

# AWARENESS AND USE OF GOOGLE APPS BY THE P G STUDENTS AND RESEARCH SCHOLARS OF DEEMED UNIVERSITY LIBRARIES IN BANGALORE: A STUDY

**Kavita Biradar**

Research Scholar, Department of Library and Information Science,  
Jnabharathi Campus, Bangalore University Bangalore-56

Email:- [kavita.md2007@gmail.com](mailto:kavita.md2007@gmail.com)

**Dr. K. G. Jayarama Naik**

Associate Professor, Department of Library and Information Science,  
Jnabharathi Campus, Bangalore University Bangalore-56

Email:- [kgjrnaik.1964@gmail.com](mailto:kgjrnaik.1964@gmail.com)

## **Abstract:**

Google has gone from strength to strength since its creation, and aimed to organise the world's information and make it world-wide accessible and useful. Google expanded into internet delivery with their plan to build ultra high-speed broadband network. Google launched many innovative apps to internet services and crores of users have been using these apps in their day-to-day's works. So this paper relives that, use and awareness of Google apps among the students and research scholars at Deemed universities, Bangalore.

**Keywords:** Google; Google Apps; Deemed Universities;

## **1.0 Introduction:**

Google was founded in 1996 by [Larry Page](#) and Sergey Brin. Involved in rapid growth and development of different products like [Google's core search engine \(Google Search\)](#). For work and productivity (Google Docs, Sheets and Slides), [email](#) (Gmail/Inbox), scheduling and time management (Google Calendar), [cloud storage](#) (Google Drive), [social networking](#) (Google+), instant messaging and video chat (Google Allo/[Duo](#)/Hangouts), language translation ([Google Translate](#)), mapping and turn-by-turn navigation (Google Maps), video sharing (YouTube), note taking ([Google Keep](#)), and photo organizing and [editing](#) ([Google Photos](#)). It had developed [Android](#) mobile [operating system](#), the [Google Chrome](#) web browser, and [Chrome OS](#). Google has moved increasingly into hardware; from 2010 to 2015, it partnered with major electronics manufacturers in the production of its [Nexus](#) devices, and in October 2016, it released multiple hardware products (including the [Google Pixel](#) smartphone, Home smart speaker, Wi-Fi wireless [router](#), and Daydream View [virtual reality](#) headset. (Wikipedia 16 May 2017)

Sundar Pichai joined Google in 2004 and became CEO in August 2015. He developed HTML5 and open web platform at Google.

Google Chrome is a freeware web browser developed by Google, first released in 2008, downloaded on Desktop, Laptops, Android mobile Phones and Tablets. Known for the unique features like speed, simplicity, privacy and customization. Helps to search instantly and provide quick results, Allows us to type less auto fill lets us complete forms with just one click, while Auto suggest saves you time when typing URLs and searches. With Chrome, you can instantly access all your open tabs, bookmarks and recent searches from any device from where you have left reading last time you browsed, It also provides an unique option instead of typing your query you can simply speak your questions and get the answers instantly by using Google voice search.

## **2.0 Deemed University:**

The higher education system in India includes both private and public universities. Public universities are supported by Government of India and the state governments, while private universities are mostly supported by various bodies and societies. Universities in India are recognized by the University Grants Commission (UGC), which draws its power from the University Grants Commission Act, 1956. Deemed university, or "Deemed-to-be-University", is a status of autonomy granted by the Department of Higher Education in the Union Human Resource Development Ministry, on the advice of the UGC, under Section 3 of UGC Act, 1956. The status allows full autonomy in courses, syllabus, admissions and fees. As of now there are 130 deemed universities in India, 15 in Karnataka and 7 deemed universities in Bangalore.

## **3.0 Objectives of the Study**

1. To know the awareness and Use of Google Apps among the PG students and research scholars
2. To identify the familiarity of different Google Apps
3. To find out the purpose of using Google Apps
4. To Understand the applications of Google Apps in academic activities

## **4.0 Scope and Limitations:**

The scope of the study is limited to PG students and Research scholars of select deemed university libraries in Bangalore. Attempt has been made to understand how Google applications can be helpful to them in carrying out their academic activities smoothly and effectively.

## **5.0 Methodology**

For the present study the survey method of research was employed. A well-structured questionnaire was used as a data collection tool. A total of 150 questionnaires were distributed to the sample population and researcher received back 130 filled in questionnaires. The data collected was analysed, tabulated and interpreted in the following section.

## **6.0 Review of Literature:**

**Izenstark and Leahy (2015)** in their study about the Google classroom for librarians: features and opportunities had discussed about the Google classroom a simplified learning management system for users of Google Apps for Education. Google classroom is used as a library instruction tool to instruct the library staff and the students together into one virtual classroom. Further discussed about the privacy concerns of Google Apps for Education is a separate platform and adheres to FERPA regulations. Google's collaborative tools have been widely adopted inside and outside of the academic sphere. **Youngkin (2015)** discussed about the use of Google + hangout in libraries video conferencing tools which require no software installation by end users which is user-friendly and cost-efficient. With the help of Google + it allows librarians to conduct reference interviews, literature search follow-up, information literacy instruction sessions, create quick video tutorials to provide on-demand Web-based instruction on accessing library resources or introducing new users to the library's collection. **Khare(2009)** in her paper libraries on move: library mobile applications examines mobile search providers and potential applications for information seekers and librarians. Mobile technology has come up with a new trend that is "Libraries in Hand". Libraries are covering most of the technologies by delivering short services in the form of information. Now it is challenge for the librarians to increase the marketing of library information resources and services anytime and anywhere on one's own handheld devices.

## **7.0 Google Applications: A Technology Oriented Libraries**

Today libraries remain the important educational sites with providing physical and digital access to information. But the fast development of information technologies reshapes these public buildings into virtual spaces. Many university libraries invest in new technologies and try to improve digital access to learning materials. Google with its innovative products and applications has made it possible to use them anywhere anytime. Google applications provide en number of tools that libraries can implement them to promote library services and enhance library instructions.

1. Google Drive: is a cloud storage system that allow users to store file in cloud, synchronise the files across devices and share files instantly, launched on 24<sup>th</sup> April 2012. Google Drive offers users

15 gigabytes of free storage and users can change their privacy settings making the content accessible to them or to the public.

2. Google Translate: Google Translate is a free multilingual machine translation service developed by Google, to translate text, speech, images, sites, or real-time video from one language into another. Google Translate supports over 100 languages launched in April 2006 as a statistical machine translation service. Today research scholars and scientists can use google translate as it allows them to consult international sources which are published in different languages.
3. Google Video and You Tube : Google offers two video services, Google Video and YouTube, Google Video is a search tool to find video content on web it has an advanced search option which allows to limit the number of results by using filters like video duration time of posting ,source and quality. YouTube allows users to upload, view, rate, share, add to favourites, report and comment on videos, subscribe to other users. Available content includes video clips, TV show clips, music videos, short and documentary films, audio recordings, movie trailers and other content such as video blogging, short original videos, and educational videos. Both the services are useful to the libraries and users in accessing video content on library services, library tours, library instructions, and library collections.
4. Google Play Store: Google Play Store (originally called *Android Market*) is the digital and multimedia content distribution channel of Google released in March 2012. It's an online store of books, music, movies, Android apps, and more. It also serves as a cloud media player so that you can listen to your music collection anywhere. Android devices have access to Google Play from the Play Store app. Other devices like iPhones and computers can find the same resources through separate apps (e.g. Play Music, Play Movies & TV, Play Books) or through the Google Play website.
5. Google Hangout: It is a communication platform which offers instant messaging, video chat and SMS. Hangout provides online meeting places that do not have a paid web conferencing. It is used in classroom environment and in MOOCs. Librarians can use this app to promote conversations, share images, videos, and chats.
6. Google +: It is social networking service founded on June 28<sup>th</sup> 2011. Libraries can post photos and status updates like reservation of books, new arrivals to the user community, instant messaging, text and video chat through Hangouts, events like seminars, conferences, location tagging, and the ability to edit and upload photos.
7. Google Photos: Google Photos is a photo sharing and storage service developed by Google. It was announced in May 2015. Libraries can share and store images or photos in Google Photos.
8. Google Docs, Sheets and Slides: are a word processor, a spread sheet, and a presentation program offered by Google which can be accessed as web application, mobile aps for android and iOS devices. Users can create, share and edit files online while collaborating with other users on multiple documents and also allows downloading files in various formats. Add on features are also available like Mind Meister, Letter Feed Workflows and EasyBib .They are helpful for planning and delivery of library instructions. These productivity apps help in learning process that allows exploring, sharing, creating and sharing information. Add on feature for example Easy Bib allows students and Research Scholars to create a bibliography and citations are formatted into MLA, APA and Chicago style manuals. Easy Bib is helpful for the research scholars who are engaged in writing their thesis which provide them the instructions on plagiarism and acknowledging sources.
9. Google Calendar: Is a time management and scheduling service released on April 13 2006. Each library staff can create their own and share with their colleagues. The collaborative calendar is convenient for making appointments. It also has a function to send notification to all staff and ask to join the events. They can view and manage multiple calendars across all devices even if offline.
10. Google Forms: Google Forms is a tool that allows collecting information from users via a personalized survey or quiz. The information is then collected and automatically connected to a spread sheet. The spread sheet is populated with the survey and quiz responses. Nowadays research scholars are making use of the Google forms as a research tool which allows them to create questionnaires and forward them to the sample respondents which helps them to elicit data online from them irrespective of time and geographical barriers.

11. Gmail: Gmail is a free email service developed by Google on April 1<sup>st</sup> 2004 developed by Paul Buchheit available in 72 languages. Library can make use of Gmail for sending mails, document delivery as an email attachment, current awareness service to the user groups.

## 8.0 Data Analysis

**Table 1 Access to Internet Facility in the Library**

Access to internet Facility	Responses	Percentage
Yes	130	86.67%
No	0	

In the above table 1 Respondents were asked about access to internet in their library 130 (86.67%) has given positive responses and said that they have access to internet facility in the library.

**Table 2 Tools for using Internet**

Tool for using Internet	Responses	Percentage
PC	10	7.69%
Laptop	46	35.38%
Tablet	7	5.38%
Smart Phone	70	53.85%

It is clear from the above table 2 majority of the respondents 70 (53.85%) use smart Phones to access internet followed by laptop are 46(35.38%), PC are 10 (7.69%) and Tablet are 7(5.38%).

**Table 3 Awareness of Google and its Apps**

Awareness on Google and its services	Responses	Percentage
Yes	130	86.67%
No	0	0

It is observed from the above table 3 that 130 (86.67%) are aware of Google and its Apps.

**Table 4 Usage of Google Apps**

Particulars	Daily	Once in a Week	Twice in a Week	Monthly	Rarely	Not at all
Google Play store	23 (17.69%)	32 (24.62%)	17 (13.08%)	24 (18.46%)	24 (18.46%)	10 (7.69%)
Google forms	18 (13.85%)	7 (5.38%)	6 (4.62%)	17 (13.08%)	37 (28.46%)	45 (34.62%)
Gmail	88 67.69	14 10.77	7 5.38	1 0.77	11 8.46	9 6.92
Google Calendar	48 36.92	21 16.15	6 4.62	5 3.85	24 18.46	26 20.00
Google Drive	32 24.62	22 16.92	8 6.15	24 18.46	26 20.00	18 13.85
Google +	22 16.92	17 13.08	10 7.69	13 10.00	42 32.31	26 20.00
Google Translate	22 16.92	17 13.08	5 3.85	13 10.00	44 33.85	29 22.31

Google News	51 39.23	20 15.38	5 3.85	5 3.85	21 16.15	28 21.54
You Tube	96 73.85	12 9.23	8 6.15	3 2.31	6 4.62	5 3.85
Google Maps	75 57.69	20 15.38	8 6.15	7 5.38	11 8.46	9 6.92
Google Photos	37 28.46	25 19.23	8 6.15	10 7.69	20 15.38	30 23.08
Google Keep	13 10.00	4 3.08	9 6.92	5 3.85	25 19.23	74 56.92
Google Allo/Duo/Hangouts	16 12.31	6 4.62	8 6.15	5 3.85	31 23.85	64 49.23
Google Blogger	10 7.69	7 5.38	8 6.15	12 9.23	32 24.62	61 46.92

Table 4 shows that 96(73.45%) of the respondents use You tube daily, while 25(19.23%) of them use Google photos once in a week, Google play store 17 (13.08%) is used Twice a week, 24(18.46%) respondents use Google drive monthly, Google translate 44(33.85%) are rarely, 64(49.23%) never use Google hangouts.

**Table 5 Time Spent on Google Apps**

Time Spent	Responses	Percentage
1-2 hrs	80	61.54
3-4 hrs	35	26.92
5-6 hrs	6	4.62
6 hrs and above	9	6.92

It is evident from the above table 5 that most of the respondents 80 (61.55%) use Google Apps for 1-2 hours followed by 3-4 hrs. are 35 (26.92%) 6 hrs. and above are 9 (6.92%) and 5-6 hrs are 6 (4.62%)

**Table 6 Ratings for Google App services**

Ratings for Google app services	Responses	Percentage
Excellent	37	28.46
Very good	73	56.15
Good	18	13.85
very poor	2	1.54

Respondents are asked to rate Google App services, It is observed from the above table 6 that 73 (56.15%) rated Google Apps as very good followed by excellent are 37(28.46%) good are 18(13.85%) and very poor 2 (1.54%)

**Table 7 Features essential and Useful**

Sl.No	Features	Strongly Agree	Agree	Uncertain	Strongly Disagree	Disagree
1	Instant Messaging	66 50.77	54 41.54	9 6.92	0	1 0.77
2	Speed Connectivity	77 59.23	39 30.00	7 5.38	4 3.08	3 2.31
3	Less Spam	53 40.77	36 27.69	25 19.23	10 7.69	6 4.62

4	Email Security	81 62.31	36 27.69	8 6.15	2 1.54	3 2.31
5	Privacy	73 56.15	26 20.00	18 13.85	8 6.15	5 3.85
6	Agenda Management	39 30.00	51 39.23	35 26.92	2 1.54	3 2.31
7	Universal Access	72 55.38	34 26.15	19 14.62	1 0.77	4 3.08
8	Work Online	68 52.31	40 30.77	15 11.54	3 2.31	4 3.08
9	Real time Availability	64 49.23	51 39.23	7 5.38	4 3.08	4 3.08

Table 7 shows the features that are essential and useful for Google Apps, Majority of the respondents 81(62.31%) strongly agree that Email security is highly essential and useful, 54(41.54%) agree for instant messaging, 35(26.92%) are uncertain about agenda management, 10(7.69%) and 6 (4.62%) strongly disagree about less spam.

**Table 8 Purpose of Using Google Apps**

Sl.No	Purpose	Strongly Agree	Agree	Uncertain	Strongly Disagree	Disagree
1	For Formal Communication	65 50.00	44 33.85	18 13.85	0	3 2.31
2	For Social Networking	72 55.38	44 33.85	9 6.92	3 2.31	2 1.54
3	Watch, download, and share videos	78 60.00	48 36.92	3 2.31	0	1 0.77
4	Information related to academic activities	59 45.38	60 46.15	10 7.69	0	1 0.77
5	Listening and downloading music	76 58.46	39 30.00	11 8.46	3 2.31	1 0.77
6	To organize your work	59 45.38	51 39.23	10 7.69	8 6.15	2 1.54

Table 8 indicates the purpose of using Google Apps, majority of the respondents 78(60.00%) strongly agree that they use Google apps to watch, download and share videos, 60(46.15%) agree that they use them for information related to academic activities, 18(13.85%) are uncertain about formal communication and 8 (6.15%) strongly disagree about organizing work.

**Table 9 Effectiveness of Google Apps on academic activities**

Sl.No	Effectiveness	Strongly Agree	Agree	Uncertain	Strongly Disagree	Disagree
1	To Share Lectures and Class room Presentations	64 49.23	56 41.54	8 6.15	0	4 3.08
2	To share assignments/Projects/Reports/Dissertation for study and evaluation	73 56.15	48 36.92	5 3.85	0	4 3.08
3	To Conduct interviews using Google hangout	27 20.77	52 40.00	36 27.69	8 6.15	7 5.38



Table 9 indicates the effectiveness of Google Apps on academic activities, 73 (56.15%) of the respondents use them for sharing assignments/projects/reports/dissertation for study and evaluation, 56(41.54%) agree that they share lectures and class room presentations, 36(27.69%) are uncertain about conducting interviews using Google hangout, 8(6.15%) strongly disagree and disagree is 7(5.38%) of conducting interviews.

**Table 10 Helpfulness on research work**

Sl.No	Helpfulness	Strongly Agree	Agree	Uncertain	Strongly Disagree	Disagree
1	Easily collect survey responses through Google documents	55 42.31	49 37.69	20 15.38	2 1.54	4 3.08
2	Save the time of the researcher	66 50.77	46 35.38	10 7.69	4 3.08	4 3.08
3	Cost effective	68 52.31	36 27.69	16 12.31	2 3.08	6 4.62

Table 10 indicates the helpfulness of Google Apps on research work, 68 (52.31%) of the respondents strongly agree that Google Apps are cost effective, 49(37.69%) agree that they can easily collect survey responses through Google documents, 20(15.38%) are uncertain about collecting responses, 4(3.08%) strongly disagree that they save the time of the researcher and disagree is 6(4.62%) about their cost effectiveness.

## 9.0 Findings:

1. 130 (86.67%) said that they have access to internet facility in the library.
2. Majority of the respondents 70 (53.85%) use smart Phones to access internet
3. 130 (86.67%) are aware of Google and its Apps.
4. 96(73.45%) of the respondents use You tube daily.
5. Most of the respondents 80 (61.55%) use Google Apps for 1-2 hours
6. Respondents are asked to rate Google App services.
7. Majority of the respondents 81(62.31%) strongly agree that Email security is highly essential and useful.
8. Majority of the respondents 78(60.00%) strongly agree that they use Google apps to watch, download and share videos, 60(46.15%) agree that they use them for information related to academic activities.
9. 73 (56.15%) of the respondents use them for sharing assignments/projects/reports/dissertation for study and evaluation.
10. 68 (52.31%) of the respondents strongly agree that Google Apps are cost effective on their research work.

## 10.0 Conclusion:

Google Apps are widely accepted and are effective tools in teaching and learning environment. Students are continuously involved in sharing of information and generation of knowledge. Google Apps allows students to use creative ways to use new technology in their disciplines.

## 11.0 References:

1. Youngkin., Andrew.C. (2015).Hangout at the library: video conferencing and more with Google+. Library Hi Tech News. 32 (3), pp.13-15.
2. Izenstark., Amanda. and Leahy., Katie L. (2015) Google classroom for librarians: features and opportunities. Library Hi Tech News. 32 (9) pp.1-3.
3. Khare., Nidhi. (2009). Libraries on move: Mobile Applications.7<sup>th</sup> international calibre. Pondicherry University. Pondicherry, Feb 25-27.
4. Smallwood., Carol. (2015). The Complete Guide to using Google in Libraries. Rowman and Littlefield. London, vol2.
5. [www.google.co.in](http://www.google.co.in) accessed on 01/07/17