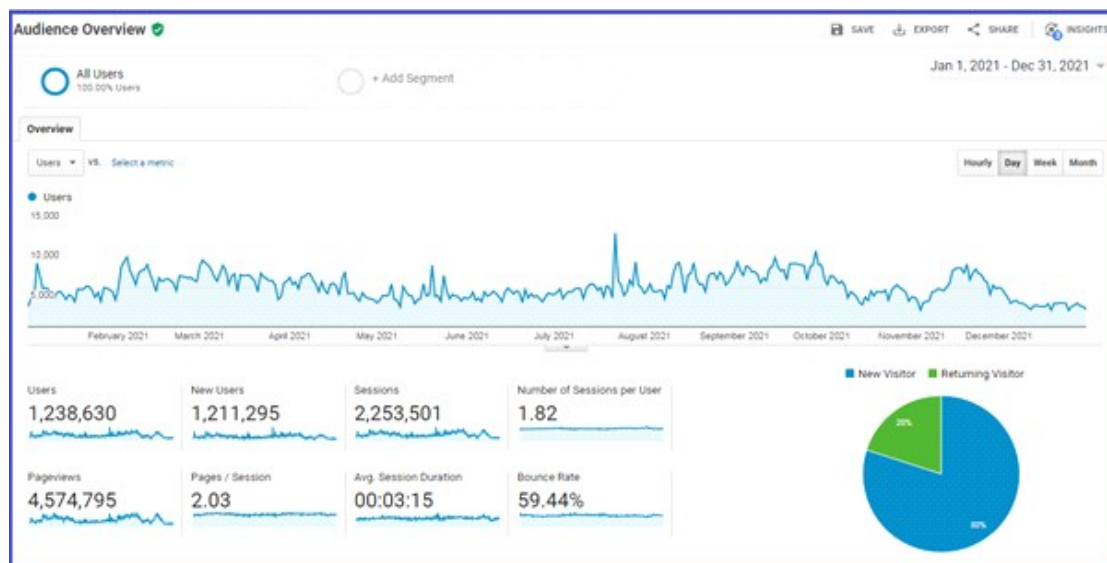


Fig. 1. Screenshot of Audience Overview of UGC NET Guide Website from Google Analytics

Table 1
Audience Overview of UGC NET Guide Website

Period	Users	Sessions	Pageviews	Number of Sessions per User	Pages / Session	Avg. Session Duration
January 1, 2017- December 31, 2017	177,686	345,878	741,851	1.95	2.14	00:03:52
January 1, 2018- December 31, 2018	659,090	1,306,864	2,782,475	1.98	2.13	00:03:31
January 1, 2019- December 31, 2019	1,041,377	2,071,999	4,735,205	1.99	2.29	00:03:30
January 1, 2020- December 31, 2020	1,267,257	2,504,388	5,253,528	1.98	2.10	00:03:25
January 1, 2021- December 31, 2021	1,238,630	2,253,501	4,574,795	1.82	2.03	00:03:15
Average	87,68,08	16,96,526	36,17,571	1.93	2.13	00:03:30

The data clearly indicate that there is steady growth in terms of the number of users of the site over the years, sessions and page views. It signifies that the website has been able to build a reputation over the years. However, average session duration i.e., time spent on the site consistently decreases and it signifies the decreasing attention span of the users over the years. A detailed investigation is needed to find out the reason for the same and it needs to correlate with the behavioural changes happening to people in general.

The data also indicate that on average, a user has 1.93 sessions and in each session they have 2.13 page views. So, a user simply visits 4.11 page views (Average Session x Average Page Views) of the website.

5.2. Website Earning Data

Google AdSense ads use contextual advertising besides others. In contextual advertising, Google tries to identify the central

theme of a website, topic or sections, keywords, language and the geographic location of the primary user of the website and then the attempt is made to match these with the probable ads for automatic placement on the website. Sometimes, the user's recent browsing history and such other factors are also accounted for to display an advertisement.

The site's page views, impressions, clicks, estimated earnings were collected by following the route of Google AdSense Dashboard -> Reports -> Overview. In the generation of reports, the calendar year is selected i.e. 1st January of each year to 31st December of that particular year. The website's earning data is present in the USA \$ as it is the currency in which the amount is calculated. To make the study more related to the Indian scenario, the user can convert US \$ to Indian Rs. In conversion, kindly remember that the currency used to fluctuate every day, not to speak of every month and year.

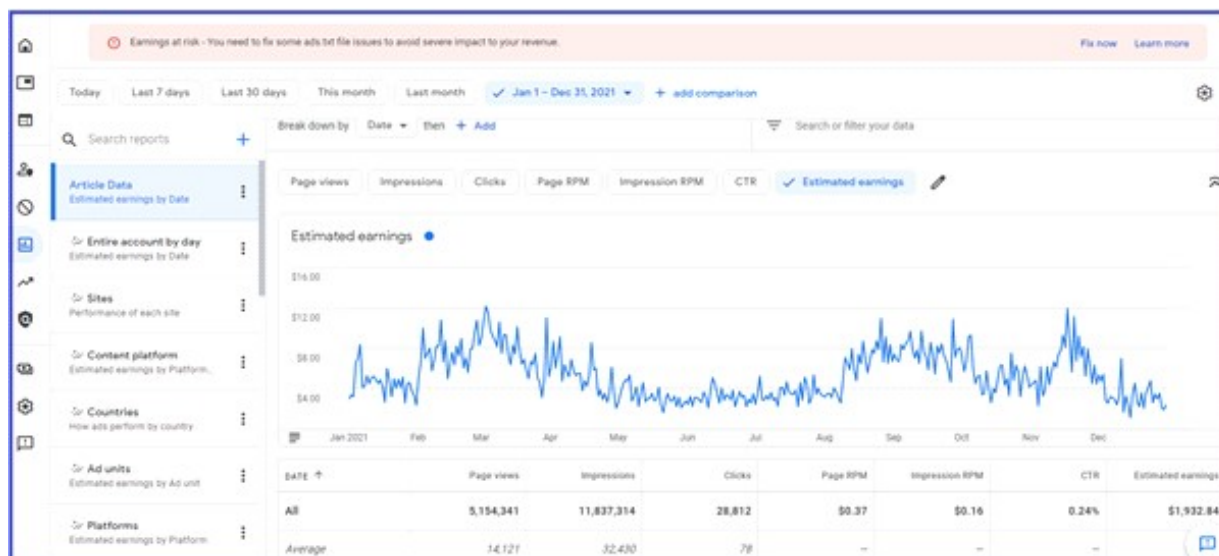


Fig. 2. Screenshot of Different Dimensions of Earning from UGC NET Guide Website from Google AdSense

**Table 2
Different Dimensions of Earning from UGC NET Guide Website**

Period	Page Views	Impressions	Clicks	Page RPM (In \$)	Impression RPM (In \$)	CTR	Estimated Earnings (In \$)
January 1, 2011-December 31, 2011	1040655	1716215	3632	0.33	0.20	0.35	343.58
January 1, 2012-December 31, 2012	6135590	17309218	86513	0.92	0.33	1.41	5642.05
January 1, 2013-December 31, 2013	6637397	19454038	118424	1.25	0.43	1.78	8270.73
January 1, 2014-December 31, 2014	5415059	16007757	107102	1.61	0.54	1.98	8705.48
January 1, 2015-December 31, 2015	3529099	12099828	79526	1.57	0.46	2.25	5528.41
January 1, 2016-December 31, 2016	1296691	6464362	22205	0.95	0.19	1.71	1235.42
January 1, 2017-December 31, 2017	2077441	10182959	39836	0.83	0.17	1.92	1715.97
January 1, 2018-December 31, 2018	3538164	9212726	44562	0.57	0.22	1.26	2006.44
January 1, 2019-December 31, 2019	5491669	10450623	64987	0.58	0.30	1.18	3162.16
January 1, 2020-December 31, 2020	5657622	11796516	46282	0.39	0.19	0.82	2225.00
January 1, 2021-December 31, 2021	4632405	10624954	26926	0.37	0.16	0.58	1733.07
Total	45451792		639995				40568.31

From 2014-2015, with Google AdSense, the Page RPM has been decreasing over the years. This may be partly due to the increasing number of websites available for the advertisers to display their ads. The same can be said for Impression RPM and Estimated Earnings.

From the data, we can say that on an average, a website can receive \$0.06 for each click on their advertisement (Total Estimated Earnings / Total Clicks) and a website with 1000 Page Views can receive \$0.89 [(Total Estimated Earnings / Total Page Views)*1000] and to receive \$0.89 a website needs 243 individual users (1000 Page Views / Number of Page Views per User from the analysis of data from Table-1). So, by implementing Google AdSense, a website, on average, with 243 individual users, can receive \$0.89. This can be a

day's earnings or a month's earnings or in a year. Earnings are based on whether the website receives these 243 individual users in a day or in a month or in a year. On average, the owner of the UGC NET Guide website receives \$307 each month for the last eleven years and it can be considered as a good income by considering the less effort and time given to the website.

Though the revenue can fluctuate on a day-to-day basis, people who are working in the online environment and have a good number of regular viewers or users are generally able to earn a decent amount throughout the year and are in line with the recommendations provided by Barman & Baishya in their article on "working independently: entrepreneurial approach in library and information science profession".

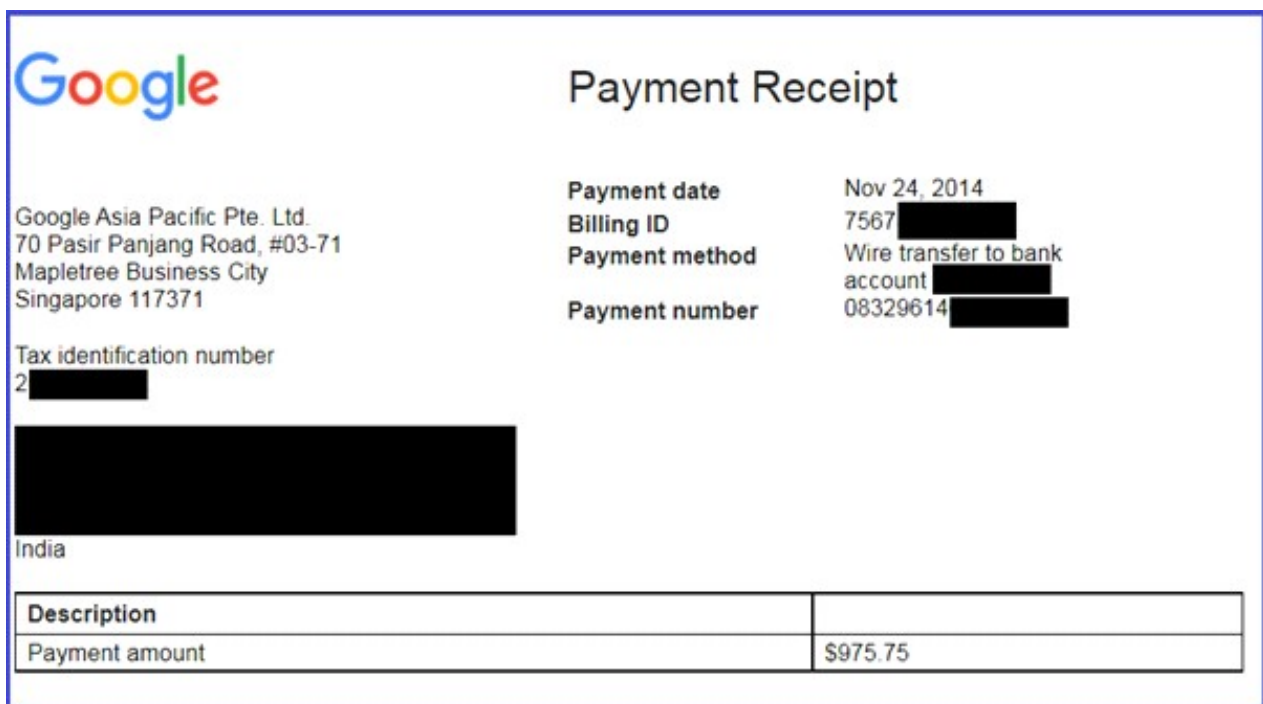


Fig. 3. Screenshot of Google Payment Receipt
(Note: Identifying elements are deleted)

Nowadays, Google stops the provision of insertion of new Google AdSense ads code or edited or modified the existing in Google Classic Sites from August 30, 2013 onwards and thereafter one only can delete if he/she wishes so. However, as the Google sites selected for the study started displaying Google AdSense ads from the year 2011,

it was uninfluenced by the later decision of Google in scrapping the Google AdSense ads from Google Sites and continuously displaying them till now. However, people are free to use Google AdSense on any other website of their choice provided that website adheres to the AdSense Terms of Service.

6. Conclusion

This paper highlights how much a Library and Information Science (LIS) professional can benefit by writing text of importance to a specific group of users in an online mode in the form of a Blog or Website and harvesting the benefit of Google AdSense in earning their livelihood in the ever emerging opportunity provided by the Internet. The writing skill, if put online, can generate income in the form of Google AdSense payment, sponsorship, or by becoming the brand ambassador of a firm or company and, in many cases, the amount generated can be used to meet the livelihood needs of a person and his/her family and thus he/she can think of working independently. If a library website, digital library or institutional repository and such other online platforms have a huge user base or receive a good number of visits each day, then they can generate their own fund and become self-sustainable by displaying ads through Google AdSense.

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