

About Asia Pacific Internet Research Alliance (APIRA)

■ General Introduction

Asia Pacific Internet Research Alliance (APIRA) was founded on September 27, 2003. It is a spontaneously organized and non-profit organization. It is a regional organization and is not subjected to any other organizations. Internet research oriented organizations, include but not limited to Policy/Regulatory organizations, companies, enterprises, research institutes, colleges and other Internet organizations located in Asia-Pacific region are welcome to join us.

■ Goal and Mission

- Enhancing communication and comparison in Asia-Pacific region on survey data of Internet use;
- Deepening the methodological research on data collection and analysis of Internet use;
- Facilitating the cooperation among Asia-Pacific countries and regions on survey research of Internet use;
- Boosting the regional development of Internet research.

■ Current Members

- China Internet Network Information Center (CNNIC)
- Malaysian Communications and Multimedia Commission (MCMC)
- Korea Internet & Security Agency (KISA)
- Macao Association for Internet Research (MAIR)
- Taiwan Network Information Center (TWNIC)
- City University of Hong Kong
- Internet Service Providers Association of India (ISPAI)

- All China Strategic Research (ACSR), China
- Internet Marketing Council of Korea (IMCK), Korea
- iResearch Group, China
- Yahoo!SoutheastAsia, Singapore
- Impress R&D / Internet Media Research Institute, Japan
- ePanel Co., Ltd. China
- Cyber Café Association of India (CCAOI)

■ The Activities of APIRA

International Conference

- Sharing the latest research achievements of each members and statistical technologies on the Internet information. The member shall host the meetings in turn.

Joint Survey

- Every Board member conducts the joint survey on the Internet Development in Members at least once in every two years and shares their results.
- Communication and Cooperation
 - ◆ All the members can exchange latest Internet Information or publications
 - ◆ With the help of APIRA members, each member can visit other country/region, attend Internet-related International Conference, and make possible cross-region cooperation.

APIRA's Managing Structure



Table of Contents

ABOUT ASIA PACIFIC INTERNET RESEARCH ALLIANCE (APIRA)	1
REPORT PARTNERS	4
ACKNOWLEDGEMENTS	4
INTRODUCTION OF THE REPORT	5
HIGHLIGHTS OF THE REPORT	7
METHODOLOGY	13
REGIONAL DIFFERENCES IN INTERNET PENETRATION OF THE ASIA-PACIFIC REGION	15
ICT ENVIRONMENT	17
INTERNET ADOPTION	21
USER CHARACTERISTICS	22
INTERNET USAGE PATTERN	26
PURPOSE OF USING THE INTERNET	28
DIGITAL DIVIDE IN ADOPTION, ONLINE EXPERIENCE, AND ONLINE PURPOSE	30
ATTITUDES TOWARDS THE INTERNET	46
REASONS FOR NOT USING THE INTERNET	47
INTERNET DEVELOPMENT RESEARCH IN ASIA-PACIFIC REGION	48
CONCLUSION	60
APPENDIX I	61
SURVEY METHODS	61
FIELDWORK STARTED 15 OCTOBER 2011 AND ENDED ON 21 JANUARY 2012.	67
APPENDIX II	68
APIRA CORE QUESTION TEMPLATE	68
APPENDIX III	74
APIRA MEMBER CONFERENCES TIMELINE	74
APPENDIX IV	84
JOINING APIRA	84

Internet in Asia Pacific Region: A Comparative Report 2014

Report Partners

China Internet Network Information Center (CNNIC)

Malaysian Communications and Multimedia Commission (MCMC)

Korea Internet & Security Agency (KISA)

Macao Association for Internet Research (MAIR)

Taiwan Network Information Center (TWNIC)

Acknowledgements

Asia Pacific Internet Research Alliance (APIRA) would like to thank its regular members for participating in this collaborative work.

This report would not have been possible without the contribution of responsible colleagues from each participating member organization.

Liu Bing, Liu Xin, Liu Ying and Xu Qin from China Internet Network Information Center carried out the data analysis for and the writing of this report.

CNNIC made the publication of this report possible with financial support.

Introduction of the Report

This report presents the latest findings of the Internet surveys conducted by the members of the Asia Pacific Internet Research Alliance (APIRA), using the same set of questions focusing on the following eight themes.

1. ICT Environment
2. Internet Adoption
3. Users Characteristics
4. Internet Usage Pattern
5. Purpose for Using the Internet
6. Digital Divide
7. Attitudes towards the Internet
8. Reasons for Not Using the Internet

With the rapid development of the Internet in every aspect of society, there is an increasing need for index that helps analyze the quantitative growth in the number of Internet users and usage rate as well as the qualitative growth in Internet usage patterns, and Internet usages in daily life. In 2005, the members of APIRA agreed to conduct surveys in their respective places

adopting a common questionnaire which is termed as the APIRA Core Question Template in order to fulfill the above-mentioned objectives and to make an international comparison possible from global perspective.

The purpose of the international comparison among Asia Pacific countries and regions under the same operational definitions is to find out the similarities and differences of the under-study people's usage behaviors of and attitudes towards the rapidly evolving technology- the Internet. In addition to the cross-sectional comparison, the collaborative members of the APIRA members will try to look at the evolving usage patterns of the Internet by the users and the reasons of not using the Internet by those non-users with the longitudinal survey data in the long run.

The collaborative members of the APIRA for this report include the China Internet Network Information Center (CNNIC), the Macao

Association for Internet Research (MAIR), the Malaysia Communications and Multimedia Commission (MCMC), Taiwan Network Information Center (TWNIC) and Korea Internet & Security Agency (KISA). The surveys cover a total probability sample of 142,169 respondents which represents more than 614 million Internet users accounting for 57.0% of the total users in Asia or 25.5% in the world.¹

and reliable statistical information for establishing government policies, corporate business strategies, and academic research.

The contributors of this report hope that the findings and the comparison results will shed lights on the understanding of the development of the Internet in this fastest growing region in terms of the number of the Internet users in the world.

Specifically, we hope that the report can help people to have better understanding of rapid changes in Internet usage and usage patterns and thus provide accurate

¹ The percentages were estimated based on the survey figures and the data from Internet World Stats (<http://www.Internetworldstats.com/stats.htm>) (June 30, 2012)

Highlights of the Report

ICT Environment

- The penetration rate of household computers in Macau reaches 90.7%, which is the highest as compared to other regions.
- Except in Macau, the broadband is the most frequently used connection method in all the regions. Especially in Malaysia and Korea, both of their broadband usages reach 100%. In Macau and Chinese mainland, the broadband usages are relatively low and there are many people using other connection methods, such as Wi-Fi and 3G.
- The Internet devices become more varied, such as mobile phone, TV and so on. Desk-top computer is the most used device in Taiwan, but in other regions mobile phone is most used.
- The majority of users usually get online at home, and also there are more and more people using the Internet in other places. In Korea, there are nearly 90% of users getting online in other places, such as airports, train stations and High-speed rail stations. In Taiwan and Malaysia, there are more than 20% of Internet users going online in Internet café.

Internet Adoption

- Among five regions, Korea (84.8%) has the highest rate in Internet adoption, followed by Taiwan (77.7%).

User Characteristics

- Among these five regions, male proportion of Internet users is larger than female. Especially in China, the male proportion is 56.0%, which is largest in all.

- In Chinese Mainland and Malaysia, the largest group of Internet users is those who are 15-24 age. In Taiwan and Macau, the largest age group of the Internet users is 25-34. In Korea, the largest age group of the Internet users is much older, which is 35-44.
- The largest group of Internet users is high school/middle school degree in most regions except in Taiwan, whose largest Internet user group is bachelor college degree, accounting for 50.3%. In Chinese mainland, the high school/middle school degree group of Internet user accounts for 69.2%, higher than that in other regions. In Korea, the “elementary and below” group of Internet user reaches 17.4%, higher than that in any other regions.
- In all the four regions, there are higher percentages of non-students as compared to that of students. Especially in Taiwan, the non-students proportion (80.1%) of Internet users is the highest.
- The biggest group of the Internet user’s household income mostly falls on the fourth quartile except in Malaysia. In Malaysia, the biggest group of the Internet users falls on the second quartile, which accounts for 50.0%.

Internet Usage Pattern

- Most of the Internet users in the five regions have been using the Internet for more than 5 years. But in Malaysia, 36.5% of Internet users get online for 1-3 years, which is the largest group.
- On average, users in Chinese mainland use the Internet 25.0 hours per week, which is the longest as compared to the other regions. The Internet users in Korea use the Internet least, only 13.5 hours per week.

Purpose of Using the Internet

- Among all, getting information and leisure is the most two purpose for people going online in all the regions. But also

there are some differences between different regions in people's domain interests.

- In Taiwan and Malaysia, quite a few of people use the Internet for online community while in China and Korea, many people getting on line for communication by text.

Digital Divide in Adoption, Online Experience, and Online Purpose

Adoption Divide

- In all the four regions, the Internet adoption rate among males is higher than that among females.
- The Internet adoption is much higher in young people as compared with old people. Especially in those aged 15-24 people, the Internet adoptions are all nearly 100%. The people aged 55 and older exhibits the lowest rate of the Internet adoption.
- The higher the degree of education obtained, the higher the Internet adoption is. People with a master degree/above have the highest Internet adoption as compared to other education degree.
- The Internet adoption rate among students is higher than that among non-students in all the four regions. The Internet adoption gap between students and non-students is biggest in the Chinese mainland.
- The higher the household income, the higher Internet adoption.

Online Experience Divide

- Males have a longer experience getting online than females in all the three regions. Especially, in Korea, males have been online for 11.0 years.

- In Taiwan, Macau and Korea, people who aged between 25 and 34 have the longest online experience.
- The higher the degree of education obtained, the longer the online experience in those regions.
- The non-students have more online experience than students in the three regions.
- In all the three regions, the higher the household income, the longer the online experience.

Online Purpose Divide

- The percentage of males getting information online is higher than that of female in all the three regions.
- The percentage of female getting online for communication by text is higher than that of male. Especially in Macau, the parentage gap of online for communication by text between male and female is biggest.
- In these four regions, the percentage of males getting online for leisure is higher than that of females.
- In Taiwan and Korea, males occupy a greater proportion of downloading/upgrading software online as compared to that of females. While in Macau, it equals.
- In Taiwan, the older the Internet users are, the higher percentage of online for getting information is. In Macau, the proportion of people aged 45-54 getting online for information is the highest as compared to other age groups. In Korea, people aged 15-24 who get online for information accounts for the highest proportion (99.3%).
- In Taiwan and Macau, the proportions of people getting online for communication by text are relatively low. Especially the proportion of people aged 14 or below getting online for communication by text is lower than other age groups. In Chinese mainland and Korea, the proportion of people aged 15-24 getting online for communication is higher than other age groups.

- In Chinese mainland, all the age groups have a high percentage of online for leisure. In Taiwan and Macau, the propitiation of online for leisure is rather low as compared with Chinese Mainland and Korea. And it shows that the greater the age is, the lower the proportion is. In Chinese Mainland and Korea, the proportion of people aged 15-24 getting online for leisure is the highest.
- The higher the degree of education obtained, the greater the proportion of people getting online for information.
- In all these regions, the higher the degree of education obtained, the greater the proportion of getting online for communication by text.
- In Taiwan and Macau, the higher the degree of education obtained, the lower the proportion of getting online for leisure. But the proportions of getting online for leisure in the two regions are much lower than that in Chinese Mainland and Korea.
- In all the three regions (Taiwan, Macau and Korea), there are a higher percentage of non-students getting online for information as compared to that of students.
- In Taiwan and Macau, a higher percentage of non-students get online for communication by text as compared to that of students. However, in Chinese Mainland and Korea, the percentage of non-students getting online for communication is lower than that of students.
- In all the four regions (Chinese mainland, Taiwan, Macau and Korea), a higher percentage of students go online for leisure as compared to that of non-students.

Attitudes towards the Internet

- With respect to the trust of the Internet, a great proportion of people in Taiwan give an “average answer” in Macau and Malaysia.

Reasons for Not Using the Internet

- “Not interested or consider its useless” and “Lack of skills” are the two major reasons of not using the Internet in the four regions.

Methodology

Survey Methods

The APIRA Core Question Template was adopted in the surveys conducted by the collaborative members of the APIRA. The following table summarized the methods by each member and more detailed descriptions can be found in Appendix I.

	Chinese mainland	Taiwan	Macao	Malaysia	Korea
Survey Period	Nov 3- Dec 22, 2013	May 5-May 21, 2014	May 30- Jun15, 2014	May21 - Jun 17, 2014	July 1- Sep15 , 2013
Sample Size	60,000	3,134	1,000	633	77,402
Method of Interview	Computer-assisted telephone interviewing	Computer-assisted telephone interviewing	Computer-assisted telephone interviewing	CATI	Face to Face interview
Targeted Sample	Chinese mainland residents, aged 6+	Residents in Taiwan aged 12 and above	Macao residents, aged 6-84, speaking Chinese	The target population is all inhabitants and their households in the states and territories making up Malaysia.	48,827,329
Sampling Method	RDD telephone sample	RDD telephone sample	RDD telephone sample	RDD Telephone Sample	Stratified Multi-stage Cluster sampling
Response Rate*	7.9%	15.30%	23.7%	35.19%	
Sampling Error (±)	0.3%	1.75%	3.16%	5.00%	0.23%p
Sample Weight	Age x Education of China mainland Census Data	Cities, gender and age groups are used for weighting the random stratified samples	Age x Gender of Macao Census Data	Region in Malaysia	

*CATI refers to Computer-assisted telephone interviewing.

**AAPOR RR3 was used to calculate the response rate.

**Malaysia: the data are obtained from various surveys conducted last year pertaining to use of Internet.

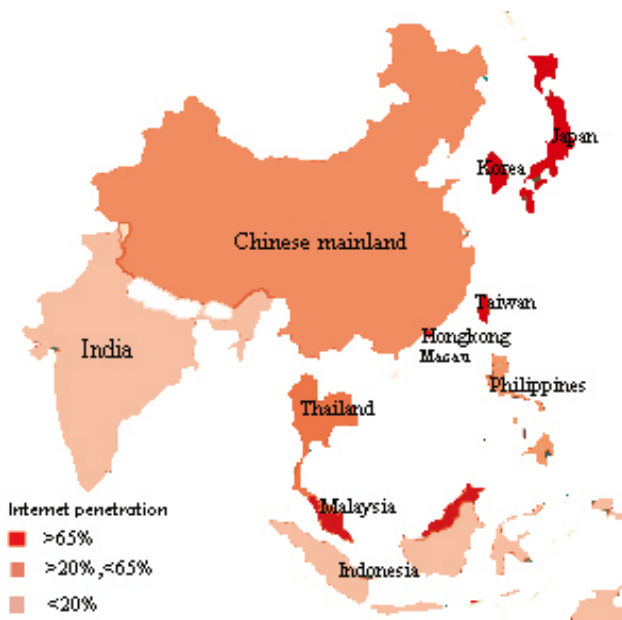
Measurements

A total of 17 questions in the core question template, categorized into eight themes, were extracted to be used for analysis in this report. They are

1. **ICT Environment** which was measured by
 - Household Computers
 - Connection Method of Accessing the Internet
 - Device of Accessing the Internet
 - Places of Accessing the Internet
2. **Internet Adoption** which was measured by
 - Internet Adoption Rate
 - User Population
3. **User Characteristics** which were measured by
 - By Gender
 - By Age
 - By Educational Degree
 - By Studying Status
 - By Household Income
4. **Internet Usage Pattern** which was measured by
 - Years of Using the Internet
 - Weekly Hours of Using the Internet
 - Time of the Day Using the Internet (Usually)
5. **Purpose of Using the Internet** which was measured by
 - Purposes of Using the Internet
6. **Digital Divide** which was measured by
 - Adoption by demographics
 - Online Experience by demographics
 - Online Purpose by demographics
7. **Attitudes towards the Internet** which were measured by
 - Internet Trust
 - Importance of the Internet in Life/Study
8. **Reasons for Not Using the Internet** which was measured by

- Reasons for Not Using the Internet

Regional differences in Internet penetration of the Asia-Pacific region

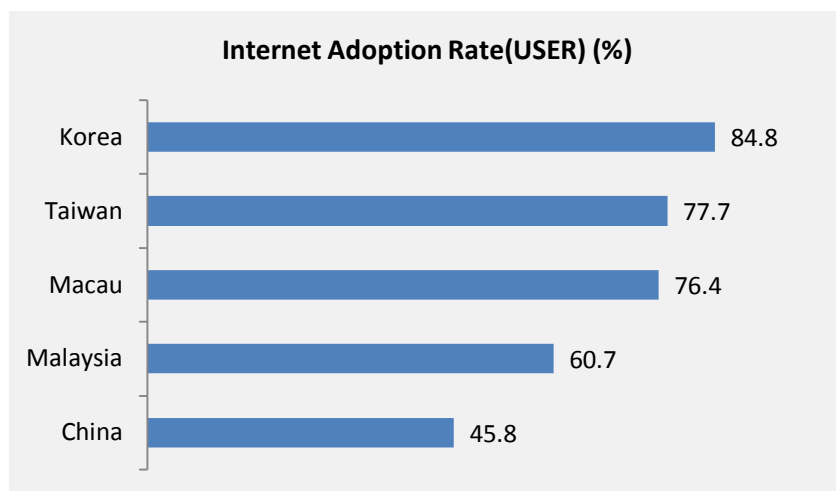


There are many standards to measure the Internet development and the most important one is the Internet penetration.

As seen from the Internet penetration, there are regional differences in Asia-Pacific Internet development, which have been divided into the developed and less developed. The Internet

penetration of much developed areas is more than 65%, such as Korea (84.8%), Taiwan (77.7%), and Macau (76.4%).

Malaysia's Internet development is in the second class "20%-65%", which is 60.7%. The Internet penetration in China is 45.8%, also in the second class.



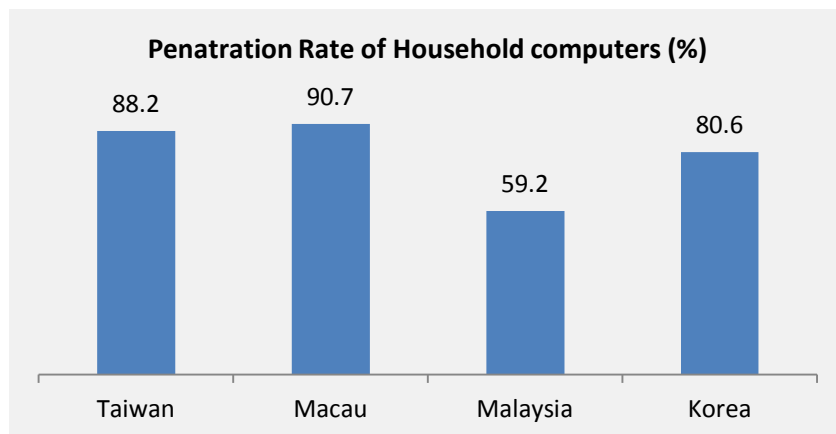
Internet penetration is closely linked with a country or region's economic development. At the same time, Internet is the mainstream way of life and has a great influence on economic development. As developing countries take a big proportion in Asia-Pacific region, there is still plenty of

room for the development of the Internet in these regions. How to raise the Internet development in less developed regions and reduce the Asia Internet development gap attracts great attention.

ICT Environment

- The penetration rate of household computers in Macau reaches 90.7%, which is the highest as compared to other regions.
- Except in Macau, the broadband is the most frequently used connection method in all the regions. Especially in Malaysia and Korea, both of their broadband usages reach 100%. In Macau and Chinese mainland, the broadband usages are relatively low and there are many people using other connection methods, such as Wi-Fi and 3G.
- The Internet devices become more varied, such as mobile phone, TV and so on. Desk-top computer is the most used device in Taiwan, but in other regions mobile phone is most used.
- The majority of users usually get online at home, and also there are more and more people using the Internet in other places. In Korea, there are nearly 90% of users getting online in other places, such as airports, train stations and High-speed rail stations. In Taiwan and Malaysia, there are more than 20% of Internet users going online in Internet café.

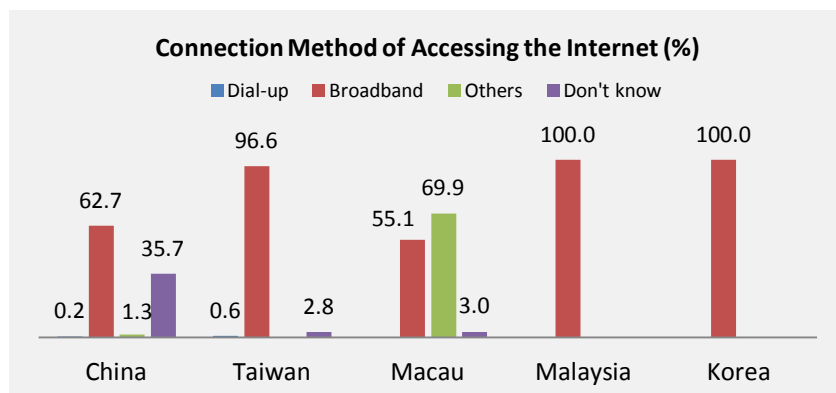
1. Household Computers



The penetration rate of household computers in Macau reaches 90.7%,

which is the highest as compared to other regions.

2. Connection Method of Accessing the Internet

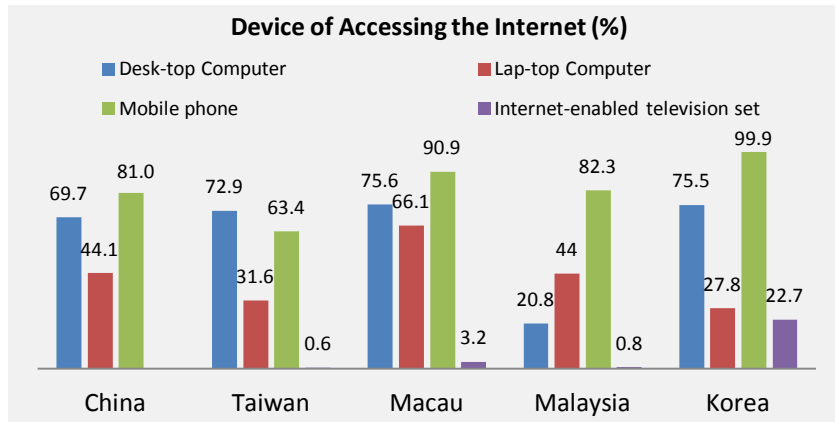


* Macau: Others refer to Wi-Fi + 3G +Fiber, Multiple Choices.

Except in Macau, the broadband is the most frequently used connection method in all the regions. Especially in Malaysia and Korea, both of their broadband usages reach 100%.

In Macau and Chinese mainland, the broadband usages are relatively low and there are many people using other connection methods, such as Wi-Fi and 3G.

3. Device of Accessing the Internet



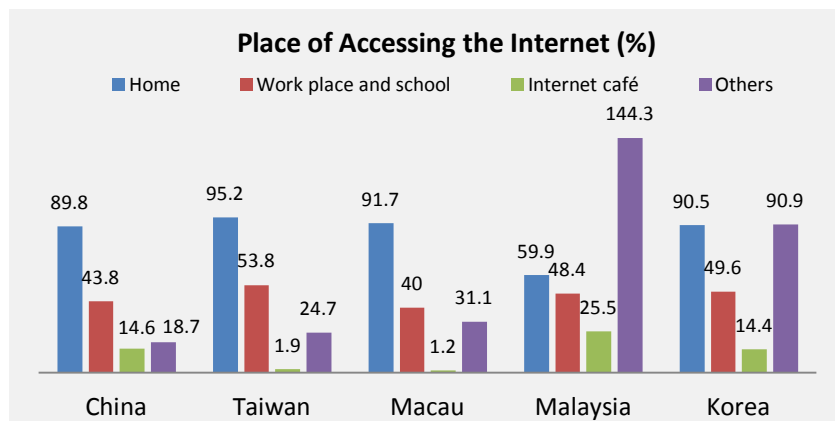
The Internet devices become more varied, such as mobile phone, TV and so on.

In Taiwan, Desk-top computer is still the most used device in Internet accessing.

But in the other four regions, the most used device is the mobile phone.

Especially in Korea, there is 99.9 percent of Internet users connect to the Internet through mobile phone.

4. Place of Accessing the Internet



*Macau: Others=Public places/ Streets

The majority of users usually get online at home, and also there are more and more people using the Internet in other places.

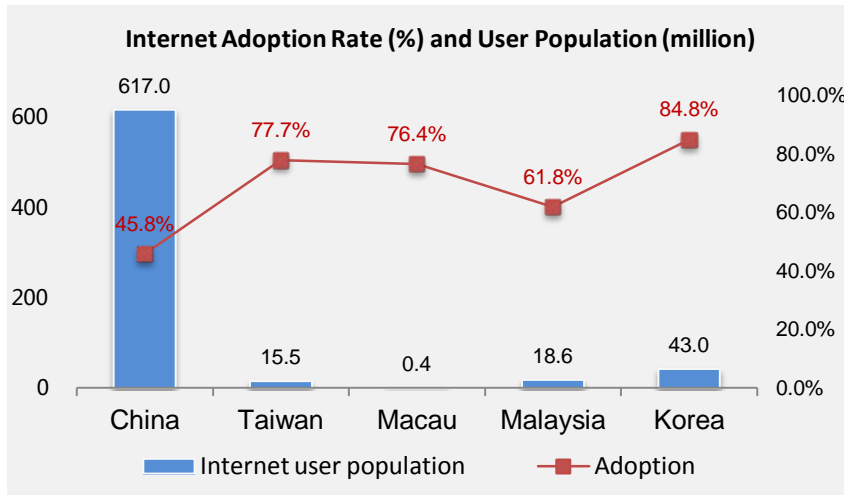
In Korea, there are nearly 90% of users getting online in

other places, such as airports, train stations and High-speed rail stations.

In Taiwan and Malaysia, there are more than 20% of Internet users going online in Internet café.

Internet Adoption

- Among five regions, Korea (84.8%) has the highest rate in Internet adoption, followed by Taiwan (77.7%).



*China: Users refers to "those have used the Internet in the previous six months".

*Taiwan: Users refers to "those ever used and are still using the Internet".

*Macau: Users refers to "those are currently using the Internet, excluding those ever used but no longer use anymore".

*Korea: Users refers to "those who used the Internet in the last 1 year"

There are 617 million Internet users in Chinese Mainland, 15.5 million in Taiwan, 0.4 million in Macau, 18.6 million in Malaysia and 43.0 million in Korea.

The number of Internet users in Chinese Mainland is top in the five regions.

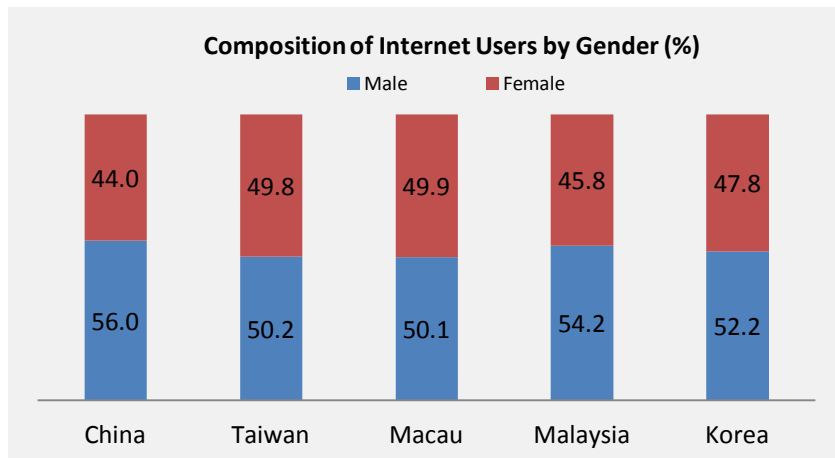
The Internet adoption rate

in Korea is the highest one which reaches 84.8% while the Internet adoption rate in Chinese mainland (42.1%) is lowest.

The Internet adoption rate is 77.7% in Taiwan, 76.4% in Macau and 61.8% in Malaysia.

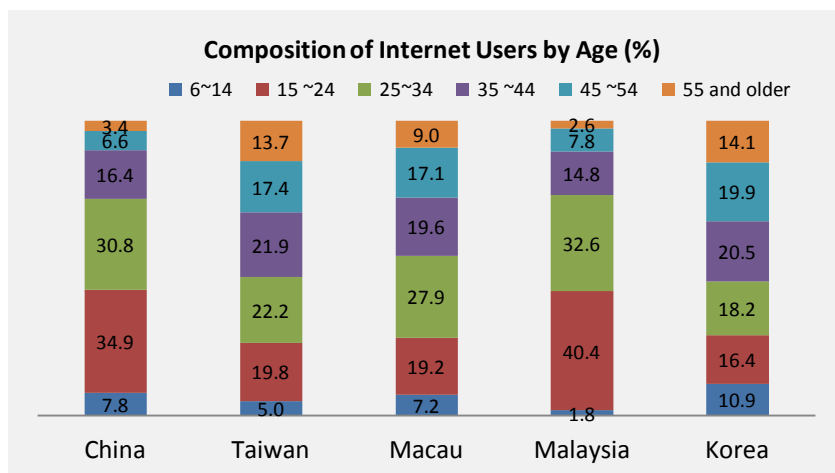
User Characteristics

- Among these five regions, male proportion of Internet users is larger than female. Especially in China, the male proportion is 56.0%, which is largest in all.
- In Chinese Mainland and Malaysia, the largest group of Internet users is those who are 15-24 age. In Taiwan and Macau, the largest age group of the Internet users is 25-34. In Korea, the largest age group of the Internet users is much older, which is 35-44.
- The largest group of Internet users is high school/ middle school degree in most regions except in Taiwan, whose largest Internet user group is bachelor college degree, accounting for 50.3%. In Chinese mainland, the high school/middle school degree group of Internet user accounts for 69.2%, higher than that in other regions. In Korea, the “elementary and below” group of Internet user reaches 17.4%, higher than that in any other regions.
- In all the four regions, there are higher percentages of non-students as compared to that of students. Especially in Taiwan, the non-students proportion (80.1%) of Internet users is the highest.
- The biggest group of the Internet user’s household income mostly falls on the fourth quartile except in Malaysia. In Malaysia, the biggest group of the Internet users falls on the second quartile, which accounts for 50.0%.



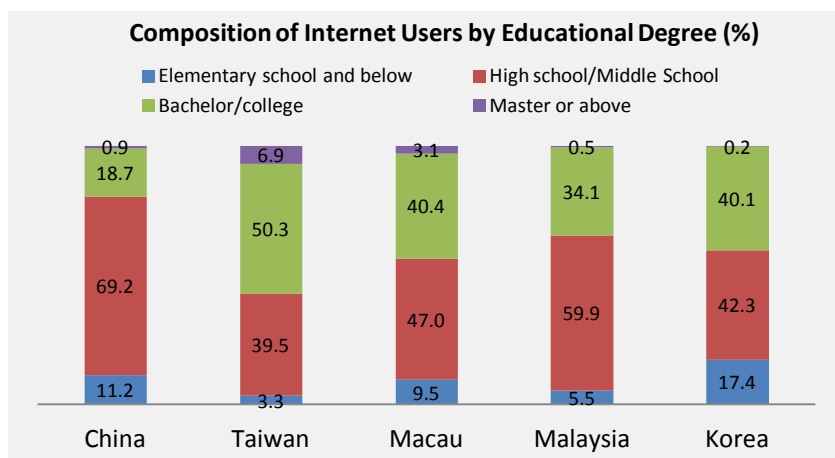
Among these five regions, male proportion of Internet users is larger than female.

Especially in China, the male proportion is 56.0%, which is largest in all.



In Chinese Mainland and Malaysia, the largest group of Internet users is those who are 15-24 age, which accounts for 34.9% and 40.4% respectively. In Taiwan and Macau, the largest age group of the

Internet users is 25-34, which accounts for 22.2%, and 27.9% respectively. In Korea, the largest age group of the Internet users is much older, which is 35-44, accounting for 20.5%.

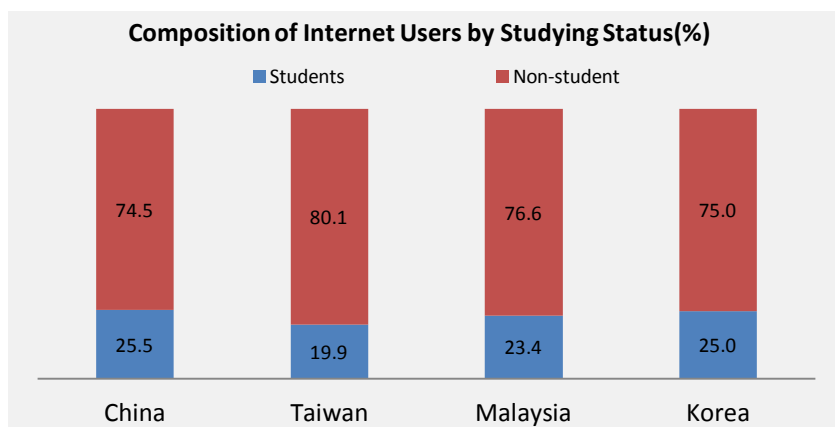


The largest group of Internet users is high school/middle school degree in most regions except in Taiwan, whose largest Internet user group is bachelor/college degree, accounting for 50.3%.

In Chinese mainland, the high school/middle school

degree group of Internet user accounts for 69.2%, higher than that in other regions.

In Korea, the elementary and below group of Internet user reaches 17.4%, higher than that in any other regions.

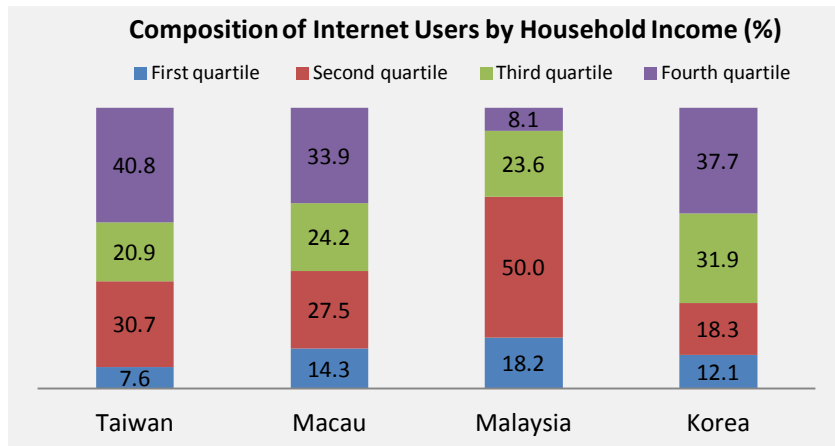


In all the four regions, there are higher percentages of non-students as compared to

that of students. Especially in Taiwan, the non-students

proportion (80.1%) of

Internet users is the highest.

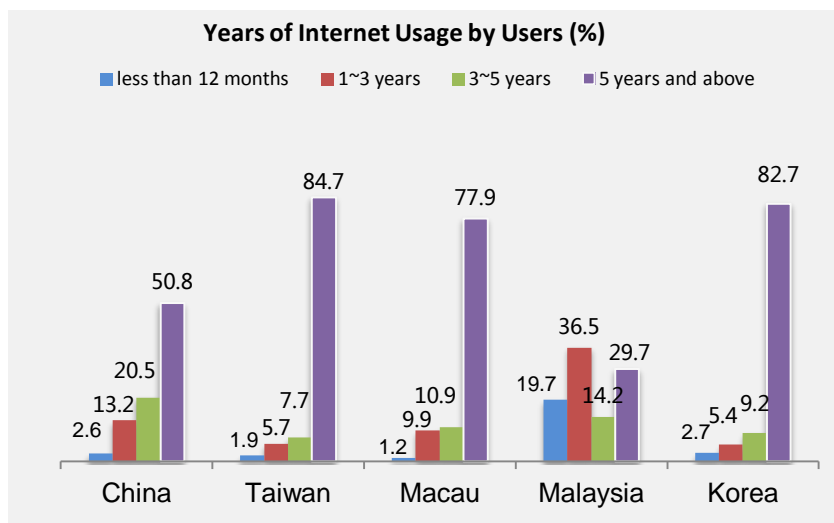


The biggest group of the Internet user's household income mostly falls on the fourth quartile except in Malaysia.

In Malaysia, the biggest group of the Internet users falls on the second quartile, which accounts for 50.0%.

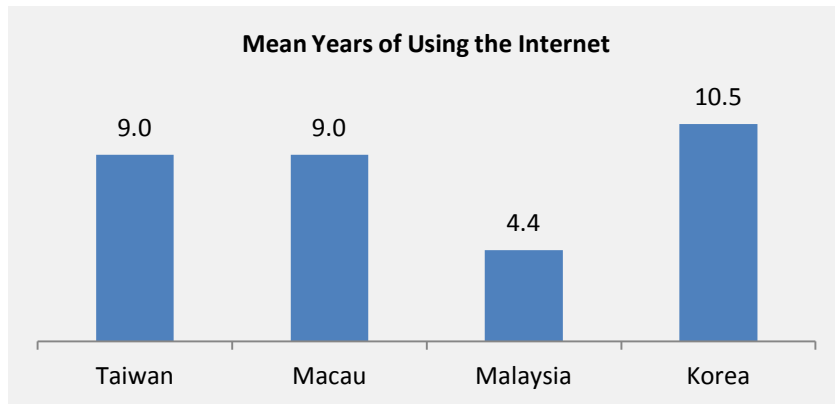
Internet Usage Pattern

- Most of the Internet users in the five regions have been using the Internet for more than 5 years. But in Malaysia, 36.5% of Internet users get online for 1-3 years, which is the largest group.
- On average, users in Chinese mainland use the Internet 25.0 hours per week, which is the longest as compared to the other regions. The Internet users in Korea use the Internet least, only 13.5 hours per week.



Most of the Internet users in the five regions have been using the Internet for more than 5 years.

But in Malaysia, 36.5% of Internet users get online for 1-3 years, which is the largest group.

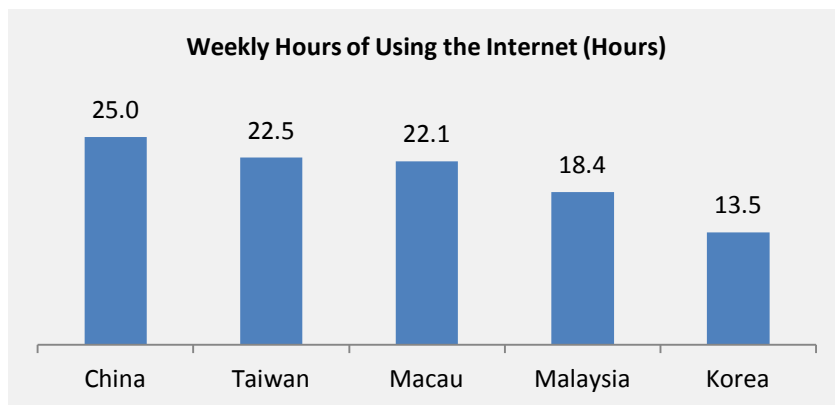


As for the mean years of using the Internet, Internet users get online for 10.5 years in Korea, which is the longest.

In Taiwan and Macau, the

mean years of the Internet using experiences are both 9.0 years.

In Malaysia, the mean years of using the Internet is much less, only 4.4 years.



On average, users in Chinese mainland use the Internet 25.0 hours per week, which is the longest as compared to the other

regions.

The Internet users in Korea use the Internet least, only 13.5 hours per week.

Purpose of Using the Internet

- Among all, getting information and leisure is the most two purpose for people going online in all the regions. But also there are some differences between different regions in people's domain interests.
- In Taiwan and Malaysia, quite a few of people use the Internet for online community while in China and Korea, many people getting on line for communication by text.

Purposes of Using the Internet Mostly (%)

	China	Taiwan	Macau	Malaysia	Korea
For getting information	---	36.4	47.4	90.6	89.0
Communication by text	86.2	14.4	24.4	82.0	81.7
Shopping/reservation	48.9	1.4	5.4	37.2	44.7
Leisure	94.7	37.9	42.5	79.7	84.0
Education	---	0.6	5.4	74.2	18.4
Financial activities	40.5	1.2	4.1	31.0	40.4
Online community	45.0	64.3	25.3	89.6	17.0
Job Search activities	---	---	0.7	37.0	8.9
Public services	---	0.8	0.4	59.9	65.0
Internet Telephone	---	0.4	0.3	39.6	14.0
Selling goods/services	---	0.9	0.4	12.5	3.5
Downloading /upgrading software	---	4.2	1.2	57.3	12.0
Homepages	---	44.5	1.6	24.2	35.9

In all the five regions, people use the Internet for multi-purpose.

Among all, getting information and leisure is

the most two purpose for people going online in all the regions.

But also there are some differences between

different regions in people's domain interests.

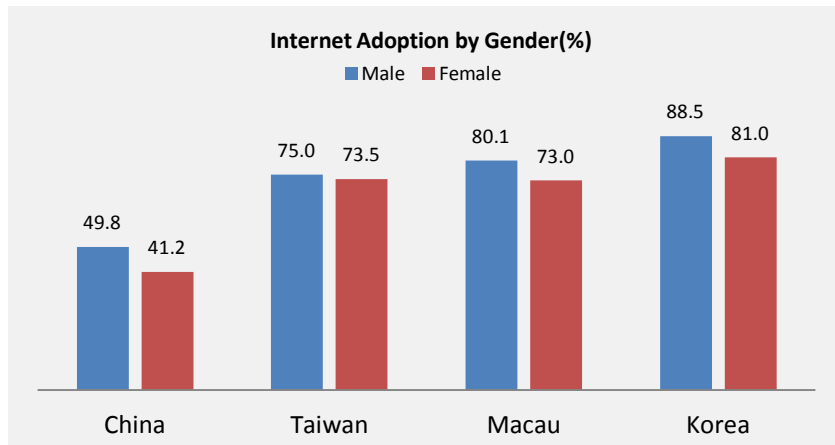
In Taiwan and Malaysia, quite a few of people use the Internet for online

community while in China and Korea, many people getting on line for communication by text.

Digital Divide in Adoption, Online Experience, and Online Purpose

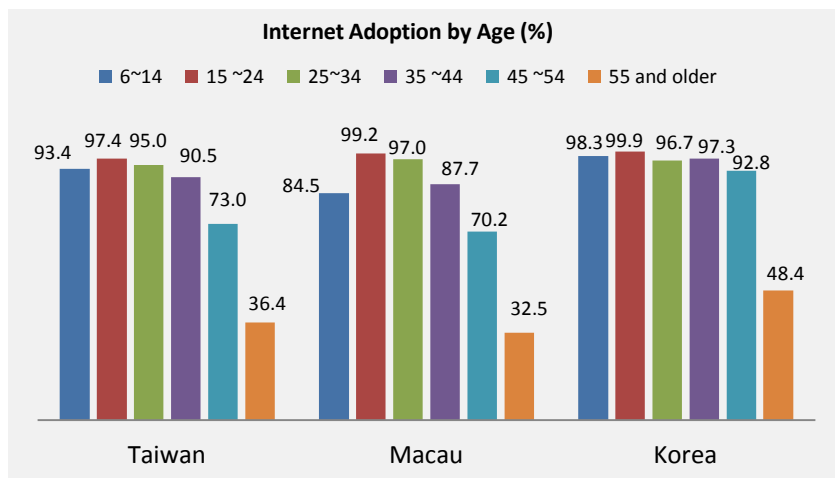
Adoption Divide

- In all the four regions, the Internet adoption rate among males is higher than that among females.
- The Internet adoption is much higher in young people as compared with old people. Especially in those aged 15-24 people, the Internet adoptions are all nearly 100%. The people aged 55 and older exhibits the lowest rate of the Internet adoption.
- The higher the degree of education obtained, the higher the Internet adoption is. People with a master degree/above have the highest Internet adoption as compared to other education degree.
- The Internet adoption rate among students is higher than that among non-students in all the four regions. The Internet adoption gap between students and non-students is biggest in China.
- The Higher the household income , the higher Internet adoption.



In all the four regions, the Internet adoption rate among males is higher than

that among females, but the difference is not so much, which is less-than-10%.

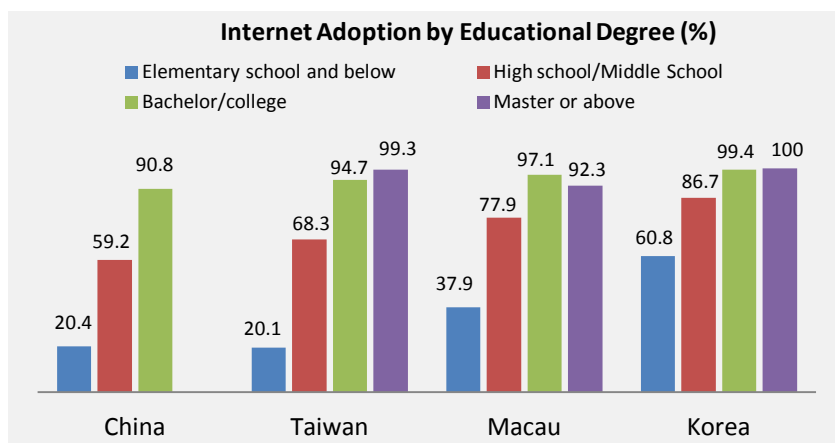


The Internet adoption is much higher in young people as compared with old people.

Especially in those aged 15-24 people, the Internet adoptions are all nearly

100%, which is the highest in all the age groups in the three regions.

The people aged 55 and older exhibits the lowest rate of the Internet adoption.

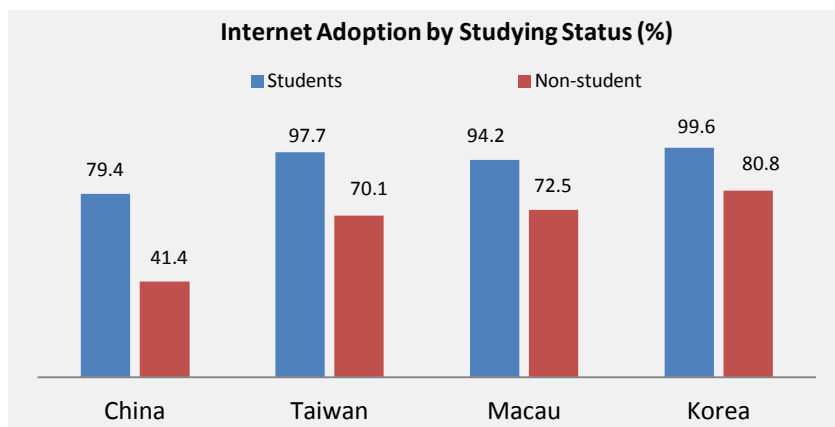


The higher the degree of education obtained, the higher the Internet adoption is.

People with a master degree/above have the highest Internet adoption as

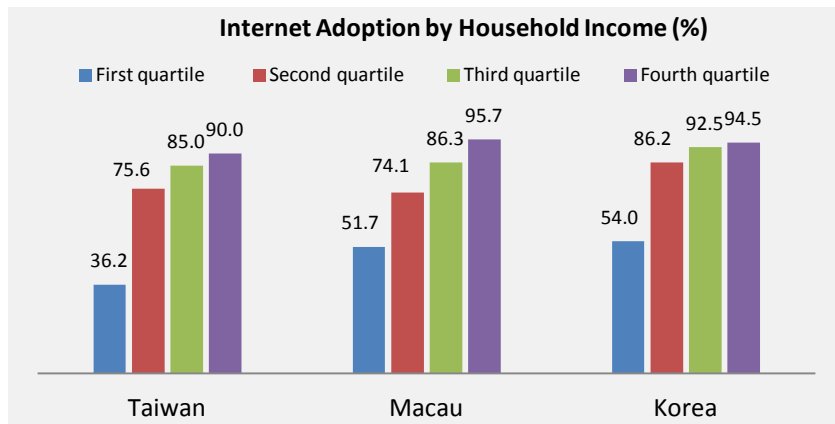
compared to other education degree.

Especially in Korea, the Internet adoption of those with a master degree or above reaches 100%.



The Internet adoption rate among students is higher than that among non-students in all the four regions.

The Internet adoption gap between students and non-students is biggest in Chinese mainland.

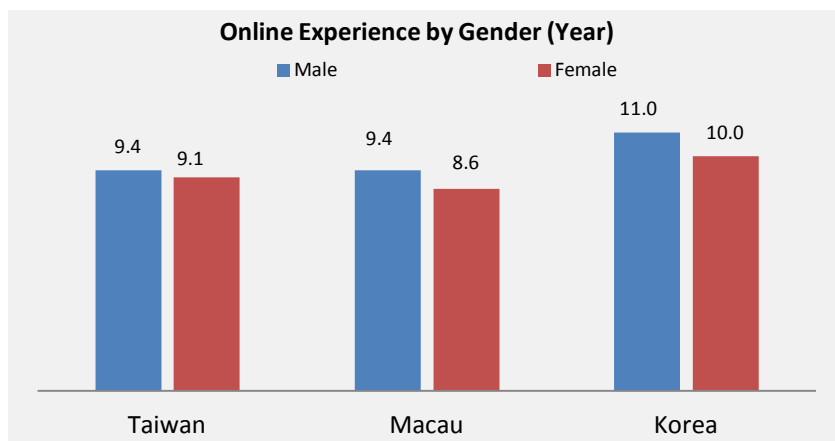


The higher the household income is, the higher

Internet adoption is in all the three regions.

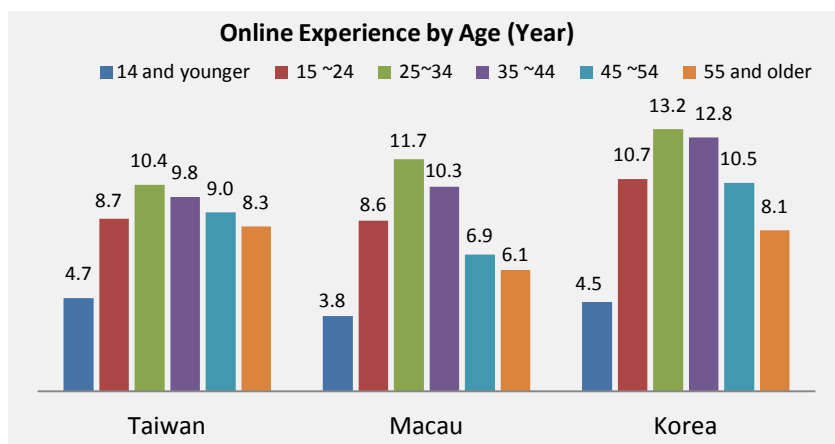
Online Experience Divide

- Males have a longer experience getting online than females in all the three regions. Especially, in Korea, males have been online for 11.0 years.
- In Taiwan, Macau and Korea, people who aged between 25 and 34 have the longest online experience.
- The higher the degree of education obtained, the longer the online experience in those regions.
- The non-students have more online experience than students in the three regions.
- In all the three regions, the higher the household income, the longer the online experience.



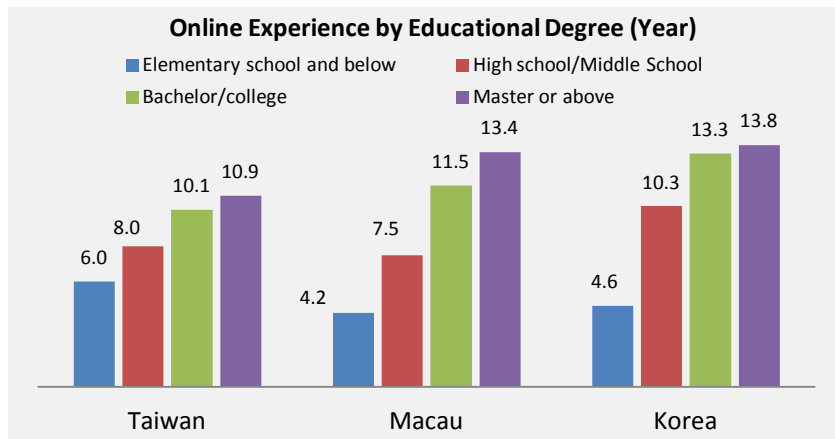
Males have a longer experience getting online than females in all the three regions.

Especially, in Korea, males have been online for 11.0 years which is highest among the three regions.



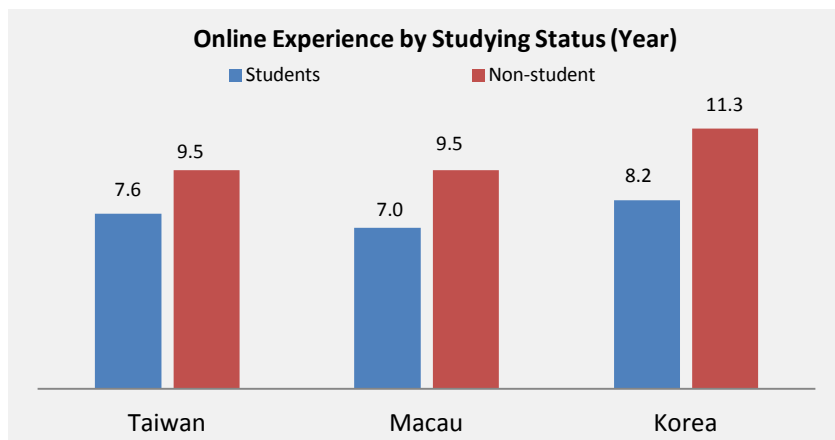
In Taiwan, Macau and Korea, people who aged between 25 and 34 have the longest online experience as

compared to other age groups, which are 10.4, 11.7 and 13.2 years respectively.



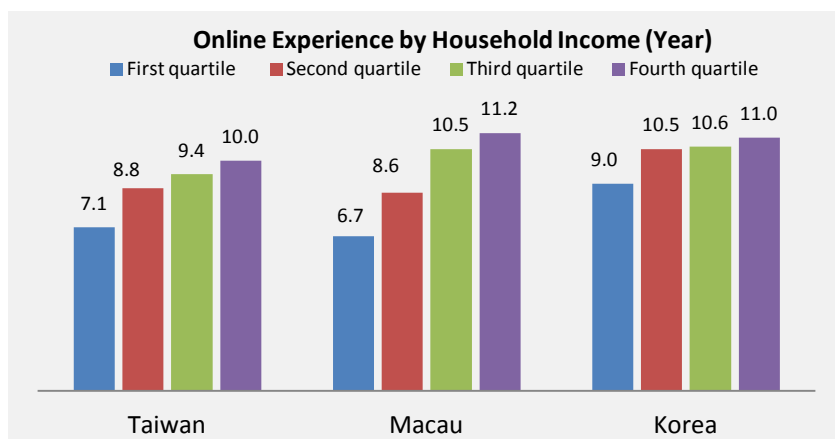
The higher the degree of education obtained, the longer the online experience in the three regions.

In Korea, people with a master or above degree get the longest online experience, which is 13.8 years.



The non-students have more online experience than students in the three regions.

The non-students in Korea (11.3 years) get longest online experience



In all the three regions, the higher the household

income, the longer the online experience.

Online Purpose Divide

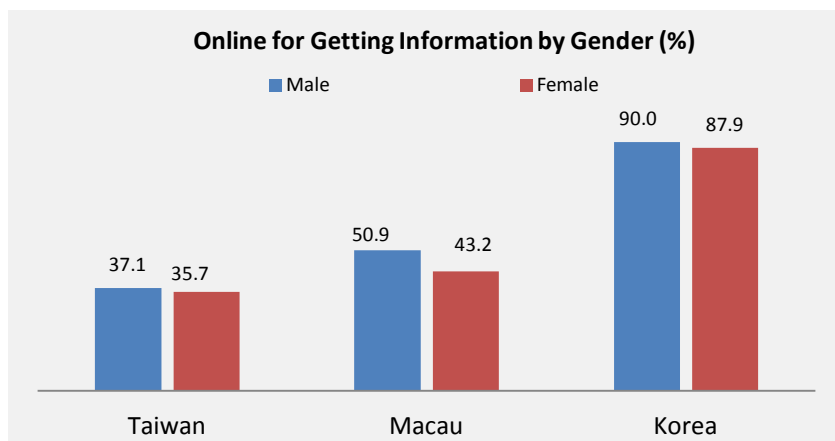
- The percentage of males getting information online is higher than that of female in all the three regions.
- The percentage of female getting online for communication by text is higher than that of male. Especially in Macau, the parentage gap of online for communication by text between male and female is biggest.
- In these four regions, the percentage of males getting online for leisure is higher than that of females.
- In Taiwan and Korea, males occupy a greater proportion of downloading/upgrading software online as compared to that of females. While in Macau, it equals.
- In Taiwan, the older the Internet users are, the higher percentage of online for getting information

is. In Macau, the proportion of people aged 45-54 getting online for information is the highest as compared to other age groups. In Korea, people aged 15-24 who get online for information accounts for the highest proportion (99.3%).

- In Taiwan and Macau, the proportions of people getting online for communication by text are relatively low. Especially the proportion of people aged 14 or below getting online for communication by text is lower than other age groups. In Chinese mainland and Korea, the proportion of people aged 15-24 getting online for communication is higher than other age groups.
- In Chinese mainland, all the age groups have a high percentage of online for leisure. In Taiwan and Macau, the proportion of online for leisure is rather low as compared with Chinese Mainland and Korea. And it shows that the greater the age is, the lower the proportion is. In Chinese Mainland and Korea, the proportion of people aged 15-24 getting online for leisure is the highest.
- The higher the degree of education obtained, the greater the proportion of people getting online for information.
- In all these regions, the higher the degree of education obtained, the greater the proportion of getting online for communication by text.
- In Taiwan and Macau, the higher the degree of education obtained, the lower the proportion of getting online for leisure. But the proportions of getting online for leisure in the two regions are

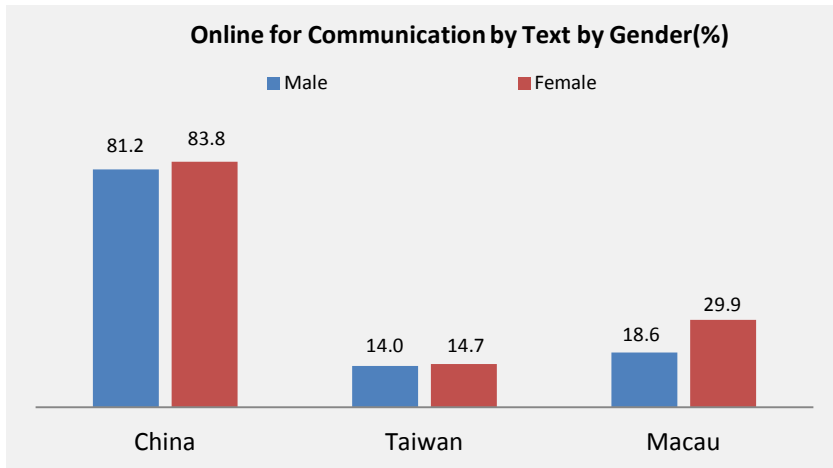
much lower than that in Chinese Mainland and Korea.

- In all the three regions (Taiwan, Macau and Korea), there are a higher percentage of non-students getting online for information as compared to that of students.
- In Taiwan and Macau, a higher percentage of non-students get online for communication by text as compared to that of students. However, in Chinese Mainland and Korea, the percentage of non-students getting online for communication is lower than that of students.
- In all the four regions (Chinese mainland, Taiwan, Macau and Korea), a higher percentage of students go online for leisure as compared to that of non-students.



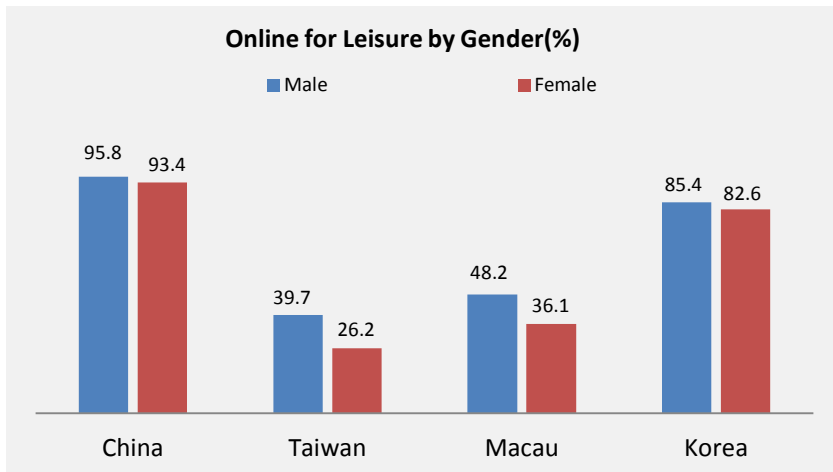
The percentage of males getting information online is

higher than that of female in all the three regions.



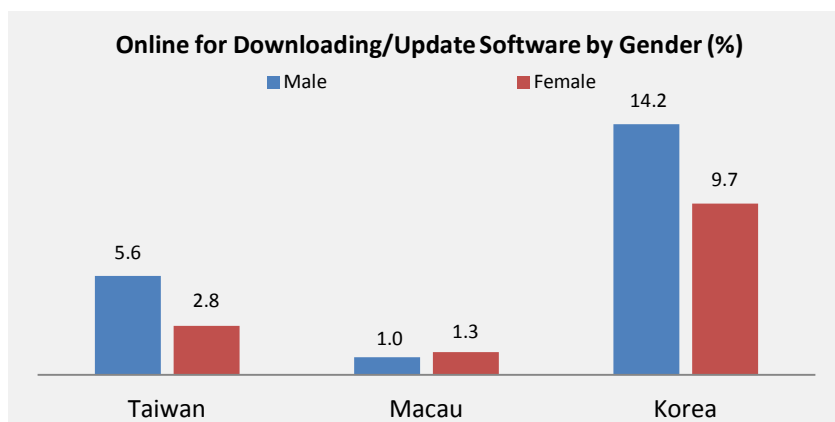
The percentage of female getting online for communication by text is higher than that of male. Especially in Macau, the

percentage gap of online for communication by text between male and female is biggest, which reaches 11.3 points.



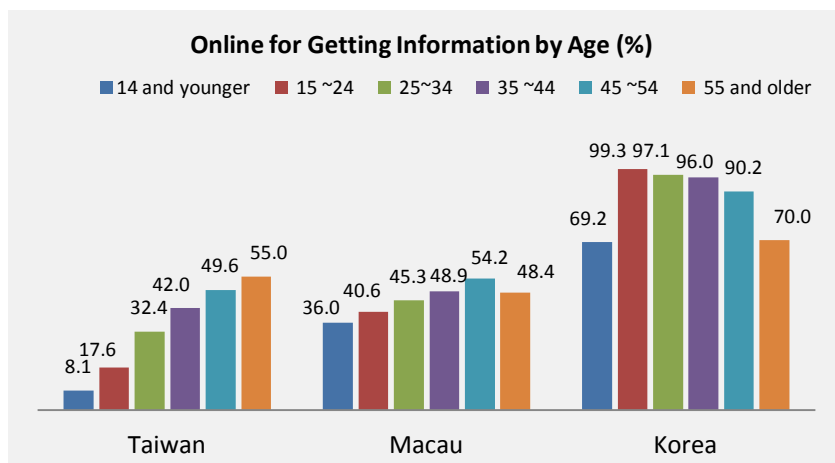
In these four regions, the percentage of males getting

online for leisure is higher than that of females.



In Taiwan and Korea, males occupy a greater proportion of downloading/upgrading software online as compared to that of females.

In Macau, the percentage of females getting online for downloading/update software is nearly the same as that of males.



In different regions, the percentage of online for getting information in different age group is different.

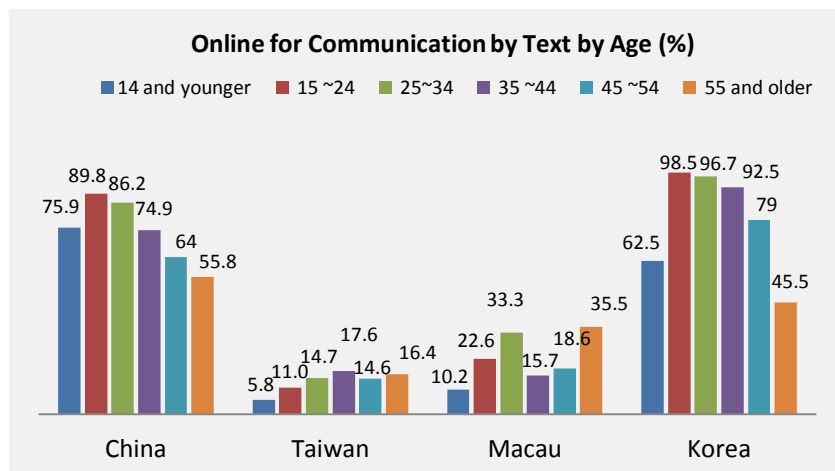
In Taiwan, the older the Internet users are, the

higher percentage of online for getting information is.

In Macau, the proportion of people aged 45-54 getting online for information is the highest as compared to other age groups.

In Korea, people aged 15-24 who get online for information accounts for

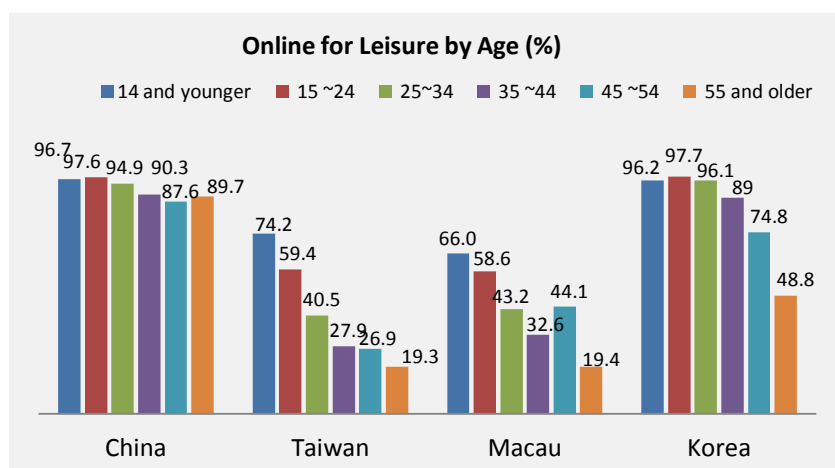
the highest proportion (99.3%).



In Taiwan and Macau, the proportions of people getting online for communication by text are relatively low. Especially the proportion of people aged 14 or below getting online for communication by text is

lower than other age groups.

In Chinese mainland and Korea, the proportion of people aged 15-24 getting online for communication is higher than other age groups.



In Chinese mainland, all the

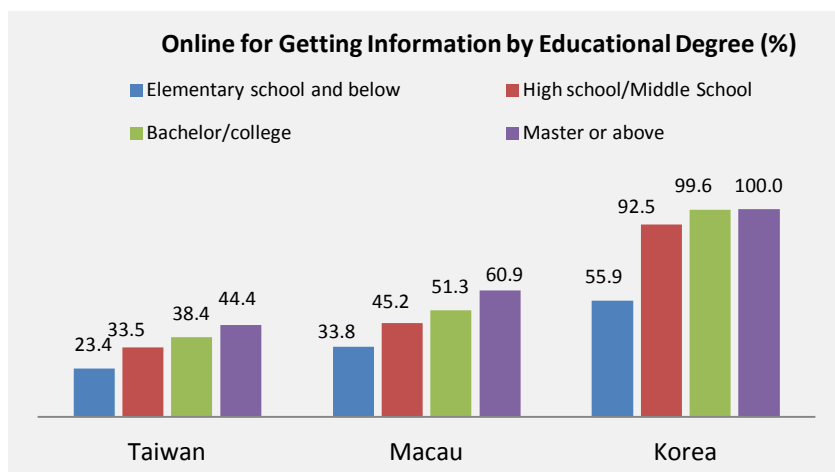
age groups have a high

percentage of online for leisure.

In Taiwan and Macau, the proportion of online for leisure is rather low as compared with Chinese Mainland and Korea. And it shows that the greater the

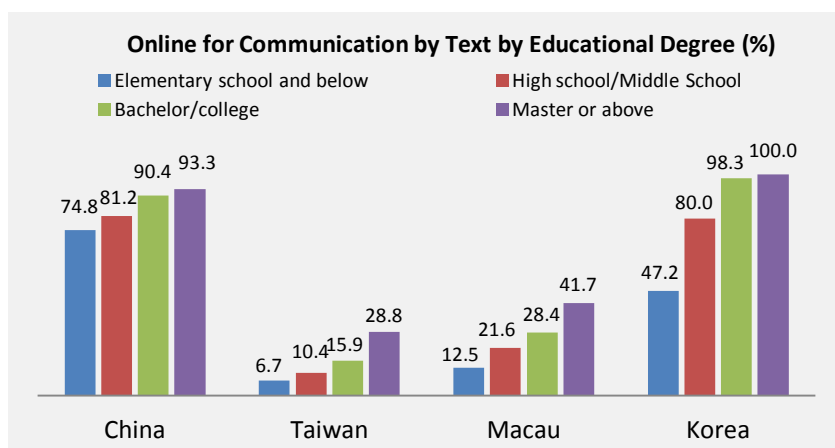
age is, the lower the proportion is.

In Chinese Mainland and Korea, the proportion of people aged 15-24 getting online for leisure is the highest.



The higher the degree of education obtained, the greater the proportion of people getting online for information.

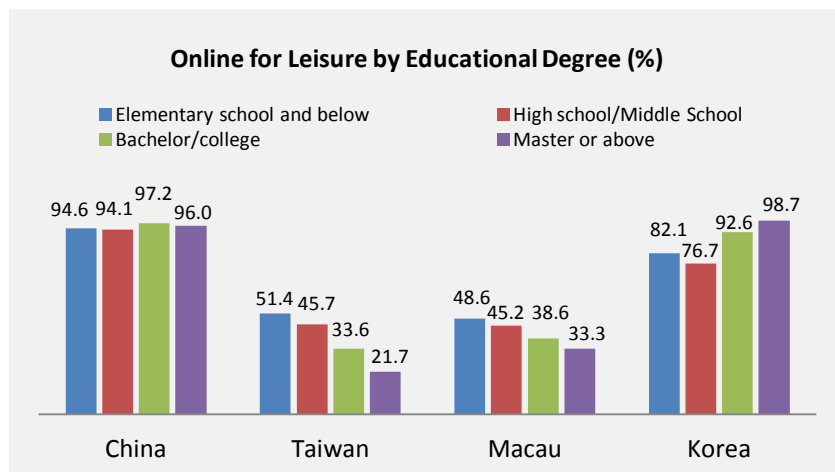
Especially in Korea, almost all the people with a master's degree or above get online for information.



In all these regions, the higher the degree of education obtained, the greater the proportion of getting online for communication by text.

In Chinese Mainland and

Korea, the proportions of people with a master's degree or above getting online for communication by text are 93.3% and 100.0% respectively, both higher than those in Taiwan and Macau.



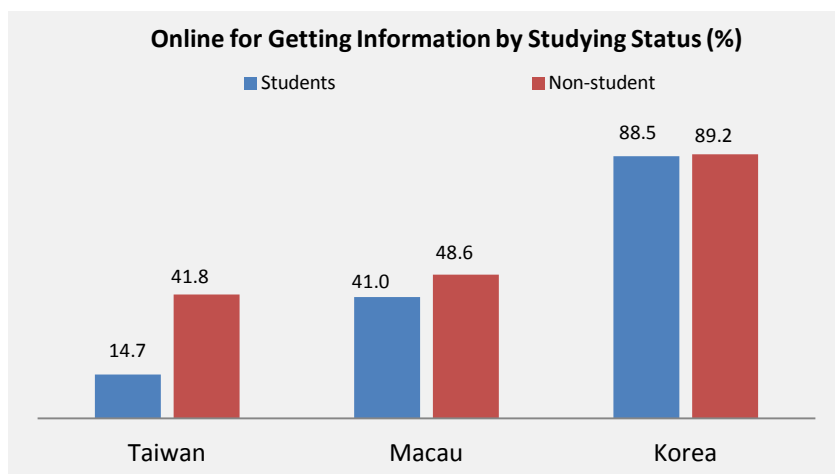
In Taiwan and Macau, the higher the degree of education obtained, the lower the proportion of getting online for leisure.

But the proportions of getting online for leisure in the two regions are much lower than that in Chinese Mainland and Korea.

In Chinese mainland, all the

proportions of getting online for leisure are much high, especially those with Bachelor/college degree users getting online for leisure most.

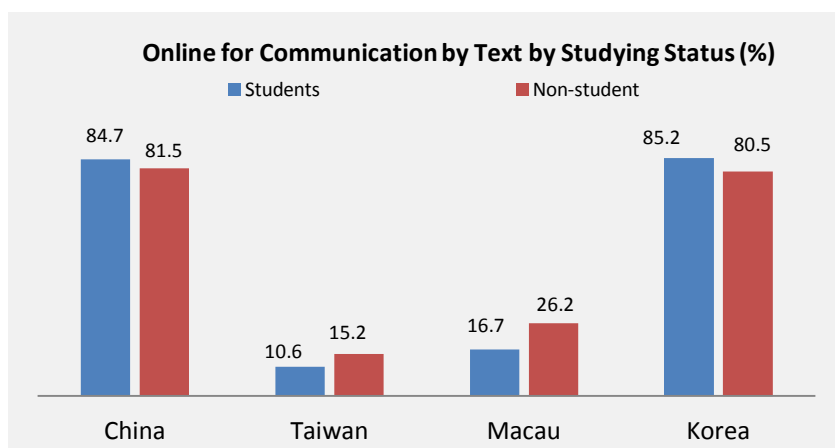
In Korea, the proportion of people with Master or above degree getting online for leisure researches 98.7%, which is the highest in all.



In all the three regions (Taiwan, Macau and Korea), there are a higher percentage of non-students getting online for information as

compared to that of students.

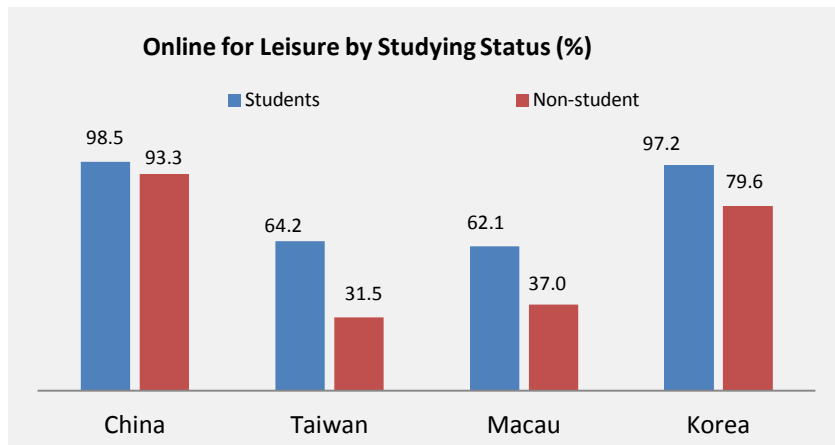
In Korea, the percentage of non-students getting online for information (83.9%) is highest.



In Taiwan and Macau, a higher percentage of non-students get online for communication by text as compared to that of students.

Mainland and Korea, the percentage of non-students getting online for communication is lower than that of students.

However, in Chinese

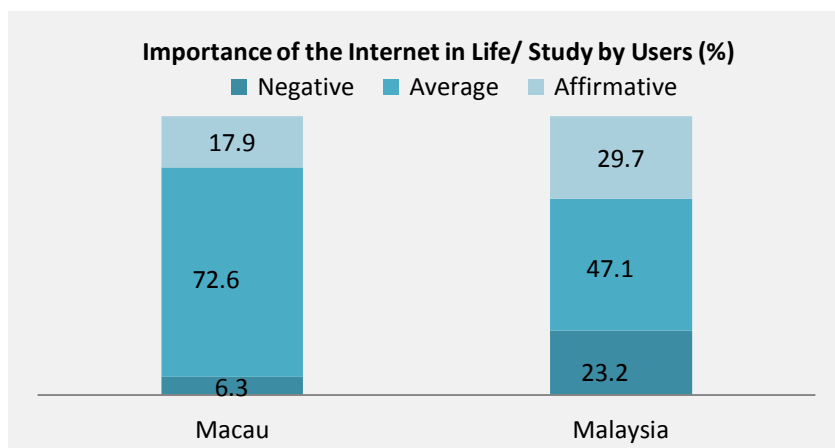


In all the four regions (Chinese mainland, Taiwan, Macau and Korea), a higher percentage of students go

online for leisure as compared to that of non-students.

Attitudes towards the Internet

- With respect to the trust of the Internet, a great proportion of people in Taiwan give an “average answer” in Macau and Malaysia.



When answering the question “How do you trust the Internet”, most of users

give an average answer in Macau and Malaysia.

Reasons for Not Using the Internet

- “Not interested or consider its useless” and “Lack of skills” are the two major reasons of not using the Internet in the four regions.

Major Reasons of Not Using the Internet (%)					
	China	Taiwan	Macau	Malaysia	Korea
Not interested or consider its useless	10.5	63.2	6.8	20.9	82.9
Lack of skills	58.1	33.9	51.3	42.2	59.5
No device (computer, telephone, Modem) or no Internet connections	10.0	9.0	2.1	21.3	10.6
Don't have time to use	17.4	19.8	14.4	24.9	4.2
Connection fee is too high	2.2	1.4	2.1	15.3	15.4
Concern that content is harmful	9.0	0.6	0	2.0	2.3
Privacy concerns	-	0.7	0	0.8	0.7
Viruses and security concerns	-	0.7	0	1.6	0.4
Others (Including no reason)	-	26.6	38.1	-	1.7

“Not interested or consider its useless” and “Lack of skills” are the two major reasons of not using the Internet in all the four regions.

But there are still some differences in the most major reasons within the four regions.

In Chinese mainland, Macau and Malaysia, the most main reason for not using the Internet is “lack of skills”.

In Taiwan and Korea, the most main reason for not using the Internet is “Not interested or consider it's useless.”

Internet Development Research in Asia-Pacific region

In order to describe the Internet development tendency in Asian and Pacific regions these years, this part comparatively analyzes the changes of Internet adoption rate from 2008 to 2013, including the growth of Internet penetration, the changes of Internet users' methods, location and purpose, as well as Internet users' characteristics i.e. gender, age, income and education.

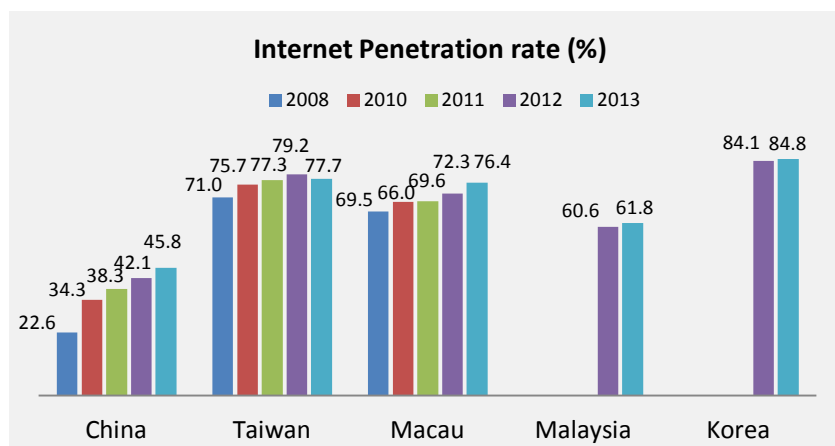
- The Internet adoption rate keeps a rapid growth year by year from 2008 to 2013 in Chinese Mainland. While in other regions, as the Internet adoptions reach high, the growth become small. The Internet penetration rate in Korea is the highest, keeping around 84%.
- The rate of broadband is highest which reaches 100% in Malaysia and Korea, followed by Taiwan (96.6%). However, the rate has decreased in China and Macau, as there are more and more use other methods to access the Internet, such as Wifi, 3G and Fiber.
- With the optimization of family Internet access in Asia-Pacific region, the proportion of household Internet use keeps in high level.
- The proportion of Internet users accessing to the Internet at Internet café in the Chinese Mainland, Taiwan and Macau has all decreased in 2013. While in Malaysia and Korea, the proportions have increased.

- The rate of mobile Internet penetration in the four regions keeps growing from 2008 to 2013.
- In Malaysia, there are more than 90% of Internet users getting online for information in 2013, which is the highest in all. However, the proportion of the Internet users getting online for information has decreased in Taiwan and Korea.
- The percentage of individuals using Internet to get education has decreased in 2013 in Korea while in Malaysia, there is a sharp incensement. The rate of the purpose of getting online education in Taiwan is still very low in 2013.
- The percentage of Internet users getting online to purchase has increased in Chinese Mainland from 2008 to 2013, and the percentage of individuals using Internet to purchase (48.9%) is highest as compared to other regions. In Malaysia, there is a sharp increase in online purchase. However, the rates have declined in Taiwan and Korea.
- In Chinese Mainland, Macau and Korea, female Internet usage keeps increasing. While in Taiwan, the female Internet penetration rate have a 2.8% decrease.
- Comparing to the data from 2008 to 2013, it shows that the number of Internet users aged 55 and above has increased. The penetration rate of this age is largest in Korea in 2013.
- The Internet adoption rate of 6-14 years old adolescents keeps high in the three regions. But in 2013, the percentage of 6-14 years old adolescents using Internet has a little decline.

- The percentage of 14 and younger people use Internet for getting information declined in Taiwan. The proportion of teenagers below 14 using the Internet for information in Macau in 2013 is higher than 2012.

In Chinese Mainland, the proportion of teenagers below 14 using the Internet for leisure has increased in 2013 and which is the highest in all. In other regions, the rate of using the Internet for leisure all has a little decreased.

Internet Adoption

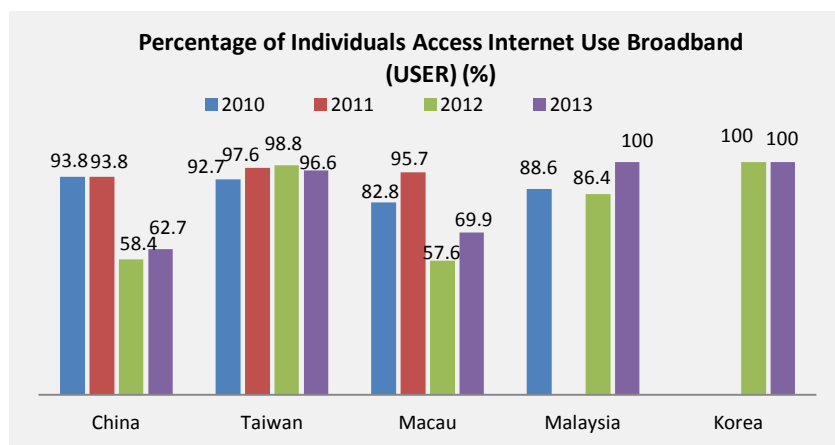


The Internet adoption rate keeps a rapid growth year by year from 2008 to 2013 in Chinese Mainland, which has increased 23.2 percentages.

the Internet adoptions reach high, the growth become small. The Internet penetration rate in Korea is the highest, keeping around 84%.

While in other regions, as

ICT Environment

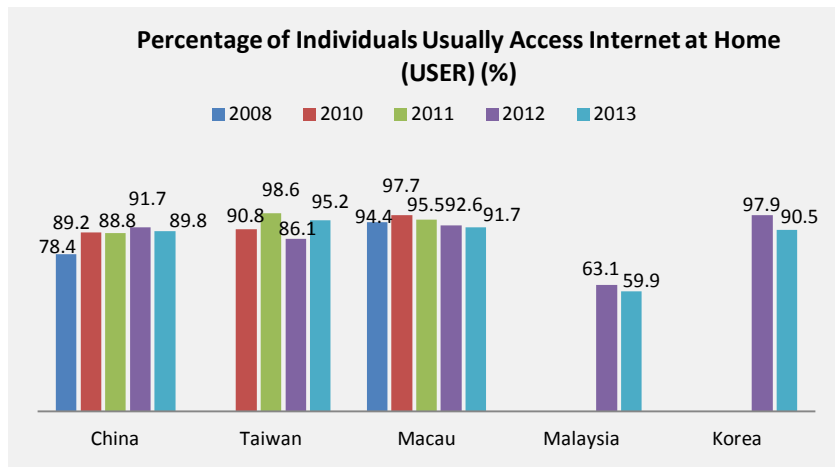


The rate of broadband is highest which reaches 100% in Malaysia and Korea,

followed by Taiwan (96.6%). However, the rate has decreased in China and

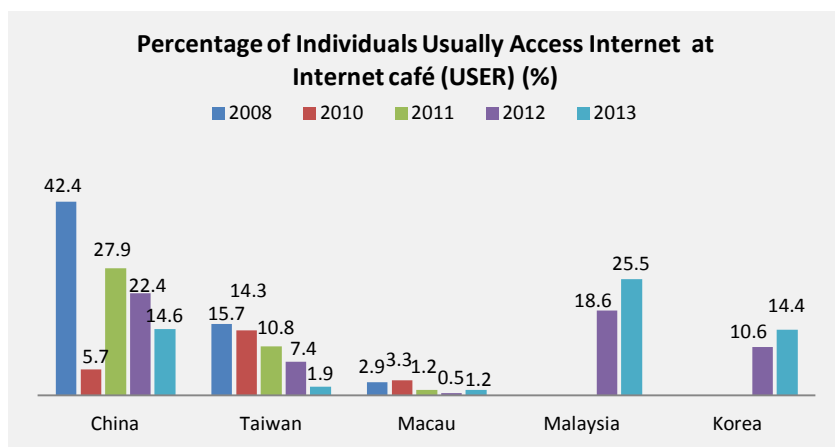
Macau, as there are more and more use other methods to access the

Internet, such as Wifi, 3G and Fiber.



With the optimization of family Internet access in Asia-Pacific region, the proportion of household Internet use keeps in high level.

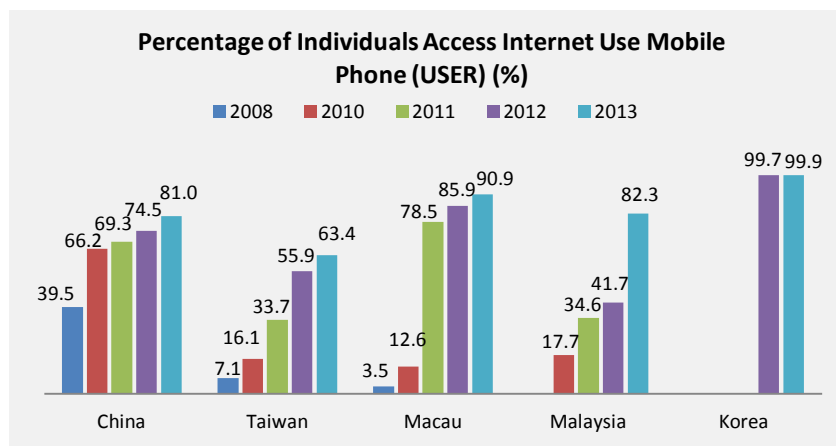
In Malaysia, the proportion of household Internet user has decreased in 2013, which is also the lowest in all.



The proportion of Internet users accessing to the Internet at Internet café in

the Chinese Mainland, Taiwan and Macau has all decreased in 2013. While in

Malaysia and Korea, the proportions have increased.



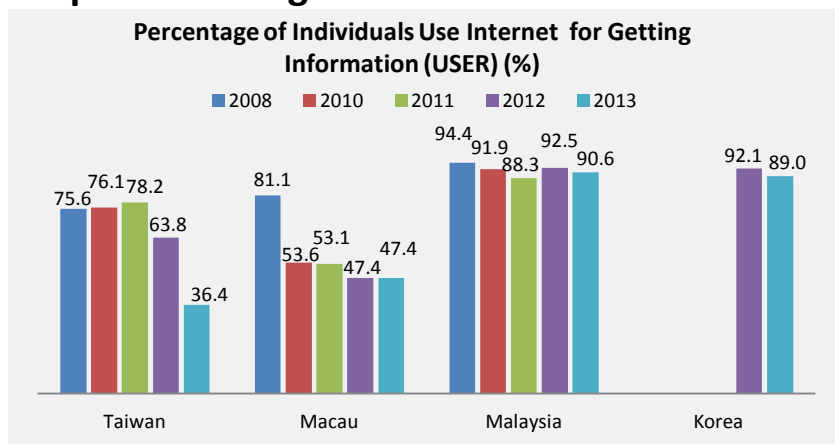
The rate of mobile Internet penetration in the four regions keeps growing from 2008 to 2013.

Especially in Malaysia, there is a sharp increase of mobile Internet users in 2013 increasing from 41.7% to 82.3%.

In other regions, there is also a steady increase in 2013.

In Korea, the percentage of individuals accessing Internet use mobile is the highest, which reaches 99.9%.

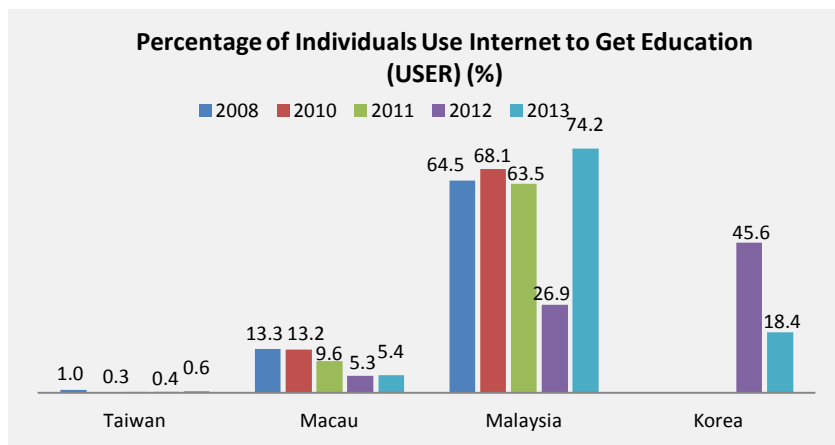
Purpose of Using the Internet



In Malaysia, there are more than 90% of Internet users getting online for information in 2013, which is the highest in all.

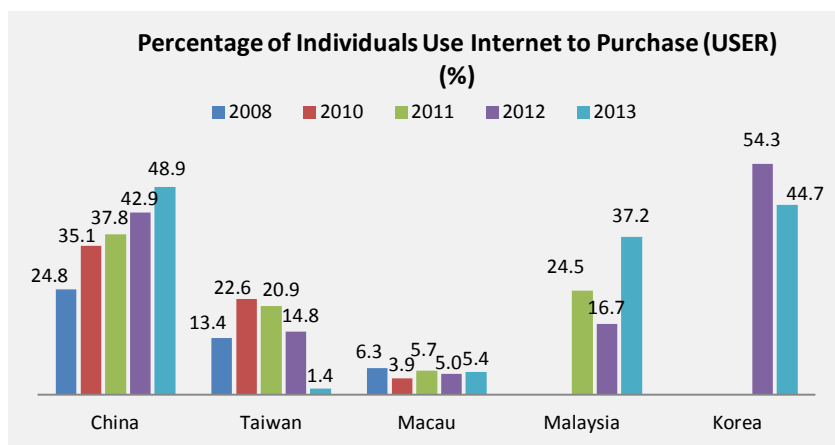
the Internet users getting online for information has decreased in Taiwan and Korea, 27.4% and 3.1% respectively.

However, the proportion of



The percentage of individuals using Internet to get education has decreased in 2013 in Korea while in Malaysia, there is a sharp incensement.

The rate of the purpose of getting online education in Taiwan is still very low in 2013.



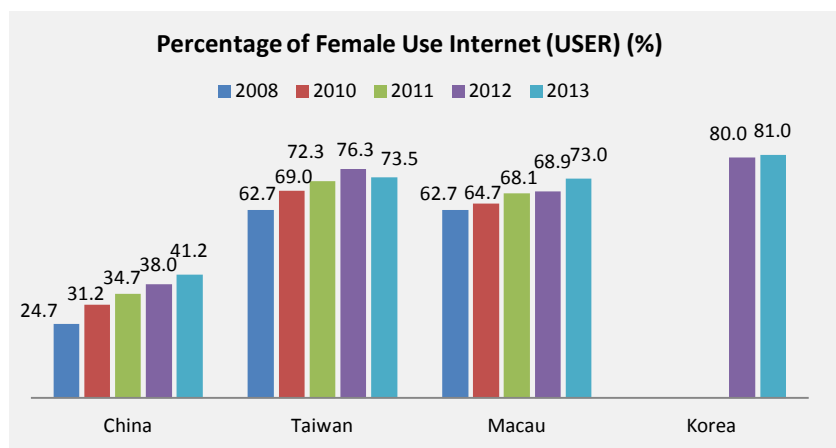
The percentage of Internet users getting online to purchase has increased in Chinese Mainland from 2008 to 2013, and the percentage of individuals using Internet to purchase (48.9%) is highest as

compared to other regions.

In Malaysia, there is a sharp increase in online purchase.

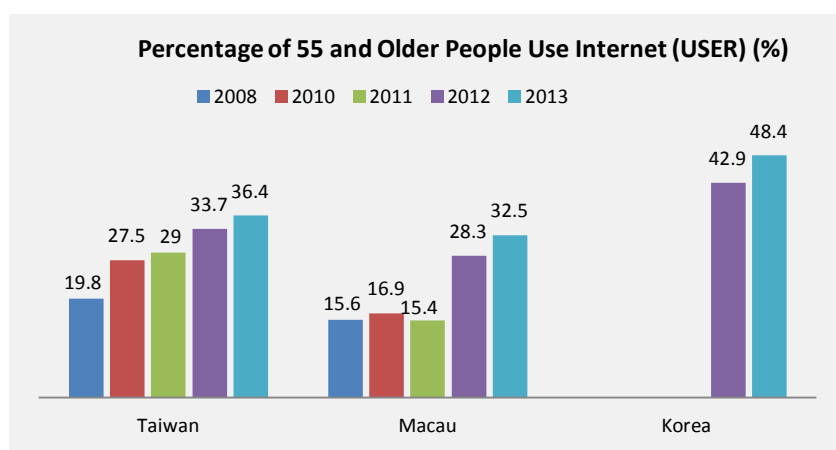
However, the rates have declined 13.4% and 9.6% respectively in Taiwan and Korea.

User Characteristics



In Chinese Mainland, Macau and Korea, female Internet usage keeps increasing.

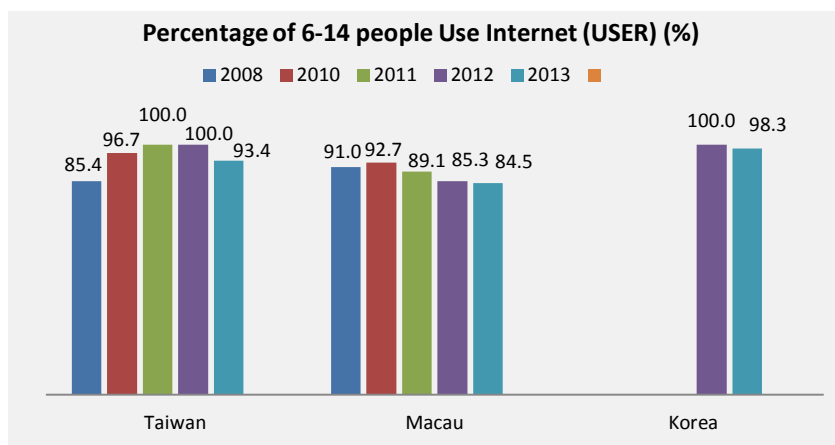
While in Taiwan, the female Internet penetration rate have a 2.8% decrease.



Comparing to the data from 2008 to 2013, it shows that the number of Internet users aged 55 and above

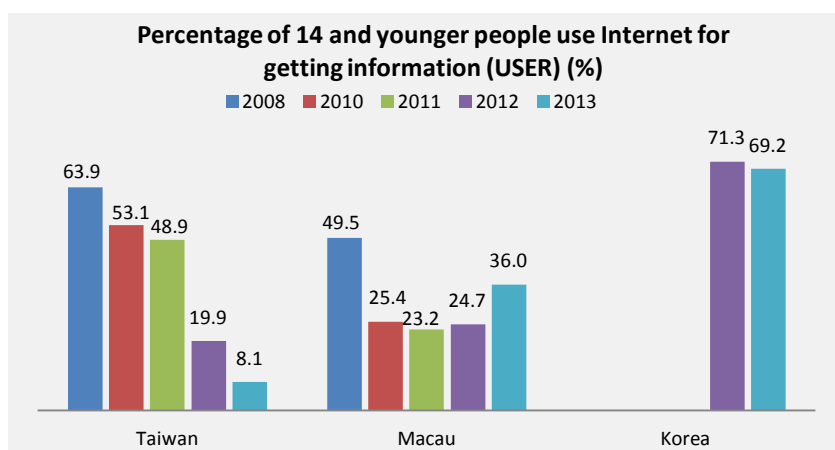
has increased.

The penetration rate of this age is largest in Korea in 2013.



The Internet adoption rate of 6-14 years old adolescents keeps high in the three regions.

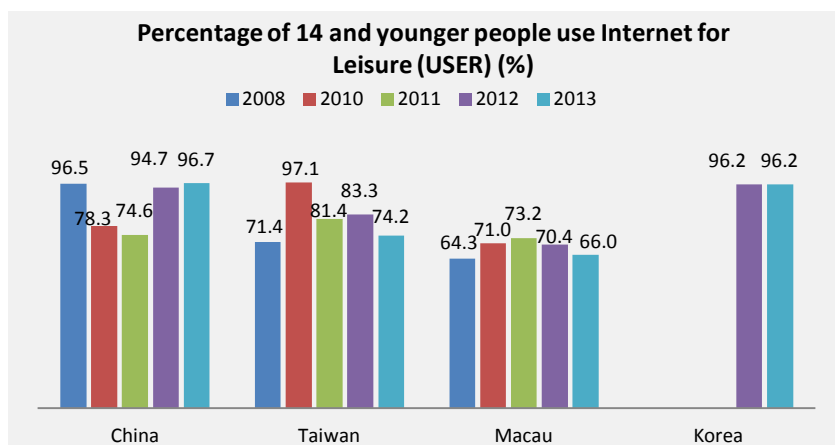
But in 2013, the percentage of 6-14 years old adolescents using Internet has a little decline.



The percentage of 14 and younger people use Internet for getting information declined in Taiwan.

below 14 using the Internet for information in Macau is 36.0% in 2013, 11.3% percent higher than 2012.

The proportion of teenagers



In Chinese Mainland, the proportion of teenagers below 14 using the Internet for leisure has increased in 2013 and which is the

highest in all.

In other regions, the rate of using the Internet for leisure all has a little decreased.

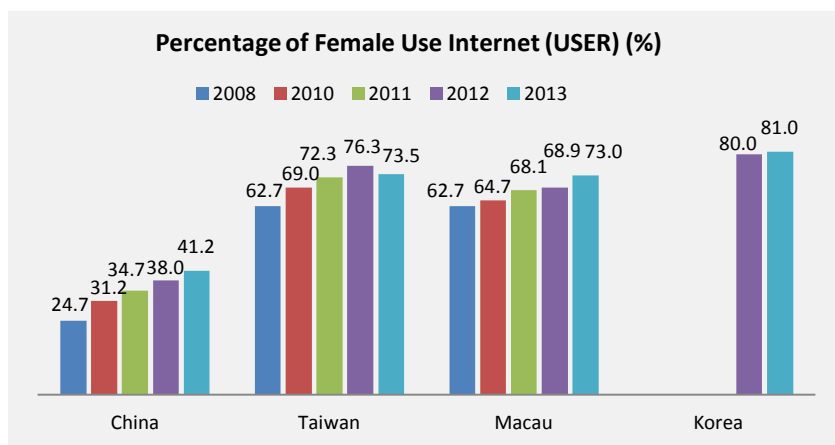
Digital Divide in Adoption

In recent years, more and more attention of Internet technology and applications was paid in developing countries of Asia-Pacific region. The digital divide of Internet adoption among different groups and regions was shrinking.

Although there is still a large gap between developing countries and developed regions in Internet infrastructure and application level, the gaps between different groups

continued narrowing.

According to the general principles of Information Technology Penetration, the speed of Internet penetration has the inverse relationship with its level of development. Therefore, along with the fast growing of Internet penetration in the relatively disadvantaged low-income, low education and women's groups the gap of Internet adoption between groups will narrow continuously.



In Chinese Mainland, Taiwan and Macau, female Internet usage keeps increasing.

The female Internet penetration rate in Korea

(81.0%) is the highest and that in Chinese Mainland (41.2%) is the lowest, but the latter one grows up with a rapid speed.

Conclusion

Based on the survey data from five members (Chinese Mainland, Taiwan, Macau, Malaysia and Korea) of the APIRA, we found that there are some similarities and differences among these five regions.

The Internet penetration rates of Taiwan, Macau and Korea are over 70% in the survey year. Among the five regions, the Internet adoption rate in Korea is the highest one which reaches 84.18%. In Taiwan, Macau and Korea, most of the users have been getting online for equal or more than 8 years.

In all the regions, the higher education obtained, the higher Internet adoption rate is. And the Internet adoption rate among males is higher than that among females. Also, the Higher the household income is, the higher Internet adoption is.

Getting Information and Leisure are two most major purposes for using the Internet in different regions.

Especially in Chinese mainland, the leisure proportion is the highest among all purpose.

“Not interested or consider its useless” and “Lack of skills” are the two major reason for not using the Internet. The Internet popularization should be focused on computer skill training and application development to attract non-users.

The devices of accessing the Internet are varied and computer is no more the most used device in many regions. The proportion of mobile Internet usage has increased significantly. Especially in Korea, the percentage of Individuals accessing Internet use mobile is the highest, which reaches 99.9%.

Appendix I

Survey Methods

China Internet Network Information Center (CNNIC)

– Survey on the Internet Development in China

1. Telephone survey

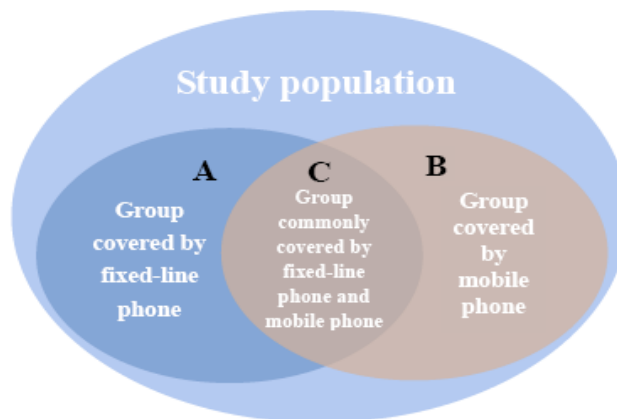
1.1 Survey population

Permanent residents at the age of 6 or above who have fixed-line telephones (including home phones, personal handy phones and dormitory phones) or cell phones

1.1.1 The sample size

The size of the sample is 30,000. 15,000 for the fixed-line phone users and 15,000 for the cell phone users. The samples cover 31 provinces, autonomous regions, and direct-controlled municipalities.

1.1.2 The categories of the population



The survey population is divided into three groups as follows:

Group A: population only covered by fixed-line telephone (phone is used in above picture. Please keep consistent) (residents covered by home phone, personal handy phone users, college students covered by dormitory phone and other

dormitory phone users);

Group B: population only covered by cell phone;

Group C: population covered by both cell phone and fixed-line telephone (the house phone users and cell phone users are overlapped to some extent and the overlapped part is called Group C), $C = A \cap B$.

Due to the overlap, the users in Group C may be sampled repeatedly, which will increase the chances of this group being included in the sample. The estimation bias resulting from this problem will be corrected based on the double sampling theory.

1.2 Content of survey

The survey mainly concentrates on the quantitative and structural feature of Internet users, online conditions, web applications, attitudes of Internet users towards Internet and non-user background in China. The content of survey includes whether interviewees surf the Internet, their background, Internet access behavior of Internet users, online depth and online experience, etc.

1.3 Survey administration

Carry out survey through the system of Computer Assisted Telephone Interview (CATI).

1.4 The Difference between the survey population and the target population

According to our 2005 research, the number of Internet users who do not use any telephone was very small. We believe that the number will keep decreasing along with the development of telecom industry in China. For instance, the number of phone users of our country in the end of 2005 was 740 million, while the total number exceeded 1.2 billion; with popularizing rate hit 94.2 pieces/hundred people by the end of November, 2011. Thus, the hypothesis underpinning this survey is that the number of Internet users uncovered by any phone is negligible.

1.5 Sampling methodology

1.5.1 Two-stage stratified random sampling

To begin with, both the fixed-line and cell phone population is subdivided into 31 segments (strata) based on the 31 provinces/autonomous regions/ direct-controlled municipalities (referred to province hereinafter). The sample size of each province is decided by the square root of last year's sample size.

Within each province, every city/region/county (referred to city hereinafter) is selected, and self weighting sampling is adopted. The sample size of each city is decided by the ratio of 6 and older population with fixed-line telephone in this city to the same population in the province.

1.5.2 Methods to ensure equal probability sampling

The telephone number in each city is selected according to the following methods:

First, select all the central office codes. Second, produce a number of random four-digit numbers according to the size of valid sample in this city. Third, combine the codes and the numbers to form a phone number pool. Finally, order the phone numbers in the pool randomly, and the interviewing phone number will be chosen from this pool.

Taiwan Network Information Center (TWNIC) – TWNIC 2013 Broadband Survey

1. Survey Time

The survey was carried out between May 5, 2014 and May 21, 2014.

2. Sample

A total sample of 3,134 residents in Taiwan aged 12 and above was successfully interviewed.

3. Survey Method

The Computer-Assisted Telephone Interviewing (CATI) was adopted to conduct the survey.

4. Sampling Method

RDD telephone sample.

5. Estimation Method

For estimating the total number of Internet users, three variables including cities/areas, gender and age groups are used for weighting the random stratified samples of interviewees aged 12 and above in Taiwan.

For estimating the total number of Internet households, two variables including cities/areas and the number of members in the household are used for weighting the random stratified samples.

Macao Association for Internet Research – The Macao Internet Project (MIP) Survey

1. Study Population

The 2014 annual survey was carried out between May 30 and June 15, 2014. It was conducted by using a computer-assisted telephone interviewing (CATI) system, targeted at regular residents aged between 6 and 84 years old who speak Chinese (including Cantonese, Mandarin and other dialects) and live in Macau with a residential telephone line.

2. Sample Size

A total sample of 1,000 residents was successfully interviewed in the survey. The sample size gives a sampling error of $\pm 3.16\%$ at the 95% confidence level.

3. Sampling Procedure

All Macau residential telephone numbers formed the sampling frame. In the first step, telephone numbers were randomly selected by a computerized program. Then, with the assistance of the CATI system, all those numbers were dialed. When proven to be a residential number, interviewers requested a Chinese-speaking household person aged between 6 and 84, with the last birthday among other qualified members, to be interviewed. In the event of no answer from the dialed number, the chosen individual was not at home or unavailable for interview, interviewers made call backs up to ten times at different times of different days.

4. Survey Response Rate:

Calculated by Response Rate Formulae 3 (RR3) and Cooperation Rate Formulae 3 (CR3) of the American Association for Public Opinion Research (AAPOR) (for details at <http://www.aapor.org/standarddefinitions>), the response rate of the current survey is 23.7%.

5. Weighting Method

Prior to formal analysis, the data were weighted against the latest Macau Population Census Estimates, in terms of cross-distribution of age and gender. Consequently, the distribution of gender and age of the current sample resembles that of the population.

6. Data Cleaning

A series of mean figures have been reported above, such as average online time per user. As is commonly known, mean averages are vulnerable to extremely large or small values in the data. We have therefore followed the customary practice in data processing: replacing extreme values (defined as larger or smaller than three standard deviations from the mean) with those equal to three standard deviations from the mean.

Averages calculated from the adjusted data are generally about 2-18% smaller than the averages of the original data, which is closer to the parameters of the population.

Malaysia

1. Reference date

The reference date of the survey was set at 21 May 2014. To qualify for inclusion into the sample, a potential respondent must be able to answer “yes” to a screening question on whether he was a user at reference date.

2. Data collection

The survey was conducted by trained interviewers operating out of SKMM CATI Centre located at Wisma Pahlawan, Kuala Lumpur.

In both user and non-user instances, pains were taken to explain to respondents the purposes & objectives of the survey.

Fieldwork started 21 May 2014 and ended on 17 June 2014.

Survey achieved its sample size with a response rate of 35.19%.

3. Target population

The target population is all inhabitants and their households in the states and territories making up Malaysia. The sampled population is all inhabitants reachable by hand phones and their households in the states and territories making up Malaysia.

4. Sample Size

A total sample of 633 was successfully interviewed in 21 May to 17 June 2014. The sample size gives a sampling error of $\pm 5.00\%$ at the 95% confidence level.

5. Sampling Method

RDD Telephone Sample.

6. Data collection

The survey was conducted by trained interviewers operating out of SKMM CATI Centre located at Wisma Pahlawan, Kuala Lumpur. In both user and non-user instances, pains were taken to explain to respondents the purposes & objectives of the survey.

Fieldwork started 15 October 2011 and ended on 21 January 2012.

Survey achieved its sample size with a response rate of 100%.

Korea

1. Survey Time

The survey was carried out between July 1 and September 15, 2013.

2. Sample Size: 77,402

3. Method of Interview

Face to face interview.

4. Targeted Sample

Nationwide households and population aged 3 and over

5. Sampling Method

Multi-stage stratified sampling with clusters

6. Sampling Error (\pm)

0.23%

Appendix II

APIRA Core Question Template

Section I. Questions with Indicators (14 Questions)

1. Do you have computers at home?

- 1) Yes
- 2) No

Indicator: Percentage of household computers in homes

2. Have you ever used the Internet? (Including wired/wireless Internet)

- 1) Yes and I still use it now
- 2) Yes, I used it before, but don't use it now
- 3) No, I've never used it

Indicator: Percentage of individuals using the Internet

3. When did you use the Internet for the first time?

- 1) Year _____, Month _____
- 2) I cannot remember

Indicator: Average years of Internet use and proportion in categories:

- less than 12 months;
- [1 ~3 years);
- [3 ~5 years);
- 5 years and above

4. Where do you usually access the Internet? (Multiple

Selections) 1) At home (including in friends/relatives' home)

2) Workplace

3) School

4) Internet café / Internet bar

5) Community Public access facility (Public library, Public Office, Hotel, Airport)

Other location (Please specify: _____)

Indicator: Percentage of

- home;
- Internet café;
- work place and school;
- Others

5. What type of connection method do you use to access the Internet? (Multiple Selections)

- 1) Dial-up
- 2) ISDN
- 3) xDSL (including ADSL)
- 4) Cable Modem
- 5) Wireless narrowband
- 6) Other
- 7) Other broadband
- 8) Don't know
- 9) Others (Please specify)

Indicator: Percentage of

- dial-up;
- broadband;
- others

6. On average, I use the Internet _____ hours per week.

Indicator: Time spent per week on Internet (median value)

7. What time do you usually access the Internet? (Multiple Selections)

- 1) 1:00
- 2) 2:00
- 3) 3:00
- 4) 4:00
- 5) 5:00
- 6) 6:00
- 7) 7:00
- 8) 8:00
- 9) 9:00
- 10) 10:00
- 11) 11:00
- 12) 12:00
- 13) 13:00
- 14) 14:00
- 15) 15:00
- 16) 16:00
- 17) 17:00
- 18) 18:00
- 19) 19:00
- 20) 20:00
- 21) 21:00
- 22) 22:00
- 23) 23:00
- 24) 24:00

Indicator: Percentage of Internet access by time of the day

8. What is your gender?

- 1) Male
- 2) Female

Indicator: Percentage of each gender

9. Year of your birth _____ (Note: no age limitation)

Indicator: Percentage of 6 age groups:

- 14 and younger;
- 15 ~24; ·25 ~34;
- 35 ~44; ·45 ~54;
- 55 and older

10. What is your educational degree?

- 1) Elementary school and below
- 2) Junior high school
- 3) Senior high school
- 4) Junior college / Community college
- 5) Bachelor
- 6) Master or above

Indicator: Percentage of each category (students and non-students)

11. Your average monthly (household) income? (in local currency)

- | | |
|-------------------|---------------|
| 1) Less than *** | 2) *** to *** |
| 3) *** to **** | 4) ... |
| 5) **** and above | 6) No income |

Indicator: Percentage of 3 classes

- Top; ·Medium; ·Bottom

12. Which area do you come from?

- 1) Urban area
- 2) Rural area

Indicator: Percentage of:

- Urban area
- Rural area

13. How do you trust the Internet?

- | | |
|------------------------|---------------------------|
| 1) Do not trust at all | 2) Distrust |
| 3) Neutral | 4) Trust |
| 5) Completely trust | 6) Don't know/Hard to say |

Indicator: Percentage of 3 categories

- Affirmative
- Average
- Negative

14. How important is the Internet to your daily life/work/study?

- | | |
|-------------------------|---------------------|
| 1) Not important at all | 2) Not so important |
| 3) Neutral | 4) Important |
| 5) Very important | |

Indicator: Percentage of 3 categories

- Important
- Average
- Not important

Section II. Questions without Indicators (3 Questions)

1. What kind of device do you usually use to access the Internet? (Multiple Selections)

- 1) Desk-top Computer
- 2) Lap-top Computer
- 3) Mobile phone
- 4) Internet-enabled television set
- 5) Others (PDA, Game machine with interconnection)

2. For what purposes do you mostly use the Internet? (Multiple Selections)

NOTE: THE JOINT SURVEY REPORT WILL FINALLY COMPARE RESULTS (IN PERCENTAGE) OF THE 13 ITEMS IN BOLD FONTS, THE SUB ITEMS ARE FOR REFERENCE ONLY. (It is optional for members to further survey the sub items when the interviewee gives affirmative answer to the main items)

Main Items

1) For getting information

- ① Goods or services
- ② Job-related issues like recruitment
- ③ Related to health or health services
- ④ Real estate
- ⑤ From government organization/public authorities
- ⑥ Other information/web surfing (including Search Engines)

2) Communication by text

- ① E-mail
- ② Chatting / messenger

3) Shopping/reservation

4) Leisure

- ① Music
- ② Video or computer game (including download program)
- ③ Downloading a movie, programs, images, etc.
- ④ Listening to radio / Watching TV
- ⑤ E-book, magazine, Reading newspaper or downloading

5) Education

- ① Formal education for getting grades (for degree)
- ② Informal education

6) Financial activities

- ① Internet banking
- ② Stock trade

7) Online community

8) Homepages

- ① Own homepage
- ② Mini- homepage, Blog

9) Job Search activities (Online application)

10) Public services

- ① Issuing civil affairs document
- ② Policy proposal/accusation
- ③ Applying for or downloading public form
- ④ Writing online application
- ⑤ Paying for charge by online

11) Internet Telephone

12) Selling goods/services

13) Downloading /upgrading software

3. What's the major reason(s) for your not accessing to the Internet? (Multiple Selections, for non-users)

- 1) Not interested or consider it's useless
- 2) Lack of confidence or skills
- 3) No device (computer, telephone, Modem) or no Internet connections
- 4) Don't have time to use
- 5) Connection fee is too high
- 6) Concern that content is harmful
- 7) Privacy concerns
- 8) Viruses and security concerns
- 9) Others (Including no reason)

Appendix III

APIRA Member Conferences Timeline

1. Member Conferences

APIRA member organizations host annual conference in turn. And the attendance of the conference is totally free. Besides members' survey reports, representatives from interested organizations report on their latest findings discuss on newly emerged Internet technologies and phenomenon, research on Internet information statistical technologies and layout the next year's working plans of APIRA.

- **Prep Conference--The Symposium on Information Statistics of the Internet in Asia-Pacific Region**

September 26~27, 2003 Beijing, China



■ **The 1st International Conference of APIRA**

Theme: Information Statistics of the Internet: Measurement, Analysis and Applications

August 19~20, 2004 Hong Kong - Macau



■ **The 2nd International Conference of APIRA**

Theme: Expanding Application of Internet Statistics, Comparable Measurement, Diverse Analysis and Regional Cooperation

August 25~26, 2005 Seoul, Korea



- **The 3rd International Conference of APIRA**

Theme: Internet Statistics: Utilization & Creativity

August 9~10, 2006 Taipei



- **The 4th International Conference of APIRA**

August 7~9, 2007 Cyberjaya, Malaysia



The 5th International Conference of APIRA

December 20~22, 2008 Lijiang, China



■ The 6th International Conference of APIRA

Theme: Opportunities and Challenges for the Internet in the
Post-Financial Tsunami Era

August 6~7, 2009 Hong Kong, China



- **The 7th International Conference of APIRA**

August 5~6, 2010

India



- **The 8th International Conference of APIRA**

August 11~12, 2011

Taipei



- **The 9th International Conference of APIRA**

August 9~10, 2012 Macau



- **The 10th International Conference of APIRA**

September 23 ~ 25, 2013 Malaysia



2. APIRA Time Line

- From 23rd to 25th September, 2013, the 10th APIRA International Conference with the theme of “Much the

same, yet statistically different” was held in Malaysia by MCMC. This conference was aim to increase the Internet research findings of Asia and expand the influence of APIRA. Mr. Liu Bing from CNNIC was elected to the Chairman, Mr. Angus from Macau as the Deputy Chair, Mr. Koay from MCMC was held up as the Secretary-General of APIRA.

- From 9th to 10th August, 2012, the 9th APIRA International Conference with the theme of “Discovering Certain Numbers in an Uncertain 2012: Application and Implication of Internet Statistics” was held in Macau by MAIR. This conference was aim to increase the Internet research findings of Asia and expand the influence of APIRA. New memberships of NII, RMIT and HKIRC were announced on the 9th conference. Mr. Liu Bing from CNNIC was elected to the Chairman, Mr. Rajesh from India and Mr. Angus from Macau as the Deputy Chair, Mr. Koay from MCMC was held up as the Secretary-General of APIRA.
- From August 11 to 12, 2011, the 8th APIRA International Conference was held in Taipei. Mr. Liu Bing from CNNIC was approved as the Chairman of APIRA, Mr. Koay Hock Eng from MCMC was selected as the Secretary-General of APIRA. The APIRA constitution was successfully amended to create the post of a second deputy Chairman to be filled by direct election from board members. Effectively APIRA will be helmed by a Chairman, assisted by two deputy Chairmen and a Secretary General. The Board further amended the constitution to allow the membership of individuals. These individuals may apply for membership of APIRA and upon consensus of the board may be granted membership.
- From August 5 to 6, 2010, the 7th APIRA International Conference, with the theme of “Internet Access for All - Let’s Make it Happen” was held in Delhi, India by Internet Service Providers Association of India (ISPAI). Mr. Liu Bing from CNNIC was approved as the Chairman of APIRA, Mr. Koay Hock Eng from MCMC was selected as the Secretary-General of APIRA.

- In October 2009, the constitution of APIRA was amended and approved by Board members. The member classification of RMA and AMA has been cancelled in the new constitution
- In September 2009, two institutions from India including Internet Service Providers Association of India (ISPAI) and Cyber Café Association of India (CCAOI) were approved to join APIRA. ISPAI was elected to be the Board member.
- From August 6 to 7, 2009, the 6th International Conference with the theme of "Opportunities and Challenges for the Internet in the Post-Financial Tsunami Era" was held in Hong Kong. The meeting was hosted by City University of Hong Kong. It has been elected by the Board that Mr. Wang En Hai from CNNIC and Mr. Angus from Macau as the Chairman and Deputy Chairman respectively.
- On December 20-24, 2008, the 5th APIRA International Conference was successfully held in Lijiang, China. It was resolved to cancel the member classification of RMA and AMA.
- On December 22, 2008, ePanel Co., Ltd from Chinese Mainland was approved as a new APIRA member by the board at the 5th APIRA annual conference in China.
- From August 7 to 9, 2007, the 4th APIRA Member Conference was held successfully in Cyberjaya , Malaysia by Malaysia Communication and Multimedia Commission (MCMC). During the elections held by the board of directors meeting on August 9, Mr. Cho Chan-Hyeong from NIDA was reelected as the Chairman of APIRA, Mr. Wang Enhai from CNNIC as the Secretary General of APIRA and CNNIC remained the Secretariat of APIRA.
- In April 2007, the Yahoo! Southeast Asia Company in Singapore submitted its application for membership to APRIA and gained approval.
- In January 2007, I-Research Consulting Group in China and the Internet Marketing Council of Korea (IMCK) submitted

their applications for membership to APRIA and gained approval.

- On August 26, 2005, Malaysian Communications and Multimedia Commission (MCMC) were officially approved to join APIRA as a Regular Member of APIRA by the Board on the close-door APIRA board meeting.
- From August, 25 to 26, 2005, the 2nd International Conference and Member Meeting of APIRA, with the title of "Expanding Application of Internet Statistics, Comparable Measurement, Diverse Analysis and Regional Cooperation" was held in Seoul, Korea. The meeting was hosted by NIDA (National Internet Development Agency of Korea, formerly KRNIC). It has been decided by the Board that Mr. Cho Chan-Hyeong from NIDA and Mr. Angus from University of Macau as the Chair and Deputy Chair respectively. Besides, the 3rd APIRA meeting will be held by TWNIC in 2006.
- August 20, 2004, Access Media International (AMI) from Japan has become the regular member of APIRA and All China Strategic Research (ACSR) from Chinese Mainland has been accepted as APIRA associate member.
- From August 19 to 20, 2004, the first Asia-Pacific Internet Research Alliance (APIRA) member meeting, with the title of the 1st International Conference on "Information Statistics of the Internet: Measurement, Analysis and Applications" was successfully held in Macau and Hong Kong. The two local hosts were University of Macau and City University of Hong Kong. During the conference, Mr. Wang Enhai, the deputy director of the Information Service Department of CNNIC was elected as secretary general of APIRA.
- Mar. 3, 2004 CNNIC Formally opened the APIRA website.
- Dec. 25, 2003 the constitution of APIRA was approved by the members.
- Sep. 27, 2003 APIRA was founded in Beijing. The launching group was composed of the meeting participant organizations, including China Internet Network

Information Center, Korea Internet Network Information Center, City University of Hong Kong, University of Macau and Taiwan Network Information Center (TWNIC).

- Sep.26~27, 2003 China Internet Network Information Center (CNNIC) hosted “Asia-Pacific Symposium on the Internet Statistics” in Beijing. Representatives from five countries and regions participated the meeting, sharing the development information of each countries/regions and discussed on the Internet statistical methodologies.

Appendix IV

Joining APIRA

The APIRA welcomes entities from the industry, government agencies, and academic units to join as members. APIRA members are entitled to enjoy the following benefits.

- Attending all the activities and member meetings in APIRA.
- Meeting professionals in the same research field from organizations in other countries.
- Sharing with other members on the newest statistical methodologies and the latest findings of statistical surveys on the regional Internet development, understanding more about the newly emerged Internet technologies and phenomenon.
- Utilizing all information resources accumulated from other members' findings without asking for permission, while it is required to indicate the source of the information.
- Applying for hosting member meetings-a great opportunity to demonstrate your strong points in the field so as to improve your global awareness in low cost (Board members only).
- Carrying out joint surveys on the local Internet development with unified criteria (Board members only) or applying the mature survey methods of APIRA to improve your own surveys.
- Applying for seating in the board - the decision making body of APIRA (Board members only).

More information can be found at

<http://www.apira.org>.