



SURVEYING SNA TOOLS: HOW FAR & HOW CLOSE TO RESEARCHER

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Abstract—In modern era social network field growth rapidly and the research also at the boom to the related field. To work in social network is required the data so researcher needs to collect the data and they take the help of some software. This paper is written for the researcher's point of view, what are the limitations/constraints of the social network analysis tools. Some tools are paid, some tools are required permission from the tool management team and some tools provide only limited data not complete. All these things keep in mind and aware to the researcher is the main motive of this paper. In future, this paper will really helpful to the researcher and gave a specific direction according to their interest.

Keywords— Social Network Analysis Tools, Digital Footprints, Cytoscape, Gephi

I. INTRODUCTION

For a new researcher in the field of social network analysis it's necessary to data for the experiment, So the main issue is how to collect the data for this purpose there are number of tools available with the help of exhaustive research near about 135 tools but out of which rarely few tools works properly means there are so many constraints like some tools are paid, some tools have poor interface and some tools provide specific data not in generic form. In this paper near about 80's tools are explained by the performing ourselves analysis. So there are so many truth and myth about the tools some tools claims but in reality don't work like that. There are so many tools those provide free signup but for access the tool required registration or some tools provide the limited data accessibility, for complete data accessibility required to buy/purchase a plan according to your need/research. Social network analysis history explained by the L.C. Freeman, they divided the social network analysis history into 4 parts. Early to the 1920's, 1920 to 1930, 1940 to 1969 and 1970 to till today [1]. Social network analysis has following features: Based on systematic data collection, graphics view, mathematical model for information spreading and structural formulation means link

between node and attributes of nodes. Georg Simmel was the first person of twentieth century who started the work on social network [2]. J. Moreno started work on the small groups like classroom in 1930s. M. Gluckman and J. Mitchell worked to formulate the network in India, South Africa and United Kingdom in 1950s-1960s. One group of research Harvard University (Dept. of Social Relation) worked on combining the track and traditions in 1960s-1970s.

Social network analysis is helpful to predicting and influences the user behavior on the social networks by the performing the following activities: Detecting insurance scams, identify crime patterns, break fraud rings and combat terrorism [3]. Social network analysis plays an important role in different fields/departments and different-different operations (improved customer targeting, brand ambassadors, health care fraud, reducing account churn, terrorism and preparing today for tomorrow). Social network analysis tools are the highly scalable; they are easily worked over the small village network to a worldwide network [4]. There are so many tools those provide the visualization of the networks such as NodeXL, UCINET, AllegroGrapg, Cytoscape, Graphviz, igraph, Metasight, Pajek and social network visualizer [2]. Louise Clark gave an excellent idea about the network visualization with the help of NetDraw. The important thing is data collected by the social network analysis tools is more confidential as a point of privacy on the social network (Facebook, Twitter, and Instagram). Social network analysis tools are widely used in the government sector, business sector and also in the academics. Some social network analysis tools are specifically helpful for the interventions in diseases [4].

There are both types of tools available offline mode working tool as well as online mode working tools such as Gephi, Tulip works in offline mode and Digitalfootprints works in online mode. Tools have some limitations and constraints some tools are available free & open source but some tools required one time license, some tools required monthly or yearly package, some tools required to take the permission from the software team to access the particular tool [5].

The rest of the paper is organized as follows. Possible categories for social network analysis tools are explained in

section II. Details of the social network analysis tools are presented in section III in the form of a Table. Concluding remarks are given in section IV.

In this paper tools are classified into different-different categories and shown into the form of pie chart as follows.

II. POSSIBLE CATEGORIES FOR SOCIAL NETWORK ANALYSIS TOOLS

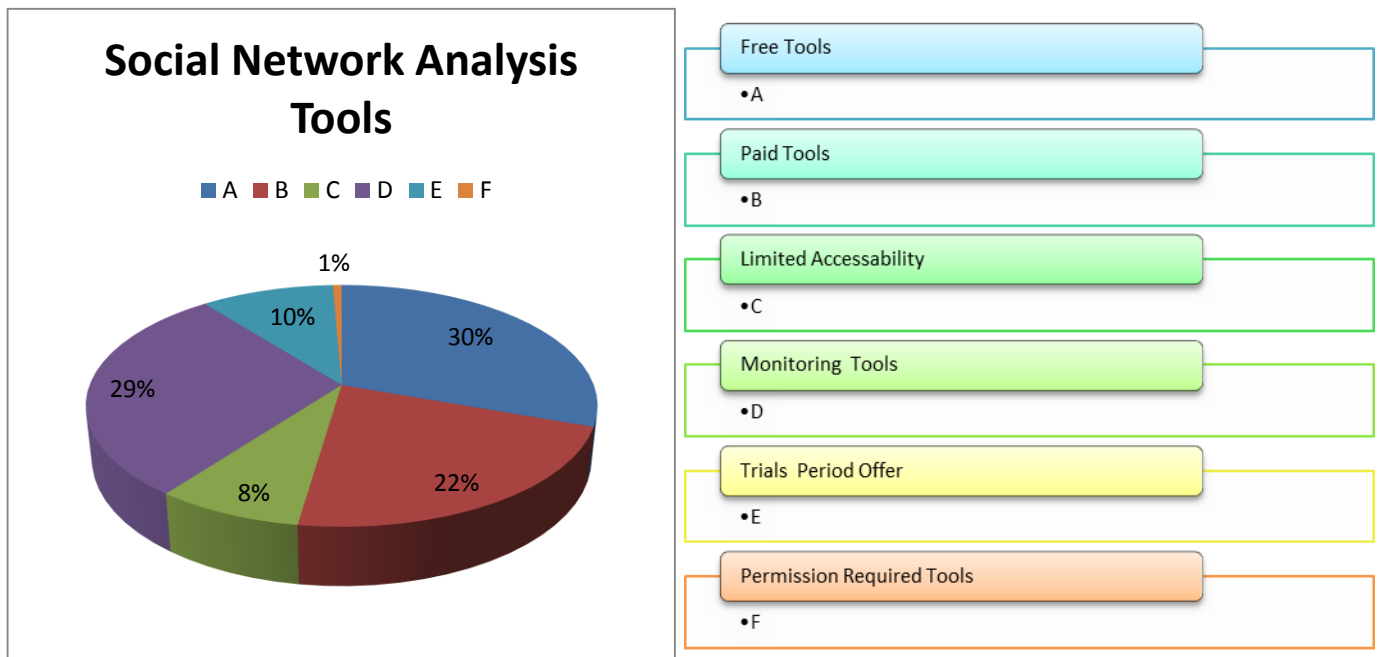


Fig. 1 Social Network Analysis Tools Categories

III. DISCRPTION OF SOCIAL NETWORK ANALYSIS TOOLS

Table 1

TOOL'S NAME	CATEGORY	TOOL DISCRPTION	REMARK
DIGITAL FOOTPRINTS [5]	Free, Online tool	<ul style="list-style-type: none"> Digitalfootprints is data analysis software, no need any programming skills. There is needed to take permission from Digital footprints team to access this software. Digital footprints team gave the permission after the verifying the mail address and the ongoing research project. 	It collects the data from the Facebook(Wall, Page, Group)
DISCOVERTE XT [6]	30 Days trial period, Discount for academic staff & faculty is 50% ,for students is 75%	<ul style="list-style-type: none"> Discover Text is text surveys and social media analytics powerful online software with many text mining features. It also available in free trial time period to know how it works and researcher can check the performance. 	It useful in government, military, education, consumer departments.
INFOEXTRAC TOR [7]	Free, non-commercial, online tool	<ul style="list-style-type: none"> Researchers can extract the relevant information from different sources like blogs, YouTube and Wikipedia by entering the web URL with this software in the form of structured. 	This tool is designed for Firefox.



		<ul style="list-style-type: none"> It is web based service which is focused on social media content by providing the data and metadata. 	
NETVIZZ More than 30 versions [8]	Non-commercial, online tool	<ul style="list-style-type: none"> Netvizz is a data collection and extraction application, It's helpful to export the data from different parts of the Facebook. Initially it was developed for the API of the Facebook in 2009. Netvizz application written in PHP programming language. 	It is a Facebook application
NODEXL More than 10 versions [1]	Free	<ul style="list-style-type: none"> Node XL is data analysis and data visualization open source software similar to other software like Pajek, UCINET and Gephi. The software written in c# and .Net programming language. Node XL support to Facebook, Twitter, Wikipedia, web hyperlinks and Microsoft exchange server. Node XL requires little knowledge to the researcher to collect the data, analyze the data and visualize the variety of Networks. Researcher request to collect the data from different networks users and get the publicly available data. It supports the UCINET and GraphML files, containing the edges and adjacency matrices. Researchers can determine Diameter, Clustering coefficient and Centrality. Initially it was release in July 2008 but stable release in April 2013. 	Social Media Research Foundation is the developer of the Node XL.
SODATO [10]	Online tool	<ul style="list-style-type: none"> Social Data Analytics Tool helps to researchers to conducting research for social data via collection of data, storage of data, analyzing the data and reports the big social data. It supports Facebook and Twitter. 	It is not real time work(login not completed)
FACEPAGER Current version 3.6 [11]	Free plans for public project but for private \$7 /month to\$50/month	<ul style="list-style-type: none"> Facepager is helpful to collect the data from Facebook, Twitter and other JSON based API which is publicly available. Data is stored in SQLite database and exported to CSV. Currently version of facepager is 3.5. How it works- To create a database click the toolbar "New Database" and add Facebook ids by clicking "Add Nodes" in the toolbar. For query purposes user need to enter with a valid Facebook id and login then select one or more nodes to fetch the data. 	Developed by the Till Keyling in 2011
BUFFER [12]	Price free to \$250/month	<ul style="list-style-type: none"> Buffer is a social media scheduling and management tool; originally it is designed for Twitter and now days also suitable for Facebook, LinkedIn and App.net. User can upgrade 12 profiles with the combination of any (Facebook, Twitter, LinkedIn and App.net) with 10\$ per months. User can also connect to the Facebook pages and LinkedIn groups. It is easily scheduled the post and tweets by set the time zone and schedule. Buffer works out as dripping the post from the queue. Buffer is available in Chrome, Firefox, Safari and Opera web browsers & mobile applications Android and iOS 	User one time post in buffer and automatically appears in different social networks as per user want



		devices.	
FOLLOWERW ONK [13]	Free for one profile and \$99/month	<ul style="list-style-type: none"> • Followerwonk tool designed for Twitter to track the followers, sort the followers and compare the followers via analyzing them. It helpful to grow the social graph and explore the social graph. • Users can determine who the followers are, where they are located and when they do tweet? It matches the user's activities to gain and losses in followers' point of view what is the best and worst. 	It is a moz application, user can see the follower location
VIRALWOOT [14]	Free, online tool	<ul style="list-style-type: none"> • Formerly known as Pinwoot, used for promotes the Pinterest pins. Users can manage and grow more than one Pinterest account with the help of a single Viralwoot. 48% American use Pinterest at working hours so it is necessary to pin at right time. Users can check who is pinning their website with the help of Pin alert features. • A new version of Viralwoot known as Pinterest Analytics coming soon for tracking the Pinterest of the clients and virility of the clients. 	User can pin any data/address at any URL for advertisement or promotion.
ICONOSQUAR E [15]	Free, online tool	<ul style="list-style-type: none"> • Iconosquare come in April 2014 for Instagram, initially its name is Statigram. First time Maura Wall Herandez used to Iconosquare for bloggers at conferences. • Most of the bloggers don't need to customizable feeds, conversation tracker or hash tag and competitor tracking. Statigram in first week had 20,000 users registered for platform access. • Its determine number of Likes received, most like photos, average number of likes, comments per photo and follower growth charts. 	User can manage their Instagram account.
SUMALL [16]	Online tool	<ul style="list-style-type: none"> • SumAll is an analytic tool that provide a simple view of easy to use social media visualization, e-commerce, advertising, traffic data and email complete view of activities.(Twitter) 	It is used for business campaign. Engaged the audience with automated data driven tweets.
QUINTLY [17]	14 Days free trial, \$129/month- \$479/month	<ul style="list-style-type: none"> • Quintly is professional social marketing analytic tool that compare the performance of marketing activities and monitor the marketing activities. • It supports both Facebook and Twitter. It can determine the success in the market with the competitors and visualize the benchmark of the success. 	It provides the competitive benchmarking, smart reporting, overall metrics and key influencers
CYFE [18]	\$19/month,\$14/month(for annually plan)	<ul style="list-style-type: none"> • Cyfe is all in one dashboard tool that analyzes and monitor scattered data across the online services like Salesforce, Mailchimp, Google Analytics, AdSense WordPress and Facebook from single location realtime. 	User can create only free account for access the functionality needs to monthly plan
TAILWIND [19]	\$9.99/month- \$799.99/mont h,free trial	<ul style="list-style-type: none"> • Tailwind is an official partner of the Pinterest and used by the 35,000 organizations all over the world. The main motive of the tool is save the time by providing so many shortcut and drag down buttons for pinning the audience. • This tool is supported by the Facebook, Twitter and LinkedIn. This tool provide the 360 degree view and affordable for the small companies. 	It provides pin scheduling and content management
BEEVOLVE	Online tool	<ul style="list-style-type: none"> • Beevolve is social media software for business to measure 	Social media monitoring



[20]		the resulting sales, monitors the brand schedule and launching social media posts. It also useful in web crawling, online reputation management.	and marketing
KEYHOLE [21]	\$129 - \$3000/month(10% off for yearly plan), free trial	<ul style="list-style-type: none"> • Keyhole works in the Facebook, Twitter and Instagram social networking sites for tracking the #tag. • It determines most influential person those are connected the brands keywords and provides them content to reachability the brands. 	It provide the historical data from Twitter & Instagram
KLOUT [22]	Online tool	<ul style="list-style-type: none"> • Klout measures influences in Twitter to find out the people to identify the top influencers. • The main motto of Klout is to determine the individual leverage influence and understand that. 	User can share a post in different networks (Facebook, Twitter, Instagram)
MYTOPTWEE T [23]	Free, Online tool	<ul style="list-style-type: none"> • User can see the most retweeted tweets with the help of Mytoptweet not necessarily your own account (any twitter account). • Only user's ID required for check the retweets of the twitter account. 	User can read the tweets and see who is follow you
HOWSOCIAB LE [24]	Free, online tool	<ul style="list-style-type: none"> • Howsociable is free monitoring tool designed for measuring the keywords and brands using the 32 social networking sites. • It helpful to compare the brands business competitors and measuring the visibility of brands on the web. 	It measures the magnitude of brands.
SOCIALBRO [25]	Free, online tool	<ul style="list-style-type: none"> • Socialbro used by the 10,000 companies all over the world. Basically this tool designed for the social marketers for social marketing activities. • This is the official partner of the Twitter. It helps in build unique audience profile so that anyone can easily identify. 	It is used for social marketing and Twitter advertising
TWEETREAC H [26]	\$99-\$399/month, online tool	<ul style="list-style-type: none"> • TweetReach is useful to measure the twitter activities, monitor the tweets, hashtag, brand accounts and real time for comprehensive analytics. • It provides the real time insights so that user can take better decisions. 	It is made by Union Metrics in San Francisco(California)
WOLFRAME ALPHA [27]	Free, online tool	<ul style="list-style-type: none"> • Wolframe alpha is a free from natural language input with dynamically computed result. • The main motive of this tool is immediately computation and accessibility by everyone. 	It is useful more than 30 fields such as education, transportation, music.
FACEBOOK INSIGHTS [28]	Free, online	<ul style="list-style-type: none"> • Facebook insights provide page's performance but the condition is when page is liked by at least 30 persons then only this option available. 	It is a Facebook application.
TWITTER ANALYTICS [29]	Free, online tool	<ul style="list-style-type: none"> • It is available in the Twitter account. Twitter analytics boost and measure the impact on the Twitter. • It can explore the interest, location and demographics of the followers. It shows the working of retweets, application install and clicks done by the twitter cards. 	User can check their Twitter account activities with a single button "Turn analytics on".
PINTEREST ANALYTICS [30]	Free ,online tool	<ul style="list-style-type: none"> • User can determine how many people are pinning their website with the help of Pinterest Analytics. • To seeing the number of pins and content pick a time of frame for number trends over time. It also determines people which device used for pinning to highest 	It provides the platform metrics for pins.



		performance.	
LINKEDIN ANALYTICS [31]	Online , 14 days trial period	<ul style="list-style-type: none"> • Basically it has two categories the first one for individuals and second one for business. • There are three sub parts of the software (visitors, followers and updates). Linkedin analytics provide the traffic visitor and follower growth graphically with respect to the time. • It supports Facebook and Twitter social networking sites by updating the posts on Facebook and tweets on Twitter. 	Networks Features endless flexibility, interaction, updates analysis.
GOOGLE+ INSIGHTS []	Free, online tool	<ul style="list-style-type: none"> • This tool designed for all Google+ pages that mean company's analysis their metrics on social networks. • Insight generated report has three parts (Engagement, visibility and audience). User can see who is viewing their content on the web with the help of this software. 	Company can visualize the users and new users in chart form.
CROWBOOSTER [33]	30 Days trial period, \$9-\$119/month	<ul style="list-style-type: none"> • Crowbooster is a social media marketing tool by which user can measure and optimize the activities those are happening on the social media. • User can receive real time data from this tool at own dash board. It exports the data in CSV format for the report. Crowbooster helps to finding the most engaged followers and fans. 	It is helpful for analytics, creators and advertisors.
RIVAL IQ [34]	14 Days trial, \$199-\$439/month	<ul style="list-style-type: none"> • Rival iq is a digital analytic marketing tool designed for calculating the competitive factor with competitor organization or companies. • It provides 14 days free trial to more know about this tool and how it works. It generates on demand alert and PPT report. 	Business purpose tool
SOCIAL BAKERS [35]	Free, online tool	<ul style="list-style-type: none"> • More than 2500 companies used this tool all over the world (100+ countries). This is used for tracking the competition promotion and making better on the media. • It gave the News and social marketing report. 	User can see different parameter from Facebook, Twitter, Google+ (no. of fans a particular page)
SOCIAL REPORT [36]	30 Days trial, \$19-\$199/month	<ul style="list-style-type: none"> • Social report is an all in one social management tool. This tool is used for analysis, publishing, monitoring, measuring ROI, manage team, custom report, live support and integration. • It supports for Facebook, Twitter for business reviews. It generates report in PDF and Excel file format. 	User required providing the account details before accessing the trial offer.
MOZ PRO [37]	\$99-\$599/month	<ul style="list-style-type: none"> • Moz pro is a SEO analytics tool with the help of this tool user can increase the visibility and make you better than your competitors. It provides the free trial time period. 	It is useful in content and search market.
SURVEY MONKEY [69]	Free to 3999 Rs./month	<ul style="list-style-type: none"> • It is a free tool with limited data accessibility but for complete data fetching the charge of the tool is \$300 per year. • SurveyMonkey provides the data in the SPSS data files format. It support for the Twitter, Facebook, website links and email. • It can generate online report with question randomization 	User can take better decisions on the bases of surveys.



		and word clouds features.	
SURVEY GIZMO [69]	\$22-\$85/month	<ul style="list-style-type: none"> The cost of the tool is \$810 per year for complete data accessing but for limited data access it is free of cost. Survey Gizmo can generate online report as well as PDF format, SPSS data files format. It able to collect the data from the Facebook, website links, email and Twitter. Reports generated by the Survey Gizmo are TURF and customized. 	It provides survey logic & branching, real time action and triggers.
QUESTION PRO [69]	\$12-\$75/month	<ul style="list-style-type: none"> Question pro is a free tool for data collection limited access but for complete accessibility cost is \$1008 per year. It generates online report in Excel, PowerPoint and SPSS data file format. User can collect data from Facebook, Twitter, email and website links with the help of this tool. Interesting features are multimedia surveys and integration from third party. 	It also available in mobile application.
QUALTRICS [69]	Free, Online tool	<ul style="list-style-type: none"> Qualtrics provides unlimited surveys and responses. It generated online detailed report and Panel management. Format of files is SPSS data files from generated this tool. 	It provides 360 degree reviews.
SNAP SURVEYS [69]	Online tool	<ul style="list-style-type: none"> It is software which is used as a single PC installation with \$1995 plus \$395 per year. Snap Survey design for analysis from desktop software with 5000 responses. This tool generate paper version of surveys for manually filled data entry (multimedia surveys). 	It started in 1981.
TOLUNA QUICK SUVEYS [69]	Unlimited Free surveys, online tool	<ul style="list-style-type: none"> Toluna QuickSurvey support smartphone friendly surveys. It is a subscription free tool for recruit respondents. 	2,000 Responses less than 24 hours.
SUPER SIMPLE SURVEY [69]	Free to \$99/month	<ul style="list-style-type: none"> It is an open access tool for building the intuitive survey supported by the smartphones. More than one user accesses this tool with the same account and unlimited accessibility. 	User can receive survey with in second with high security.
POLLDADDY [69]	Free to \$899/year	<ul style="list-style-type: none"> Polldaddy is a free tool for collection data supported iOS application. It collected data in the Excel, PDF, Docx, CSV and XML format. 	Easy to use Survey editor, Powerful reporting & filtering, collect responses
OBSURVEY [69]	30 Days trial, \$12 to \$121	<ul style="list-style-type: none"> Obsurvey is a free tool for creating the survey and hosting the surveys. User need to upgrade their account for access more functionalities of this software. 	User can apply the password on the survey.
WUFOO [69]	Free to \$69.95/month	<ul style="list-style-type: none"> Wufoo is a free tool designed for creation online forms with large number of themes and templates. More than one user can access the same account. It exports the data in Excel and CSV format. 	It uses as report builder and form manager.
INSIGHTIFY	Online tool	<ul style="list-style-type: none"> Insightify is a free tool. There is an Administrator, and he has right to add/remove 	Main functionalities are elegant creation process,



[69]		researcher from their project.	fast blazing data and growing community.
SURVEY CRAFTER [69]	Free to \$495/user	<ul style="list-style-type: none"> The cost of this tool is \$495 for a single user. Survey crafter used for analysis with cross tabulation and summary data. It is a Desktop survey creation tool. 	There are 3 versions of survey crafter for downloading (4.0 information sheet, 4.0 quick preview, 4.0 evaluation)
HOOTSUIT [38]	30 Days trial, free to \$8.99/month	<ul style="list-style-type: none"> It create custom report form more than 30 individual report, follower growth, track brand sentiment. It support dashboard for iPad, iPhone, Android and BlackBerry. Hootsult is helpful in scheduling the message for future purpose publishing, knowing about the audience review about the brand, depth view regarding the social media efforts working. It includes more than 80 applications and allows Instagram, Reddif, YouTube and Markto social networking sites. 	It performs engagement, listening, collaboration, analytics, application with social media.
TWITTERCOUNTER [39]	\$8-\$120/month	<ul style="list-style-type: none"> Twitter counter is used to track the users; able to track more than 14 million users. It also provides the button and widget to the user so that user can add the social network profile, blogs and website. User can check the recent visitors and number of followers with the help of Twitter counter. 	User can optimize their tweet timing and see how fast their account is growing.
SOCIAL MENTION [40]	Free, online tool	<ul style="list-style-type: none"> Social mention can monitor 100 social media sites, aggregates the content into a single stream of information. It tracks & measures the users' activities regarding the company product and social media landscape for real time. 	User can see the strength, passion, sentiment, reach of a particular celebrity, product
ADDICT-O-MATIC [41]	Free, online tool	<ul style="list-style-type: none"> It is a resource by which user can interact with the hottest topic and get the information what's going around the world. Addictomatic searches the live sites on the web to getting the images, videos, blogs and posts. User can also personalized the dashboard with the help of latest headlines of the topic like sports, entertainment, politics and shopping. 	It provides a poor interface to the user.
BACK TWEETS [42]	Free, online tool	<ul style="list-style-type: none"> Back Tweet is a time machine of the Twitter to getting the tweets time history for those tweets are linked to site. Back Tweet can searches the tweets by sending the URL's of the archives, URL can enter either full or without the prefix of www. It can track how many people are talking about you, what they are saying and who are talking. 	Not easy to use for a new user in the sense of how to get input & how to provide output.
BOARDREADER [43]	Free, online tool	<ul style="list-style-type: none"> BoardReader is useful to creating the repository of searchable information for the users. BoardReader allows to users to access the multiple message boards simultaneously in the global sense. The main goal of this tool is to find out the interaction among users, human to human discussion at the web. Users can find out the answer their question from similar type interested persons. 	It provides the result for only some specific terms/topics.
BUZZSUMO	\$99-\$999/month	<ul style="list-style-type: none"> Buzzsumo analyzes the content for the best performance 	It shows the shared links of a particular topic in



[44]	14 Days trial	<p>and find out the key for the influence.</p> <ul style="list-style-type: none"> The main functionality of the software is to find out the most shared content all over the social networks and generate the analysis report, review the content and amplifying them. It also provides the comparison among the competitors. The cost of the software is 79\$ per month. 	different social networks and total shared links.
GOOGLE ALERTS [45]	Free, online tool	<ul style="list-style-type: none"> Google alerts developing the story and monitoring the company's competitors. Basically it works on emails based on the news, blogs; user can search the topics which are monitored. Users can also see the preview of the result generated from the Google alerts. 	User can select the fields (companies, movies, sports) and selects the persons for alert. Alerts send to the registered e-mail id by the Google.
GOOGLE TRENDS [46]	Free, online tool	<ul style="list-style-type: none"> Google Trends helps to compare the websites data (5 websites). It also helpful to get the visitation for the keywords and websites on the bases of geographic. Users can see the insights of the traffic of the data. 	User can see the trends of a particular topic in two ways. (interest over time ,interest by the region)
ICEROCKET [47]	Free, online tool	<ul style="list-style-type: none"> Icerocket tool is designed for the blogs to create the trend graphs. User can perform up to 5 queries over the trended graph. Facebook, blogs, web and Twitter are supported by the search tool. 	Icerocket launched in 2004 for PDA search engine.
KLEAR.COM [48]	Free to \$249/month	<ul style="list-style-type: none"> This is an analytics, monitoring social media tool which is designed for the reporting the marketing of influencers and create the relationship with the similar community in the respective field. It also used for develop the strategy for the landscape media. 	User can compare brands in the form of social account performance, Fanbase growth and Brand mentions.
KRED [49]	Free to \$999/year	<ul style="list-style-type: none"> Kred developed by the San Francisco social analytic firm people browser used for the measure of the appointment of company or people. It can determine the people's online influence or can say scoring media system. The combination of People Browser provides valuable metric for normal people for by which they follow and advice. 	User can boost their influence, connect with the communities and see their rank with the leaderboards.
MENTION [50]	\$29-\$799/month, 15 Days trial	<ul style="list-style-type: none"> Mention tool is specially designed for the alerts whether these are the types of industry, company, brand, competitors and name in the real time. A big limited of the free option in this tool. 	User can monitor company, product, person, competitor and yourself.
MENTIONMAP [51]	Free, online tool	<ul style="list-style-type: none"> Big advantage of the tool is finding out the relevant person to follow and explore the Twitter network. It provides the visualization of the Twitter data and load user's tweets, hashtags by which they are categorized into groups. 	Discovery became easier with the help of this tool.
NUTSHELLMAIL AIL	Free, online tool	<ul style="list-style-type: none"> It useful for the LinkedIn, Ning, Facebook, MySpace and Twitter. This tool is designed for the interacting, organizing and 	User can manage Facebook, Twitter, You Tube, Foursquare



[52]		monitoring to all social networks.	accounts.
OMGILI [53]	Free, online tool	<ul style="list-style-type: none"> There is no sign up required for the web and also API available for this tool. Data can fetch from thousands blogs, forums and news quickly and easily directly with live. Omgili fetch data blogs post, new stories and current discussion. 	User can see the comments, participants, source of the topic for current discussion, news story and blog post.
PLUGGIO [54]	Free to \$199.95/month	<ul style="list-style-type: none"> It includes number of tools for manage the number of accounts, publishing the targeted material automatically and enhancing the number of followers. Basically this tool designed for the marketers to enhancing the business and manages the social media profiles. 	It is supported by the Twitter and Facebook.
POSTIFIC [55]	\$7.99-\$97/month	<ul style="list-style-type: none"> It useful for the business by providing the conversations those are literally required to grownup. Postific is the set of tools by which post the content up to 10 social network sites with a single click button. It gave the super result among all over posts by analyzing and measuring them. 	User can create a Free account to manage the social network
SENTIMENT [56]	30 Days trial, 120-375/month	<ul style="list-style-type: none"> Sentiment tool also available for 30 days free trial. It is a customer service platform which helps to communicate with the customers to the brand centers with best service as much as possible. 	It used for publish, monitor, automation, report and commands & control the social media.
SHARED COUNT [57]	\$40-\$450/month	<ul style="list-style-type: none"> It supported by the StumbleUpon, LinkedIn, Twitter, Pinterest and Facebook. Sharedcount track the shares, tweets, likes by entering the URL of a page to check how much shared a particular on different social networking sites. 	User can see Free of cost Facebook, Twitter, Google+, Pinterest's parameters such as Likes, comment, shared.
SOCIALBUZZ [58]	14 Days trial, online tool	<ul style="list-style-type: none"> It also known as Social Searcher; is a real time search engine for the Google+, Twitter and Facebook. It provides the deep analytics regarding the top links, sentiment, post and domains for the marketing. Socialbuzz provides the services for the change locale, filter search on the bases of popularity and content type. 	It provides the filtering over the content.
SOCIAL LOOMPH [59]	7 Days trial, \$6.97-\$17.97/month	<ul style="list-style-type: none"> Socialloomph tool designed for time management for the tweets, drafts, twitter profile and track keywords, view mention, purge DM inbox. It also provides the personal feed with unlimited accounts. 	Only professionals plan for the Facebook, LinkedIn and Twitter. (no free plans)
TIPTOP [60]	Free, online tool	<ul style="list-style-type: none"> User can get the advice and suggestion on any topic with related to any field and suggestion of the current idea. It is a Twitter based search engine. 	This tool is designed for the business purposes.
THINKUP [61]	14 Days trial, \$5 - \$50/month(for one account)	<ul style="list-style-type: none"> It is an open source, and free web application by which user can fetch the replies, tweets, posts and friends followers from social networking sites such as Instagram, Facebook and Twitter. It is helpful to display the user's activities with the help of PHP application. User can make a database from the activity fetched by this tool and control them means publish, search and sort them. 	User can see most talkative day of the year from the social network and received a mail of this information.
TOPSY	Free, online	<ul style="list-style-type: none"> It provides the content on the bases of most influential 	It shows comparative



[62]	tool	<p>terms those are millions time used by the world whether it is domain, topic and page.</p> <ul style="list-style-type: none"> • It is a real time search engine; that shows the result on bases of searchable criteria and calculate the rank indexes and tackback the pages. 	performance of different topic in statistics format.
TWAZZUP [63]	Free, online tool	<ul style="list-style-type: none"> • It is a tool designed for the news; user can also filter the news with the help of this tool. • Twazzup helpful in finding the influence of the topic and related foundations. 	Real time monitoring tool.
TWEETDECK [64]	Free, online tool	<ul style="list-style-type: none"> • Tweetdeck provides the API to the users for sending and receiving the message and tweets, visualize the profile. 23% market shares till June 2009 used this, so the popularity of this tool easily seen by the world. • Official Twitter website used for the sharing the post by this tool is 45.7%. 	It is a dashboard management tool for the Twitter.
TWITALYZER [65]	Free, online tool	<ul style="list-style-type: none"> • It is similar to the Klout tool. Twitalizer generates one click access metrics and demographic data. • User understand why scores are declining or improving and determine key influencers connecting live event. 	It works as a checkbox and optimization for mobile.
TWITTER SEARCH [66]	Free, online tool	<ul style="list-style-type: none"> • It is a tool which provides the data that is not under the timeline means outside feeds of the world those are happening on Twitter. • The information generated with this tool is more time specific (every second). 	Quickly provides the hashtags people list and news.
WHOS TALKIN [67]	Free, online tool	<ul style="list-style-type: none"> • It is a social media monitoring tool that search for the conversation of the topic that is most important in point of view as sports team, brand name, celebrity and food. • Whostalkin also able to search and sort the data from over the 60 sites. 	Social media monitoring tool.
WHOUNFOLLOWME [68]	Free to \$29.99/year	<ul style="list-style-type: none"> • It is a service that can track the unfollower and notify with a mail or message which is automatically generated with the time schedule of every 15 minutes in real time. 	Helpful for Twitter account.
GEPHI VERSION : 0.9 beta is the latest version [70]	Free, open source	<ul style="list-style-type: none"> • It is useful to calculating the node betweenness, closeness, centrality for large networks. • It provides the visualization of the networks. 	User can download it for windows, Linux, Mac os x operating system.



IV. CONCLUSION

As per the exhaustive research these tools are come out and for a new researcher definitely helpful. There are number of tools are available for social network analysis in different-different category like free tool, paid tool, one time license, monthly/yearly plan tool, online tool, offline tool and some tool required to take the permission from the tool management team. In future this tool helpful to the researcher to take the decision related to which tool is suitable for their research work according to their need. Some tools are not working like their claim and rarely few tools are available those work properly or not provide the data as per they claim.

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