

# Development opportunities in the Internet era

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With the widespread use of the Internet, the economic, cultural and political activities of people are no longer constrained by time or space. This further shortens the distance between people around the world, and brings development opportunities to various stakeholders.

Below demonstrate the nine question types related to **development opportunities in the Internet era**:

<p style="text-align: center;"><b>Reasons / Factors</b></p> <p>Identify and explain the <b>reasons / factors</b> why the Internet brings development opportunities.</p>	<p style="text-align: center;"><b>Impact</b></p> <p>Explain the <b>impact</b> that popularization of the Internet might have on people’s lives.</p>	<p style="text-align: center;"><b>Difficulties / Barriers</b></p> <p>Identify and explain the <b>difficulties/ barriers</b> in using the Internet in some regions.</p>
<p style="text-align: center;"><b>Values</b></p> <p>How do <b>values</b> of different stakeholders affect the popularization of the Internet?</p>	<p style="text-align: center;"><b>Making Suggestions</b></p> <p><b>Make ‘Suggestions 1, 2, 3’</b> to enhance the popularization of the Internet.</p>	<p style="text-align: center;"><b>Evaluation</b></p> <p><b>Evaluate</b> the effectiveness of <b>‘Suggestion 1’</b> in enhancing the popularization of the Internet.</p>
<p style="text-align: center;"><b>Stakeholders’ Perspectives</b></p> <p>What might be the <b>value conflicts among the stakeholders</b> on using the Internet?</p>	<p style="text-align: center;"><b>Justifying Stance</b></p> <p>‘The popularization of internet will improve the quality of life of people in the globe.’ <b>Do you agree</b> with this view?</p>	<p style="text-align: center;"><b>Making Comparisons</b></p> <p>Is ‘Suggestion 1’ <b>more effective</b> than ‘Suggestion 2’ in enhancing the popularization of the Internet?</p>

## Reasons / Factors

**Focus**

Identify and explain the reasons why the Internet brings development opportunities.

	Argument	Explanation	Example
Reason 1	The Internet has provided a way to get in touch with places around the world	Countries can make use of the global coverage of the Internet to help their local industries reach potential business partners and consumers all over the world. This can facilitate the advancement of local industries and economic growth, so countries can increase their international status.	<b>Promotion of tourism:</b> The tourism boards of different countries have set up official websites or fan pages on social networking sites. By making use of the Internet with global coverage, they promote their local features and tourist spots to tourists all over the world. This attracts more tourists, which is favourable to the development of local tourism.
Reason 2	The Internet has lowered the promotion cost of enterprises	Enterprises can promote their products or trade with their customers through the Internet. As the Internet has a wide coverage and the costs involved are low, they can increase their sales volumes and lower their operational costs with the aid of the Internet, leading to an increase of their profits.	<b>Development of online retail business:</b> Amazon from the US is the world's largest shopping website selling products, like books, DVDs, and electronic appliances. As Internet access is common, the sales model of enterprises has changed. They can reach more potential customers and increase their profits. It also promotes online shopping.
Reason 3	The internet has sped up the efficiency of cooperate promotions	When companies advertise on the Internet, they are not censored as in other media such as television, radio, and newspapers. It speeds up the efficiency of corporate promotions and can bring the latest information to consumers quickly.	<b>Online fan page:</b> Nowadays, many companies set up their own online fans page on social media. Setting up these pages is free of charge. Companies can publish the latest product information on their own pages anytime and anywhere, so that they can promote new products rapidly.

## Values

**Focus**

How do values of different stakeholders affect the popularization of the Internet?

	Argument	Explanation	Example
Value 1	<b>Prioritizing the overall development of society</b>	The government focuses on the long-term development of the society as a whole and the method to utilize the Internet to increase competitiveness. Therefore, policies are implemented to promote the popularization of the Internet.	<b>Internet support policy in Hong Kong:</b> In order to promote the popularization of the Internet, the Hong Kong government has implemented the ‘I Learn At Home’ online learning support program to support students from low-income families to study online at home by providing assistance to eligible families to acquire affordable computers and Internet services.
Value 2	<b>Prioritizing commercial interests</b>	The gaming industry follows the impact of the Internet on their product development models closely. Therefore, they will also use the Internet to support their product development and gain new business opportunities.	<b>Online game industry:</b> Nowadays, many gaming companies have developed online games on platforms, such as smart phones and computers, to allow players around the world to play together and exchange ideas on a same platform over the internet. They can therefore profit from advertisements and player’s payments.
Value 3	<b>Prioritizing peer interaction</b>	Nowadays, young people use the Internet mostly for communication. In order to merge into the social circles of their peers, they use these online social platforms very often and therefore increase the popularity of the Internet.	<b>The use of the Internet by young people in Hong Kong:</b> Hong Kong young people spend an average of 20 hours a week on the Internet, mainly on social network sites. They browse the social media primarily to keep in touch with friends and family so as to meet their social needs.

## Stakeholders' Perspectives

Focus

What might be the value conflicts among the stakeholders on using the Internet?

	Argument	Explanation	Example
Conflict 1	Value conflict between enjoying personal enjoyment and prioritizing security issues	The Internet is flooding with various types of information. Affected by online trends, young people may take up some online challenges to seek excitement. Parents are also worried about whether their children will be affected by bad people and commit behavior that is harmful to themselves. This will cause conflicts between the two parties over the use of the Internet.	<b>Blue Whale Challenge:</b> Blue Whale Challenge is a recent trend on the Internet, which requires participants to perform various self-abusing tasks and eventually induce participants to commit suicide. The excitement of the game is welcomed by some young people all over the world, but it also raises awareness over the safety of the Internet among parents.
Conflict 2	Value conflict between emphasizing commercial benefits and prioritizing intellectual property rights	The popularity of the Internet has speeded up the circulation of information. Some companies have made use of the widespread audiences of the Internet and obtain commercial benefits by uploading different entertainment products to attract clicks and downloads. However, these companies have caused dissatisfaction among media creators because the behaviors of these companies often infringe their intellectual property rights. There are conflicts of value between the two parties over the use of the Internet.	<b>Dispute on music copyright:</b> In 2018, Spotify, an American streaming music platform, was accused of copyright infringement by music publishing company Wixen Music. Wixen Music claimed that Spotify has used more than 10,000 songs without obtaining their copyrights. Wixen Music demanded a compensation of USD\$1.6 billion.

## Impact

Focus

Explain the impact that popularization of the Internet might have on people's lives.

	Argument	Explanation	Example
Impact 1	Changing the pattern of information reception and transmission	Not only can people receive the latest information from places around the world through the Internet, but they can also send out information to the world. The pattern of information transmission has gradually changed from one-way to two-way.	<b>Online publication:</b> Many people release their publications on various social networking platforms. For example, they publish articles on Facebook, or upload creative videos to YouTube. By doing so, people can show their talents to the world and receive widespread attention instantly. Some of them even become Internet celebrities.
Impact 2	Changing people's consumption pattern	Through online shopping, consumers can complete the transaction with electronic money and buy products from around the world while staying at home. This is more convenient and even cheaper than shopping at physical shops. Hence, people do online shopping more often, changing the past consumption pattern.	<b>New record-high online sales:</b> Merchants on Chinese online shopping platform Tmall are brands with physical shops, such as electronic appliances retailer Suning and smartphone producer Xiaomi. The sales volume of Tmall during the Double Eleven Shopping Festival rises year by year. In 2017, the total transaction on that day was RMB168.2 billion, 40% higher than that in 2016. This shows the change in the consumption pattern, of which more and more consumers shop online to buy products that are also available in physical shops.
Impact 3	Changing people's communication pattern	The Internet breaks the boundaries of time and space. Through online social platforms, people in different places can communicate with each other. Therefore, the communication patterns of people are changed.	<b>Making Online Friends:</b> With the rise of the Internet, people can communicate with other users from all over the world on online social platforms, such as Facebook and Twitter. They can also make online friends. In 2017, the number of Facebook users exceeded 2 billion and the number of Twitter users was 328 million. Countless Netizens are using these platforms to make friends all around the world.

## Difficulties / Barriers

**Focus**

Identify and explain the difficulties in using the Internet in some regions.

	Argument	Explanation	Example
Difficulty 1	<b>Inadequate infrastructure in society</b>	Good network communication equipment, such as electronic products with Internet functions and network receivers, are required to connect to the Internet. However, in poor areas and in areas where technology is limited, it is difficult for people to obtain the relevant hardware. Therefore, the use of Internet is difficult in the absence of basic equipment.	<b>Development of science and technology in Africa:</b> African countries are mostly developing countries. Although countries, such as Kenya, Egypt, Nigeria, and South Africa, have developed more advanced mobile technologies and some emerging countries, such as Algeria, have also started to develop 3G technologies, the penetration rate of smart phones and mobile online services in African and that in developed countries still have a huge gap. The popularity of the Internet is also still low.
Difficulty 2	<b>Lack of technological knowledge of users</b>	The Internet is an information technology that has only emerged quite recently. Unlike traditional industries, some people in relatively backward areas and those with a low level of education may not understand the use of the Internet due to the lack of basic scientific and technological knowledge. The use of the Internet is difficult for them.	<b>Internet Usage Statistics in Rural China:</b> The 2015 Internet Development in Rural China Research Report pointed out that the ratio of non-Internet users in rural and urban China was 37.7% and 62.3% respectively. Among the non-Internet users, 60% did not use the Internet due to a lack of knowledge on computer or the Internet. It shows that basic scientific and technological knowledge is an important factor influencing the application of the Internet.
Difficulty 3	<b>Restrictions from the government through blocking and monitoring</b>	In order to maintain social and political stability, the governments of certain regions may block foreign websites or keywords and also monitor the use of the Internet by their people. This greatly limits people's freedom to use the Internet.	<b>Internet censorship in China:</b> In the mainland of China, the government censors online activities or website content to filter out and remove non-standard content. On the other hand, the Chinese government also blocks a number of foreign websites and uses firewall to prohibit mainland residents from browsing the contents of these websites. As a result, Chinese Internet users cannot use the Internet freely.

## Making Suggestions

Focus

Make ‘Suggestions 1, 2, 3’ to enhance the popularization of the Internet.

	Argument	Explanation	Example
Suggestion 1	<b>Improving technological equipment</b>	Governments and enterprises can provide technological equipment for poor or backward regions, as well as increase the coverage of network, so that local people have the opportunity to access the Internet and thereby increasing the popularity of the Internet.	<b>Microsoft Internet Cooperation Program in the US:</b> In 2017, Microsoft cooperated with telecom service providers in 12 states and rural areas in the US with a plan to provide high-speed Internet access to nearly 2 million rural residents in America in the next five years and thereby improving the internet access situation in rural areas. It can help to increase the popularity of the Internet in the US.
Suggestion 2	<b>Raising the technological knowledge level</b>	The Government can implement plans to raise the technological knowledge level of older people or people with low education level by letting them use the internet. This will eventually promote the use of internet to people with different educational backgrounds and age groups.	<b>ICT Programmes for Elderly:</b> The Hong Kong Government has launched the ICT Outreach Programmes for Elderly to educate the elderly on the use of communications software and the Internet. Computer lending service is also provided to encourage the elderly to learn to use the Internet and thereby increasing the popularity of the Internet among the elderly in the long run.
Suggestion 3	<b>Pressure from international community</b>	The international community can exert pressure on governments on human rights ground and urge them to open up the Internet, so that citizens can use the Internet freely and more effectively. This can attract more “netizens” to join the Internet, and thereby promoting the popularity of the Internet.	<b>The internet boycotting governments:</b> In 2017, Wikipedia shut down its Russian website to protest against the Russian government for further tightening the monitoring on network services. At the beginning of the same year, the English Wikipedia website and other US websites, as well as some technology companies, also took part in the boycott of the US government in order to protest against two anti-piracy bills passed by the US Congress. These actions can improve the quality of Internet services in the long run and attract more people to use the Internet.

## Justifying Stance

Focus

‘The popularization of internet will improve the quality of life of people in the globe.’ Do you agree with this view?

Stance: Agree

	Argument	Explanation	Example
Argument 1	Promoting diversified culture	Many popular cultures, such as the entertainment industry, have a certain degree of attraction and social penetration for people of different ages. The Internet can break the boundaries of time and space and can therefore promote cultural output and cultural exchanges by introducing different foreign cultures to audiences. Therefore, it can improve the quality of life of people around the world.	<b>Netflix:</b> Netflix is one of the largest online streaming video platforms in the world. In addition to playing TV shows from different regions of the world, Netflix also produces original dramas that are affiliated with different cultures. This helps users to understand the politics and culture around the world and promote cultural diversity. Therefore, it can improve the quality of life of people around the world.
Argument 2	Promoting commercial activities	The rapid development of Internet technology has led to the development of innovative trading operations. With the free platforms of communication on the Internet, anyone can become a buyer or seller. By providing people all across the world with new trading opportunities, the internet can improve the quality of life of people.	<b>C2C (consumer-consumer) transactions:</b> On e-commerce platforms such as eBay, Taobao, or Carousell, anyone can sell or buy new or second-hand merchandises and the users are also from all over the world. Among these platforms, Taobao is even known as “the largest Online marketplace in China”. On these Internet platforms, other than the cost of the merchandises, the users can open online stores or sales accounts without any cost. The freedom for the general public to participate in commercial activities is greatly promoted, so the quality of life of people around the world is also improved.
Argument 3	Promoting global communication	The emergence of the Internet has accelerated the global flow of information. In the past, Web 1.0 only provided default information for people, but the interactive mode of Web 3.0 now brings people an interactive communication platform that is not limited by time and space. Therefore, the internet can enhance the quality of life of people across the world.	<b>Instant messaging applications:</b> Instant messaging applications such as Whatsapp, LINE, Skype etc., provide users around the world with real-time, cross-region video chat or text messaging services that can overcome the restriction of time and space. Friends and families can communicate and exchange information in real time and therefore the quality of life of people around the world is improved.

Stance: Do not agree

	Argument	Explanation	Example
Argument 1	<b>Promoting a bullying culture</b>	Under most circumstances, people do not need to use their real names when using the Internet, which contributes to the trend of online bullying. The bullies are also not easy to expose. The Internet promotes a bullying culture and therefore threatens the quality of people's mental wellbeing.	<b>Cyber-bullying:</b> Online bullying is common in all parts of the world. The number of US middle school students who committed suicide continued to rise in recent years. It has doubled between 2007 and 2014, and cyber-bullying on the Internet or social media was identified as the cause. Cyber-bullying creates psychological damages to the victims and may even lead to suicide in serious cases. It shows that the Internet poses a threat to the mental health of people.
Argument 2	<b>Encouraging technological crimes</b>	One of the characteristics of the Internet is that people can communicate without face to face contact. Therefore, some criminals can make use of this feature for cross-border online fraud. As the Internet may contribute to technological crimes, it may fail to improve the quality of life of the people around the world.	<b>Online fraud:</b> There are several types of cyber fraud, including personal data leakage, online trading fraud, and internet communication fraud. The crime scale can be transnational. In 2017, the Hong Kong Police crashed down a transnational love scam involving African-Americans hiding in Malaysia. This shows that the Internet has regulatory and security issues that may harm the interests of people around the world.
Argument 3	<b>Encouraging the infringement of copyright</b>	The speed of Internet transmission is fast, and with the features of Web2.0 and even Web3.0, anyone can upload or download online information. This leads to serious problems with the infringement of copyright, which hinders the development of cultural and creative industries. Therefore, the internet fails to improve the quality of life of people around the world in the long run.	<b>The problem of piracy on the Internet:</b> Since the emergent of the Internet, the problem of piracy has been a source of complaint among cultural or media creators. In 2012, US file-sharing website Megaupload was accused of illegally downloading millions of videos and music and was closed by the US government. It shows that the Internet contributes to online copyrights infringements and is harmful to the development of the cultural industry. Therefore, the internet may not be able to improve the quality of life of the people around the world.

## Evaluation

Focus

Evaluate the effectiveness of constructing infrastructure ('Suggestion 1') in enhancing the popularization of the Internet.

Stance: Effective

	Argument	Explanation	Example
Criterion 1	<b>Fundamentality</b>	Improving technological infrastructures in the region can fundamentally create opportunities for local residents to use the Internet and provide them with the necessary hardware and conditions for accessing the Internet. Therefore, it can effectively promote the popularity and development of the Internet.	<b>The Africa Internet for All Programme:</b> The theme of the 2016 World Economic Forum Africa Summit was "Connecting African Resources through Digital Transformation". It pointed out that Africa's priority is to be fully electrified in order to further promote digital technologies and make the Internet more accessible to African people. It demonstrates the importance of technology infrastructures to the development of the Internet.
Criterion 2	<b>Timeliness</b>	Internet technology is changing. Good technological infrastructure is helpful for a region to catch up with technological trends. In terms of timeliness, it can be the foundation to facilitate the long-term development of the Internet in the region.	<b>Six major trends in the Internet industry of China:</b> At the beginning of 2018, the Internet Society of China released the six major development trends of the Internet industry in China, including "new technologies", "new energy", "new scenarios", "new experiences", "new challenges" and "new ecology", which involve the construction of networks to drive the 5G industry, the cooperation of the manufacturing industry and the Internet industry, and the smart technologies that generate new consumer experiences etc. It shows that the developmental potential for the Internet is very big and that good technology infrastructures are required to support the development.
Criterion 3	<b>Overall social needs</b>	Improving regional technological infrastructure can enable the Internet to penetrate into more backward and remote areas, so that people in these areas can also access the Internet due to available network coverage. This can drive the Internet development in the region.	<b>Promotion of full Internet coverage in rural areas by the India government:</b> There has been a huge gap between the urban and rural areas in India in terms of digital development. In this regard, the Indian government announced in 2017 that affordable high-speed Internet throughout the country will be built in 2018, covering more than 150,000 villages and 250,000 village committees. With the use of these network facilities, the rural areas will be able to attain a certain level of Internet development.

Stance: Not effective

	Argument	Explanation	Example
Criterion 1	<b>Fundamentality</b>	Most of the Internet's utilities are based on the practical helps on users' life, for example online shopping. However, even if developing countries can develop the relevant infrastructures for the Internet industry, they cannot maximize the effectiveness of the Internet if other infrastructures are not developed. This will hinder the development of the practical applications of the Internet in the long run.	<b>Failure rate of online shopping in Africa:</b> As the Internet begins to emerge in Africa, there is a potential to develop online shopping. However, online shopping relies on the delivery of merchandises, which depends on the logistics industry and transportations. The operations of many post offices in Africa are paralyzed or semi-paralyzed, while courier companies use motorcycles that are expensive but less efficient to deliver goods. This deters remote residents from shopping online and the Internet fails to make life more convenient effectively.
Criterion 2	<b>The cost and risks of investment</b>	The development of the Internet industry requires a lot of capitals, which the local companies in developing countries may not be able to afford. In addition, the unstable social and economic environment in developing countries increases the risk of investing on the Internet. This is the major obstacle for founding companies in developing countries and thus it is difficult to introduce technologies and the relevant infrastructures into these countries.	<b>The cost of Internet networks in Africa:</b> In Africa, the cost of the Internet is relatively high in the absence of electricity. In addition, the economic environment is unstable in Africa due to the wars. The operation of e-commerce is also often affected, so the people do not trust the market. These environmental factors induce risks in the costs and investments, making it difficult for the governments or commercial enterprises to develop the Internet industry and introduce technologies and the relevant infrastructures into these countries.
Criterion 3	<b>Feasibility</b>	Governments in developing countries have improved Internet infrastructures in order to apply the Internet onto traditional rural industries, so that they can form deeper connections with bigger markets and promote economic activities. However, the knowledge level of practitioners in traditional rural industries may not be sufficient to cope with the complicated data transmissions. Therefore, even if the rural technology infrastructures are improved, the Internet may not be effectively utilized.	<b>'Internet + Agriculture' policy in China:</b> At present, the Chinese government promotes the "Internet + Agriculture" policy and the establishment of network infrastructure to integrate Internet technology into agricultural production chains. However, rural residents are mostly basic Internet users. They only use the Internet for entertainment purposes and lack the knowledge of Internet technologies. Therefore, it is difficult to rely on these Internet users to apply the technology on production operations even with technology infrastructures available.

## Making Comparisons

Focus

Is improving infrastructure (‘Suggestion 1’) more effective than promotion and education (‘Suggestion 2’) in enhancing the popularization of the Internet?

Stance: Agree

	Argument	Explanation	Example
Criterion 1	<b>Fundamentality</b>	Improving technological infrastructures allows basic access to the Internet by the public, which is a step ahead of the discussion on how to utilize the Internet. Therefore, improving technological infrastructures is the fundamental start of the development of the Internet in developing countries. It also allows people to apply their scientific and technological knowledge in real life. Therefore, in terms of fundamentality, it is more effective than promotion and education in enhancing the development of the Internet in developing countries.	<b>Internet integration technology in rural areas in the United States:</b> Currently, half of the farmers in the United States have Internet access technology that allows them to control the operation of the farms through computers. They can also check the daily weather condition, the futures market condition, and liaise with international food export companies. The operation of these integration technologies does not only require individual scientific and technological knowledge, but also the overall technological infrastructures and equipment (such as the use of satellites for international communications). It shows that the improvement of technological infrastructures can fundamentally improve the development of the Internet in a country effectively.
Criterion 2	<b>Timeliness</b>	In the long run, technological infrastructures lay the foundation of Internet technology in a country, allowing scientific and technological knowledge to be applied at a practical level. Although promotion and education can also enhance the knowledge level of the public, it is a relatively slow method and requires the support of infrastructures to effectively enhance the development of the Internet.	<b>Network infrastructure in African countries:</b> African countries face the problem of cable theft. For example, South Africa loses US\$500 million to cable theft each year. Under these circumstances, Internet companies have to rely on wireless network transmission that is more expansive, so they cannot apply better Internet technologies. It shows that infrastructure is necessary for the applications of Internet technology and is very important for the sustainable development of the Internet in a country.

<b>Criterion 3</b>	<p><b>Feasibility</b></p>	<p>For developing countries, raising the country's technological knowledge level requires huge amount of resources that may not be affordable to the governments. The cost for the public to purchase technology equipment is lower than that of receiving relevant education. Therefore, in terms of feasibility, improving the technology infrastructures for the people is more feasible than improving their knowledge level.</p>	<p><b>Smart phone penetration rate in Africa:</b> In Africa, despite relatively low education level in many countries, the penetration rate of smart phones has rapidly increased, among which the use of mobile phone produced by China has increased by 30%. The cheap non-standard mobile phones produced in China enable people in developing countries to purchase these devices and allow them to use the Internet at a low cost. In terms of feasibility, it is better than raising the level of the technological knowledge level in these countries.</p>
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Stance: Do not agree

	Argument	Explanation	Example
Criterion 1	<b>Timeliness</b>	Although the improvement of technological infrastructures can increase the popularity of the Internet among the general public, technological talent is a necessary asset in terms of long-term technological development. Through the research and development of new technologies, the continuous development of the Internet can be achieved. Therefore, it is more effective to enhance technological knowledge in order to enhance the development of the Internet in various countries.	<b>5G technology:</b> At present, many network operators and higher education institutions are dedicated to the development of 5G technology. For example, China's three major telecommunications operators (China Telecom, China Mobile, and China Unicom) plan to apply 5G technology in commercial use in 2018 and commit to realize large-scale commercialization of 5G in 2020. It shows that updating Internet technology is a world development trend and the scientific and technological knowledge in the country is required to support this trend.
Criterion 2	<b>Flexibility</b>	Improving large-scale technological infrastructure requires the involvement of big enterprises or government resources, but raising technology knowledge level is a more flexible approach. It is easier to achieve through economics and trade cooperation in the private sector and is also easier to implement, so it can effectively improve the development of the Internet in various countries.	<b>Hong Kong Science Park:</b> The Hong Kong Science Park is located in Tai Po. It promotes scientific and technological exchanges by attracting companies from around the world. Internet technology is also covered. The stakeholders involved in the process use fewer resources than what is required to build technology infrastructures. The flexibility of technical exchanges among different companies is very high. Therefore, the development of the Internet in various countries can also be more effective.
Criterion 3	<b>Effectiveness</b>	In developing countries, investing in improving large-scale technological infrastructure is very risky. The lack of supporting infrastructure (such as electricity) also makes the effect of technological infrastructure unreliable. However, raising the public's knowledge level can ensure the public can learn some knowledge of Internet technology. It is more reliable than the improvement of technological infrastructures and can effectively enhance the development level of the internet in various countries.	<b>The use of Internet in rural areas:</b> In China, although Internet technology applied onto agricultural operations is still at its infancy, the use of the Internet for personal use among people in the rural areas is relatively popular. It shows that raising the knowledge level of people requires less time and resources than improving technological infrastructure and thus more effective in enhancing the development of the Internet in various countries in comparison to improving the infrastructure.