

The Implications of Social and Technological Developments in Emerging Mobile Technologies

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Abstract

Over the last few years the telephone devices have played a vital role for the communication of society. The development of cellular and mobile phones started to grow in a wide manner which resulted in other applications of mobile devices. The growth is forecasted to have a massive difference in the future. A short-term study was made and a simpler method to examine the details of the technologies and influences of mobile phones and development paths has been made out from the sources of all the information available.

The data collected is tabulated based on the current presence of technologies and forecast of technologies. The tabulation also includes the forecast of development paths. From the tabulated results it is observed that technologies will be increased in the country of United States. The U.S and Great Britain are predicted to have the 5G technology in the near future and the U.S nation may also possess robots in every homes in the future say within seven to 10years. Great Britain, India, China and Middle Eastern parts will move closer to technologies such as mobile wallet, mobile health care and 3D learning in the future. The country of China is forecasted to have 4G technology soon, next year and the Chinese will have mobile wallets in the next few years. According to the forecast done, India is predicted to launch a social network for educational purpose for students. The Middle Eastern countries may launch 4G technology similar to China. Africa will show less concentration in the development of future trends due to their famine conditions. This research is totally based on the focus of forecasting technologies and the paths of development.

Keywords

Mobile phones, forecast, technologies, development paths

1 Introduction

Communication at a longer distance became much more convenient since the invention of telephone. People were able to communicate with each other in the world with the help of telephones. In the twenty first century, telephones became a part of everyday life for a billion people. Later the development of cellular phones, cordless phones was noticed (Katz, J.E. and Aakhus, M., 2002). These were based on analog FM technology and currently mobiles are the highlight in the telephone field (Stubber, G.L., 2005). Lots of new applications have been seen in the upcoming mobiles.

Latest phones have got the feature of even watching television videos and news. Smaller and compact size mobiles with the current characteristics are becoming even

more popular and this made the public to completely move towards the mobile technology. A thorough study on the collection of the developing technologies from all the available sources and forecasting even the minute technologies used in each development are done. Also a detailed study of various impacts such as the social, economic and political impacts of the mobile technologies is discussed.

1.1 Technological Forecasting

Technological forecasting is a prophecy of the forthcoming features of convenient technologies, methods or developments. In a period of prompt technological amendment, the corporate procedures should be related to the complete estimate of future technology. Recognized logical techniques are accessible to aid people to formulate sensible predictions of technology. The estimates arranged by these approaches can be freely elucidated to others and are more tolerable to non-technological administrators. The forecasters study about the machines, techniques, functions and processes involved in a developing application. (Martino, P.J. 1993)

1.2 Current Mobile Technologies

The two main booming technologies in the present world are internet and mobile devices. Wireless technology is in the range of conflicting systems. This technology is present from ancient age to communicate between the computers without wire. The most common wireless technology is Wi-Fi, Bluetooth, Infrared and Wi-Max (Dhawan, 2007). Mobile banking offer channel to perform services online in mobile devices. According to You et al (2006), a mobile robot based on Bluetooth expertise is surprising the current mobile technology world. The healthcare industry helps in getting the benefits of telemedicine. Growth will be observed in the UMTS and mobile Internet based m-Health systems (Istepanian, 2003). Latest improvement in mobiles has directed to the residence healthcare application.

1.3 Forthcoming Technologies

The PC or laptops do not have Intel inside; instead they possess a chip devised by the Cambridge. This chip is called the ARM (Kelly, 2011). JANET 3G, permits educational and inspire staff to contact dynamic sources as study facts, computer-generated learning surroundings and reference library collections on the move (Turner, 2011). Mobile Cloud Computing denotes to an arrangement where both the data storing and data device happen outside the mobile device (Perez, 2009). Blackberry is all set to introduce a fresh tablet known as the Playbook (McInnes, 2011). The latest surprise for the mobile field is that the Vodafone Company is all set to launch its new mobile phone- Vodafone 555 Blue. A new application for mobile devices has been developed by the NASA. This application will be available only on mobile phones based on Android. Online shopping technique was introduced for the people to feel convenient and easy with shopping goods and it was welcomed by the society. Following this there is development of mobile shopping. Technology has developed so much that human brain can be closely duplicated by a microchip.



Figure 1: BlackBerry PlayBook tablet (McInnes, 2010)



Figure 2: NASA's application (Warman, 2011)

2 Methodology

The methodology adopted in this is the qualitative research method in which all the data about the various mobile technologies are collected. The information is collected based on the focus of mobile technologies and various influences of countries in the forthcoming years. In this project, the influences such as the Political, Economic and Social for few countries in the future years are discussed of few nations.

3 Countries in the Future

3.1 China

Housing is dominant in the country's revenue. The income of the nation is growing high and is believed that the economy of this country is large than America since few years. The private economy is developing significantly. The citizens of China are no aliens to entrepreneurship. The administrators and officials of China concentrate and focus on next few decades. The country has also decided to turn away its future funds and assets from the United States and wants to make sure of the welfare of China's money possessions. The earnings in the metropolitan cities of China are very high when compared with the earnings in the rural area. It is predicted that only after few years, a reasonable sharing of the incomes will be provided to the citizens. The country also has substitute for Facebook, the social network called Renren. This website has nearly 5million customers each month.

3.2 United States

IT system has turned out to be a part of predictable insight. There are disputes going over the grade of the administration of America. The discussion was on the American government liability indicating that there is a one in three possibility downgrade in America's credit ranking by 2013. The United States of America has a sluggish economy and unemployment is seen around 9% and the housing market is almost crushed. It is predicted that China will surpass the largest economy, America. It is also forecasted that in the end of this century (Gardiner, 2011). This forecast was based on the debt crisis of the United States. It is also predicted that Sarah Palin will

be the next president. The Google+ site will be improved with the installation of gaming which will help them to gain more users.

3.3 India

It has been said that the country has not succeeded in controlling bribery, corruption and public borrowing, gone behind on infrastructure and proven powerless to make conclusions. The country is under corrupted administrations when it comes to political. The busiest metropolitan of Indian nation is the Mumbai city. The administration has announced to launch the new development plan (DP) in 2016. The city of Rajasthan will launch a social network which will comprise of education and theory learning stuffs for kids (Economic Times Tech, 2011).

3.4 United Kingdom

The growth is getting flattened. The downgrade is due to the suspension of work of the top carmakers. The government will upgrade the rail system by launching a coastline from Great Western and east coastline. Modifications in nursing sector and television sector will be seen in the following years.

3.5 Africa

The economy is going down with famine and drought. There is no proper trade and activity in the continent. Millions and millions is been lost by some Mobile Telecom Corporations and unlawful lotto workers. The society of the continent is totally in a bad state. The disabled persons are ill-treated and not considered. Another factor threatening the society of the continent is raping of women and slavery is increasing too. With all this, poverty is haunting the continent and assistance is needed for the people.

3.6 Middle East

The economy of Middle Eastern part depends on the exports of lubricants to other countries. Patriarchal economy is taken place in the countries. The nations of the Middle Eastern parts are set to get the approval of overseas trading in the future. Arabism is undertaken in terms of management. Construction of hotels and restaurants will be in the future by the government the administrations believe that this will enhance the growth of the nations. The nations lack in education and learning. It is predicted that there will be measures taken in the future for improving education.

4 Results

From the tables shown in figure 3 it is observed that China will be the leading economy in the near future and politically strong too. The United States of America is forecasted to go down economically and the government will launch employment plans for the growth of the nation. In terms of economy, India is stable and ready to purchase technologies. Politically the country is under corruption and terrorism. United Kingdom is predicted to slow down in future and government will take

measures to bring down recession. Similar tabulations have been done for Africa and Middle Eastern countries. Africa is the one which is sluggish and is forecasted to decline in future. Middle Eastern parts are forecasted to concentrate on innovation and increase their economy. So the overall view is that technology is predicted to develop more in the countries with the support from the administrations of countries.

CHINA



	ECONOMY	POLITICAL	SOCIAL	TECHNOLOGIES
PRESENT	Production is high in China which the foremost plus for the nation	Politically the country has good relationship with the United Nations	There are currently no access to social webs such as Facebook, Twitter and Google+	Currently China is not concentrating more on technology yet it tops the list of supercomputers
	Exports (porcelain) are more to North America and Europe	Both China and America are recently tied up with few combined declarations	At present there are availability of domestic webs- Renren and Weibo	3G technology available
	GDP is currently 9.28%	The government is involved in world peace-making which makes it politically strong by having better bonding with other nations		No much improvement in the field of technology
FUTURE	The debt crisis of Europe will affect the future economy of China	Inspite of the declarations the Chinese government may cancel their exports with America due to the debt crisis of U.S	People will use more mobiles than the computers in the future	Robot workers will be seen in the future
	The future GDP Of the nation will be nearly 19 billion in the next few year	There will be more exports to other nations possibly India	More population and less farming will be done	Version 3 and Version 4 of Bluetooth will be available
	China will overtake the United States in the following future and will rank as the No.1 Economy	Production will be increased more		4G technology will available in future

Figure 3a: China

UNITED KINGDOM			
	ECONOMY	POLITICAL	SOCIAL
PRESENT	The economy is slowing down and losses are observed	Government is failing to avoid unemployment	People move towards technology
	Top car makers suspended employments which affects the economy	Currently the government's age for pension is 65	Current population is high
	Additional bank holidays and the Royal Wedding which included spending affected the economy	The management has not worked on the rail transport system to few cities	Social networks are used majorly in the nation
	Investments in the forthcoming Olympic games is also one of the reason for the slowdown of growth	No preventive measure taken for economic losses	Wiring television available in the nation
FUTURE	Few measures like the adult education is predicted to happen for the betterment of ecology	As outcome of private divisions, forecasting is that there may be employments of around 2.5million in the future	Climatic changes will lead to numerous deaths of people in future
	It is forecasted that the measures will be taken to withstand the changing weather conditions which reduces the growth	The management will cut electricity to the cities of England in the next few years	Population will increase more than current
	Recession will be seen in the near future	The government will shut down the coal power plants in the country of Britain	Nursing sector will get modified in the future
	The bank of England will cut charges in interest in the future and HP will buy autonomy which will enhance the economic growth	The age of pension is raised to 66 by the administration and will be under implementation in the future	Digital television will be launched in the future

Figure 3b: UK

INDIA

	ECONOMY	POLITICAL	SOCIAL
PRESENT	The country has gone down by a tenth dollar this year in stock markets	India is undergoing terrorism and	Poverty and scarcity is found common in the nation
	Cement, Property and construction has faded in their turnovers	No examinations taken by the members of parliament before nomination	Currently the nation is one among the top five countries in terms of population
	Rubber and tyres give good turnovers	BJP and Congress parties are in war and do not take any steps for the nation's growth	All the social networks such as Facebook, Twitter and LinkedIn are available
	Few states like Gujarat offer good economy to the nation by farming	Corruption and bribery is haunting the nation	4G technology is absent
FUTURE	China and few countries will agree to export goods to India	Terrorism will be more in future	It is predicted that the poor and needy will be given assistance and poverty will be eliminated
	Few short term and long term growth measures will be taken in the future for improvement of economy	It is expected that be that the members will take the examination before nomination in the future elections	Increase in population will be seen in the near future and it is forecasted that India will overtake China in population
	The Reserve bank will increase the main charge of interest by 25	Steps will be taken to eliminate corruption and bribery	Development of new social webs for education is predicted to happen in the following years
	The economy due to farming is predicted to increase by 6 to 7%	Predictions are that there will be new development plans for the political betterment of the nation	Huge number of internet users will be from India in the future

Figure 3c: India

UNITED STATES

	ECONOMY	POLITICAL	SOCIAL
PRESENT	Though known to be one of the strongest economy, recession taking place currently	Government is not taking steps for controlling recession and downgrade	The richest people of the world such as Bill Gates and few others are residents of this nation
	Currently debt crisis in the nation	Management is slow even in approving civil agreements which is one of the reason behind slowdown	Citizens offer 12.4% of their earnings to the country
	Current GDP -1.8%	Republicans and Democrats are in war	Overcrowding and accommodation is bringing down the economy
FUTURE	America will be surpassed by China.	Forecasted that Sarah Palin will be the next president	It is predicted that funds will be provided for the middle class citizens in the future
	The GDP is forecasted to go down due to debt	The administration of United States is expected to come to an end in next few years	The overcrowding transportation is predicted to get lessened by effective circulation of goods
	Universal economy strategies to be revised in the future for the economy to function	Measures should be taken by the management to sustain the agreements with other countries	In the following few years, it is forecasted that there will be modifications in the women's health care system
	The slowdown of economy will affect the whole global economy in future	Overall it is forecasted that the nation will go down in the next few years	The Google+ site will be improved with gaming in the near future

Figure 3d: United States

From figure 4, it is observed that America will top the list in the development of technologies followed by India, China and Great Britain. These nations are forecasted to concentrate more on technologies in the following future. Africa will be slowing down and will not show development in innovations.

COUNTRY	CURRENT TECHNOLOGIES	FORTHCOMING TECHNOLOGIES	REFERENCES ON FORTHCOMING TECHNOLOGIES
CHINA	<ul style="list-style-type: none"> • 3G technology • Mobile learning • Mobile banking • e-learning • e-health 	<ul style="list-style-type: none"> • 4G technology • Mobile wallet 	<p>China has got hold of an arrangement to launch 4G. See Alex., (2011)</p> <p>Country of China will possess the mobile wallet technology in the following future. See Tan. F., (2011)</p>
UNITED STATES	<ul style="list-style-type: none"> • 3G technology • 4G technology • Mobile wallet • Mobile learning • e-health • Playbook 	<ul style="list-style-type: none"> • 5G technology • Robots in office and home • Walt Disney Mobile for Kids 	<p>Apple will launch the 5G technology in the American nation in a short span. See InfoBarrel, (2011)</p> <p>The students from Cornell University have developed an algorithm for the robots to recognise objects and is predicted that it will be launched in the U.S in future. See Aron. J., (2011)</p> <p>The Walt Disney will launch a mobile package for kids in the following future. See Baig. E. C., et al (2006)</p>

Figure 4: Part of the final table

5 Discussion

From the results and analysis done, China is a country which concentrates more on production and ranks as one of the top economies in the world. In terms of production the nation of China tops the list. In United States, technologies and resources emerge from the American nation's production. Known as one of the strongest economy of the world, the government is strong in enhancing the growth as well increase the use of technologies. India is mutually developed in both technology and economy. When it comes to Africa, the continent is totally down at present and is difficult for them neither develops nor purchase technologies in the future. The countries of Middle Eastern part do their living on fuel and lubricant resources.

5.1 Future Work

With the technologies budding almost every day, more information can be gathered on technologies. This research is wide ranging and future research can be done by adding every day updates on technologies and statuses of the countries on a website. Any student or researcher who wishes to continue this research with designing a website must know the idea of technological forecasting.

The researcher can have fields such as technological forecasting, present technologies in world and the influences of nations in world. The researcher should be skilled in website programming languages for designing the website. Furthermore, there can also be addition of an option for a small survey link so that users can drop in their ideas and expectations on how technologies should be in the future. With this readers can gain information more easily instead of searching for information on each country. The society will be aware what's new in their nation. Technological forecasters can be active on this website, to know the expectations of people and can fulfil the expectations.

6 Conclusion

From the research and the results it is forecasted that the technologies which will be available for the people in the future are mobile wallet, mobile shopping, mobile healthcare, Facebook phone, social website for education, 3D learning, data miming and chip replicating human brain. It is forecasted that they may be presence of robots in each home and office in the future.

From the results, it is also observed that China will be the top among the nations in the world. The production of china will increase more which will lead the country to top the list the list. The United States of America is expected to be surpassed by China in the future. Economically the gross domestic product is forecasted to go down due to the debt crisis of the nation. Indian nation will have goods and trading from other countries like China in the future. The economy of the country will enhance by farming. The political leaders will upgrade few short and long term goals for the betterment of education in the future. There will be more terrorism in the future. The country of Great Britain will move closer to recession in terms of economy and is predicted that there will be measures taken to withstand the factors affecting the economic growth. The continent of Africa is predicted to go down economically and the gross domestic product will remain the same as the current. It is forecasted that the economic growth may be likely improved with the incomes from mining. The Middle Eastern parts of the world are predicted to set overseas and abroad agreements in future. This may improve the growth of the countries in future.

From the development paths of the countries taken in research, Africa, India and China are predicted to enjoy the facility of 4G technology in the future. The countries of United Kingdom and United States will go one step ahead and will launch the 5G technology. The nations of Middle East are predicted to have 4G technology and mobile wallet in the future.

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