The Romanization of Chinese Language

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Abstract

The Chinese writing form is not a phonetic system and the Chinese characters do not represent the phonology, which, in part, hampers the mass education in China. For a long time to transliterate Chinese sound, native Chinese as well as the westerners have produced quite a number of phonetic systems, which can be divided into two schools: one is composed of Latin Alphabet, most commonly accepted writing letters in the west, and the other is of Chinese writing strokes, more traditional in China. However in terms of initials, finals and tones, each system has its special set of marks. Until now, Hanyu Pinyin has been accepted as the only standard of Chinese Romanization scheme, and has also been acknowledged as the international standard. The creation and adaptation of Hanyu Pinyin is also viewed as the process of acculturation, that is, to adapt the western form of writing letters to the traditional Chinese language.

Keywords: Hanyu Pinyin, Romanization, phonetic systems, acculturation

Chinese characters, or Hanzi, are the modern writing form for Chinese language. They take the form of logograms, do not represent the pronunciation, and also number in tons of thousands, so it is not easy to remember and to write them, both for Chinese people and for foreigners. Some view even holds that it is the complexity of Chinese writing system that have hampered China's mass education and cultural exchange, so it is not only necessary but also urgent for Chinese people to develop a phonetic system to transcribe their native tongue.

I. The brief history of Chinese Romanization

Since Chinese written form does not reflect the pronunciation of each word, in ancient time, Chinese people have designed two major methods to indicate the sound of each word: the one is called "straight tone" (直音法), that is, to indicate the pronunciation of one character by citing another character which shares the same or similar pronunciation with the given one; the second is called "anti-cut method" (反切法), that is, to show the sound of one character by using two other characters, the first having the same initial as the given one and the second having the same finals (with or without

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final nasal) and tone. For example, the pronunciation of 同 (tóng) is indicated as 徒红切, meaning a combination of the initial "t" from 徒 (tú) and the finals plus nasal "óng" from 红 (hóng). This method of phonetic notation, which featured in using the pronunciation of one character to represent the sound of the other one, did not popularize much since the limitation in itself.

Systematic romanization can be traced back to the Ming Dynasty around 1600. At that time, Jesuit missionaries like Matteo Ricci, Nicolas Trigault and others came to China to learn Chinese and to promote Christianity. In order to facilitate their study, they began to use Latin alphabets to transliterate Chinese language. In the following 200-300 years, this Latin alphabet system were only within foreign missionaries, not widely used among the Chinese people. In 1867, Thomas F. Wade, the British ambassador in China, developed anther system to transliterate Chinese. Later this method was revised and completed by Herbert Allen Giles, who succeeded Wade as professor of Chinese at Cambridge. Their joint system is known as Wade-Giles and has been preferred as the standard for the romanization of Mandarin Chinese for the majority of the twentieth century. It has been so widely used that even today, the common names of certain locations are still spelled in this system, such as Peking (北京, Pinyin: Beijing), Tsinghua (清华, Pinyin: Qinghua), etc. In 1943, the Yale sinologist George Kennedy invented the Yale system (also known as Yale Romanization of Mandarin), which is aimed to help Americans to learn Chinese. All above-mentioned systems have contributed, in some degree, to the development of Hanyu Pinyin which has replaced its predecessors since 1958.

Chinese indigenous romanization began in the late Qing Dynasty. In the following yeas, Chinese scholars took an active participation in the process of Chinese romanization. During the period of Qinyinzi Yudong (切音字运动), quite a number of programs have been created and some of them created a big impact on the later systems. Later, the Commission on the Unification of Pronunciation created a system called Zhuyin Zimu which was based on Chinese writing strokes. It is reported that a draft was released on July 11, 1913, but it was not officially proclaimed until November 23, 1928. It was later renamed first Guoyin Zimu and then, in April 1930, Zhuyin Fuhao, or Zhuyin. In 1923, the Ministry of Education of National Government initiated a National Language Unification Commission, and five scholars who strongly advocated Chinese romanization, formed an independent working subcommittee. They developed a system called Guoyuluomazi (国 语罗马字) and released it on September 26, 1928. This system has been decreed as the standard for Chinese romanization, and has produced so much influence that it is still being used in the Taiwan region. At the same time, many communist revolutionaries took part in this process. In 1931, Qu Qiubai's Ladinghua Xinwenzi (瞿秋白的拉丁化新文字) was adopted at a conference by Chinese nationals in the Soviet far east. It was used to educate workers in the Soviet far east, and was also extensively used in Yan'an (延安), the base of the Chinese communist revolution.

Hanyu Pinyin was developed in the 1950s based on earlier forms of romanization of Chinese. It was published at China's first session of the Fifth National People's Congress held in 1958 and later was further adopted by the International Standard Organization as

an international standard for Chinese phonetic transcription in 1982, with the note as ISO 7098.

Chinese National Language Law published in 2000 confirmed that Hanyu Pinyin Fang'an is the only standard and guide for transliterating Chinese national common language, and the names of people and places should be added in Hanyu Pinyin form.

Hanyu Pinyin, based on Latin Alphabet, has been widely used in teaching, reading and writing in China, and has been accepted as the only standard and guide to transliterate Chinese language.

1. Early western-design of the Latin alphabet systems

The romanization of Chinese starts with the Chinese phonetic transcription system which the westerners fancied. Since the Ming Dynasty, with the development of communication between China and the West, Westerners have developed a variety of Latin alphabet programs to learn Chinese language.

(1) Ricci-Trigault System

Matteo Ricci (1552–1610), the Italian Jesuit missionary, came to China in 1583. While he was staying in China, Matteo Ricci and Michele Ruggieri compiled a Portuguese-Chinese dictionary, the first in any European language, in which they invented a system for transcribing Chinese words in the Latin alphabet. In 1605, Matteo Ricci published Xizi Qiji (《西字奇迹》; "Miracle of Western Letters") in Beijing. This was acknowledged as the first trial to use the Roman alphabet to write the Chinese language. Years later, Luo Changpei, a famous Chinese linguist, based on this writing records, sorted out a phonetic system containing 26 initials and 44 finals.

Another Jesuit missionary Nicolas Trigault (1577–1628) came up with a romanization system in his Xiru Ermu Zi(《西儒耳目资》; "Aid to the Eyes and Ears of Western Scholars") which was published in Hangzhou in 1626. It contains characters, phonetics, and definitions, and uses Latin letters to transliterate Chinese characters, serving as an aid to the eyes and ears of Westerners who wished to learn Chinese. The author acknowledged that he followed an earlier work by Matteo Ricci, who used a 25-letter alphabet to form a transliteration system. The alphabet system consisted of five vowels, 20 consonants, and five tone marks to spell Chinese syllables. Based on the Ricci work, Trigault created a revised system, which was later called the Ricci—Trigault System.

(2) Wade-Giles System

Wade-Giles was developed by Thomas Francis Wade, a scholar of Chinese and a British ambassador in China who was the first professor of Chinese at Cambridge University. In 1867, Wade published his first textbook on the Beijing dialect of Mandarin in English, Yu Yan Zi'Er Ji(《语言自迩集》),which became the basis for the later phonetic notation. Later, this system was revised and improved by Herbert Giles and their combined system was called the Wade-Giles, or sometimes abbreviated as Wade. The innovation of the Wade-Giles system was that it indicated tones, and used diacritic mark "'" to represent the aspirated initials.

Wade-Giles popularized both in China and in the international world since it was announced, and was widely used to spell the Chinese name, place names and so on until 1958, the year when Hanyu Pinyin Fang'an was formally issued. However, though Wade-Giles has not been used in recent years, some words are still spelled with this system, such as I-ching (Yijing, 易经), Tai-chi (Taiji, 太极) and so on. Chieses word 功夫is spelled as "Kung Fu", kung1 fu1, in Wade-Giles, while gōng fu in Chinese pinyin, the differences in the two systems are clear to notice. Nowadays Wade-Giles is only being used in Hong Kong, Macao and Taiwan regions.

(3) Yale System

The Yale system was created at Yale University in 1948 by George Kennedy who was from Yale University's Far Eastern Language Research Institute. It was firstly used in a textbook called *Speak Chinese*. Due to its relative simplicity to learn and to write, it was once popular in some American institutions where Chinese was taught. The main features of the Yale system are shown in the followings: (1) to use Beijing dialect as the standard phonology; (2) to use "b, d, g" to show the non-aspirated plosive sound, while "p, t, k" to show the aspirated plosive sound, the mark "'" used in Wade-Giles has been canceled; (3) to use "y, w, yw" to show head vowl, for example: tyan (\mathcal{F}) , gwo (\mathbf{E}) , jywe (\mathbf{G}) ; (4) to use "z, r" to show the two tongue vowels / 1/ and / 1/ respectively; (5) to use different diacritic marks to show the four tones: first tone "–", second tone " ~", third tone " ~", and fourth tone " ~"; (6) to transliterate Chinese in the form of words instead of syllables.

2. Qieyinzi Yundong (切音字运动, Movement for New Phonetic Alphabet)

Chinese people never stop their attempts to create a phonetic system and reform their writing system. The period from the late 20th century to 1920s was known as Qieyinzi Yundong (切音字运动, Movement for New Phonetic Alphabet). During this period, many patriotic Chinese came forward with theories for reforming the written form and formulated some systems for phonetic alphabets. Chief among them were the theory of Qieyinzi proposed by Song Shu (宋恕) in 1891, the Qieyin Xinzi (切音新字, New Phonetic Alphabet) invented by Lu Zhuangzhang (卢戆章) in 1892; the Guanhua Zimu (官话字母, An Alphabet for Mandarin Chinese) by Wang Zhao (王昭) in 1901 etc.. All these phonetic alphabet systems can be divided into two schools according to the form of the letters, one advocating the adoption of Latin letters, the other the creation of a new alphabet. According to statistics, from 1892 to 1910, 28 programs have been produced and put in trial use. Among them, 14 programs adopted bihua (笔画, Chinese characters strokes), 5 on suji (速记, shorthand), 5 on Latin alphabets, 2 on digital numbers, 1 on the self-made symbols, and 1 kang youwei's system; Judged from the structure of syllables, 17 were based on the two-segments, 4 on single segment, and 1 on triple-segments, the other 6 were not clearly defined. Judged from the pronunciation, 10 were based on the standard pronunciation, 9 on regional dialects, and 9 were not clear. On the whole, the mainstream of the phonetic movement is to spell the standard dialect based on the two-segment structure with Chinese characters strokes.

In 1913, zhuyin zimu (注音字母, phonetic transcript) was introduced by the Commission on the Unification of Pronunciation and officially promulgated in 1918 by the then Ministry of Education. This system was inspired by Japanese kana, and based on Zhang Taiyan's shorthand, and now still being used with Hanyu Pin in some dictionaries.

The following table shows the origin of Zhuyin symbos and their corresponding parts in IPA and Hanyu Pinyin.

Zhuyin	origin	IPA	Hanyu Pinyin
ケ	From 勹, the ancient form and current top portion of 包 bāo	р	b
タ	From"攵", the combining form of 攴 pū	ph	р
П	From □, the archaic character and current radical ' mì	m	m
C	From ☐ fāng	f	f
力	From archaic form of 刀 dāo	t	d
 去	Upside-down form of 子 zǐ	th	t
3	From the archaic form of ${\cal P}_{\!\!J}$ nai	n	n
为	From the archaic form of 力 lì	I	1
((From the obsolete character 浍 guì/kuài, means river	k	g
5	From the archaic character 5 kǎo	kh	k
厂	From the archaic character and current radical \sqcap hàn	х	h
Zhuyin	Resources	IPA	Hanyu Pinyin
1	From Chinese character — yī	i	i
X	From $ imes$, ancient form of \pm wǔ	u	u
Ц	From the ancient character \sqcup qū	у	ü
Υ	From Y yā	а	а
ਟ	From 呵 hē	0	О
さ	Derived from its allophone in Standard Chinese, $ \mathcal{T} \mathrm{e} $	Υ	е
せ	From 也 yě	ε	ê

3. Gwoyeu Romatzyh (国语罗马字)

Since 1911, fine scholars like Lu Xun (鲁迅), Hu Shi (胡适), Li Jinxi (黎锦熙), Lin Yutang (林语堂), Zhao Yuanren (赵元任), Qian Xuantong (钱玄同), etc., were all ardent supporters and participants of Chinese romanization. In 1917, Cai Yuanpei (蔡元培) initiated the establishment of the "Mandarin Research", and proposed to put Beijing dialect as the basis for standard pronunciation, thus to standardize and implement the common language of the Han nationality. Later, "National Dictionary" was firstly published in 1919, with some revision, was republished in 1921, and took the title as "Revised Dictionary of the Standard Pronunciation". Numerous designs were proposed from then on. In 1928, the Education Ministry of the nationalist government announced the Gwoyeu Romotzyh Pinin Faashyh (《国语罗马字拼音法式》) which was designed by

Liu Fu (刘复)、Qian Xuantong (钱玄同)、Li Jinxi(黎锦熙) and Zhao Yuanren (赵元任) and decreed that it would be used as the standard for Chinese romanization. Gwoyeu Romatzyh does not use any diacritic tone marks, but employs an ingeniously designed set of tonal spellings to mark tones. Later, in 1931, Qu Qiu-Bai (瞿秋白) and Wu Yuzhang (吴玉章) devised the Latinxua Sin Wenz (拉丁化新文字,New Latinized Writing). Among all these Latin-alphabet-based phonetic systems, the last two are relatively complete and are far better than their predecessors, which provide the basis for the formulation for Hnyu Pinyin.

4. Hanyu Pinyin Fang'an《汉语拼音方案》

Hanyu Pinyin was developed as part of a Chinese government project in the 1950s. On October 20, 1949, "the Committee for Reforming the Chinese Written Language" was established. At its first meeting, it made a public announcement that the mission of the committee was to reform the Chinese written form. From 1952, the committee developed a system based on Chinese writing strokes. From 1950 to 1955, a total of 653 Chinese phonetic transcription programs have been sent to the committee by 633 Chinese from domestic and overseas, and 264 systems were selected as an important reference for the development of a new phonetic system. The selected programs consists of several forms such as bihua (strokes of Chinese character), Latin alphabet, Slavic letter, combination of different letters, suji (shorthand), jiaming (kana), caoshu ("running" characters) and xingshu (diagram-numeral) etc.

On September 26, 1956, Wu Yuzhang, director of the committee, made a suggestion in a report that the Latin alphabets should be used in the new phonetic system since they were the most widely used in the western languages. With his suggestion, the first draft of Hanyu Pinyin in Latin letters was published on February 12, 1956 and was approved and adopted at the Fifth Session of the 1st National People's Congress on February 11, 1958.

Since then, Chinese government published a series of documents and policies to ensure the legal status of Hanyu Pinyin in language using and language learning. In January 1981, the government bureaus including the Chinese Committee on Geographical Names, the Chinese Ministry of Foreign Affairs, the Chinese Reform Committee and the State Bureau of Surveying and Mapping jointly announced that "Hanyu Pinyin should be used as the only rule to spell names (including the names of Taiwan) in the publication of the map." At present, China's geographical names are all written in Hanyu Pinyin except some special locations, such as Lhasa, (拉萨), Hohhot (呼和浩特), Urumqi (乌鲁木齐), Harbin (哈尔滨).

Some documents have been published by the Chinese government to standardize the usage and writing of Hnayu Pinyin, such as "The Basic Rule of Hanyu Pinyin Orthography" (GB / T 16159-1996), issued in January 1996, re-issued its revision version in June 2012 (GB / T 16159-2012), which was supposed to be put in effect since October 2012. "Pinyin Rules for Names" (GB / T 28039-2011) was released in October 2011 and be put into use since February 2012.

On October 31, 2000, the Eighth Meeting of the Ninth National People's Congress passed "The Chinese National Common Language Law", further established the legal status of Hanyu Pinyin. The Article 18 provides that Hanyu Pinyin should be used as a spelling and phonetic transcription tool in the Chinese language, the uniform standard for the spelling of Chinese names, places and documents, and shall be used in all fields. The law also confirmed that Hanyu Pinyin should be used in the primary education, and made a certain rules about when and how to use Pinyin.

In the international community, the Third United Nations Conference centered on the Standardization of Geographical Names adopted Hanyu Pinyin as the Standardization of the Chinese geographical names. In June 15, 1979, the United Nations Secretariat made it clear that "... ... From June 15, 1979, Chinese Pinyin would be used by the United Nations Secretariat to spell the various names. From that date, all documents drafted, translated or issued would be written in Hanyu Pinyin." In 1982, the International Organization for Standardization adopted Hnayu Pinyin (1991 Revision) as the international standard (ISO 7098).

On December 15, 2015, the International Organization for Standardization officially published "ISO 7098 Information and Documentation - Chinese Roman alphabet spelling" 2015 revision. The revised rules mainly include the rules of Chinese phonetic word segmentation, and more specific rules and explanations are given concerning the spelling, standard tone and punctuation conversion of names and names. The principles and methods of conversion between Chinese characters and phonetic alphabet are presented, including the "General Standard of Chinese characters table", and references of Mandarin syllable form table. The revised version is more in line with the current needs of the development of the information age, and become more scientific and practical.

For Taiwan, on September 16, 2008, Taiwan's "Executive Yuan of the Republic of China" passed a proposal to abandon the "Taiwan Tongyong pinyin" in the period of the Democratic Progressive Party (DPP), accept Hanyu Pinyin as the transliteration standard which should be put in effect since January 1, 2009. But the names on Taiwan passport are still kept in traditional Wade-Giles system or Taiwan Tongyong pinyin. In Singapore, Malaysia, and the Philippines, Pinyin has entered into primary school for teaching.

It should be strongly stated that Hanyu Pinyin is the Chinese phonetic transcription system, rather than Chinese orthography or Chinese writing system.

II. Comparison of different romanization systems

The following table shows the differences in the various romanization systems.

1. Initials

IPA	р	ph	m	f	t	th	n	I	k	kh	х
Ricci-Trigault	р	p'	m	f	t	t'	n	I	c, q	c', q'	h
Wade-Giles	р	p'	m	f	t	t'	n	I	k	k'	h
Yale System	b	р	m	f	d	t	n	I	g	k	h
Gwoyeu Romatzyh	b	р	m	f	d	t	n	1	g	k	h
Hanyu Pinyin	b	р	m	f	d	t	n	I	g	k	h
Taiwan Tongyong Pinyin	b	р	m	f	d	t	n	I	g	k	h
Zhuyin	ク	タ	П	L	力	 去	3	为	<<	万	厂

Initials continued

IPA	ts	tsh	S	tş	tşh	ş	ζ	tç	t¢h	Ç
Ricci-Trigault	ç, c	ç', c'	S	ch	ch'	х	j, g	ch	ch'	х
Wade-Giles	ts, tz	ts', tz'	s, sz	ch	ch'	sh	j	ch(i)	ch' (i)	hs
Yale System	dz	ts	s	j	ch	sh	r	ју	chy	sy
Gwoyeu Romatzyh	tz	ts	s	j	ch	sh	r	ji	chi	shi
Hanyu Pinyin	Z	С	s	zh	ch	sh	r	j	q	х
Taiwan Tongyong Pinyin	z	С	s	jh	ch	sh	r	ji	ci	si
Zhuyin	P	ち	4	业	1	P	II	4	<	Т

All the above systems are based on Latin letters except Zhuyin which used strokes, and the differences mainly lied in the representation of certain phonetic symbols, the analyses are listed as below:

(1) The aspirated sound

Chinese language featured in its pair of sound: voicing vs. voiceless, which cannot be shown in Latin alphabets. Both Ricci-Trigault and Wade-Giles systems took the diacritic mark of "'" as the indicator of aspirated sound or non-aspirated sound, such as p-p', t-t', k-k'; other systems took a fixed set of letters such as b-p, d-t, g-k

E.g:

system	半p-盼ph	单t-坛th	干k-看kh	站ts-产tsh
Wade-Giles	pan-p'an	tan-t'an	kan-k'an	chan-ch'an
Hanyu Pinyin	ban-pan	dan-tan	gan-kan	zhan-chan

(2) the affricate sound

There are three pairs of affricate sounds in Mandarin Chinese, such as /ts, tsh/, /tş, tşh/, /t¢, t¢h/ which can be best written in a double Latin letters instead of a single one. In Ricci-Trigault system, "ch, ch', x" represent /tʃ/, /tʃh/,/ʃ/respectively, /tş/, /tşh/, /ş/ and /t¢/, /tħ/, /¢/have been shown in other forms. For example

Systems	济南	青岛
Wade-Giles	Tsinan	Tsingtao
Hanyu Pinyin	Jinan	Qingdao

(3) /c/

"x, hs, sy, shi, si "have been used to show the sound of $/t_c$, $t_ch/and /c/$;

System 江西 无锡

Wade-Giles Kiangsi Wusih/Wuhsi

Hanyu Pinyin Jiangxi Wuxi

2. Finals

IPA	а	О	γ	ε	i	١, ١	u	У	Åı	ai	ei	au	ou
Ricci-Trigault	а	О	е	е	i	ĕ,ü,ụ	u	iu	ih	ai	ei	ao	eu
Wade-Giles	а	О	ê	eh	i	ih	u	ü	êrh	ai	ei	ao	ou
Yale System	а	wo	е	е	i	z, r	u	yu	er	ai	ei	au	ou
Gwoyeu Romatzyh	а	0	е	ê	i	У	u	iu	er	ai	ei	au	ou
Hanyu Pinyin	а	0	е	ê	i	-i	u	ü	er	ai	ei	ao	ou
Taiwan Tongyong Pinyin	а	0	е	-	i	ih	u	yu	er	ai	ei	au	ou
Zhuyin	Υ	ਟ	さ	せ		帀	Х	Ц	儿	历	7	幺	ヌ

Finals continued

IPA	ia	iε	iau	iou	ua	uo	uai	uei	уε
Ricci-Trigault	ia	ie	iao	ieu	oa	uo	uai	uei	iue
Wade-Giles	ia	ieh	iao	iu	ua	uo	uai	ui	üeh
Yale System	ya	ye	yau	you	wa	wo	wai	wei	ywe
Gwoyeu Romatzyh 1	ia	ie	iau	iou	ua	uo	uai	uei	iue
Hanyu Pinyin	ia	ie	iao	iou	ua	uo	uai	uei	üe
Taiwan Tongyong Pinyin	ia	ie	iao	iou	ua	uo	uai	uei	yue
Zhuyin	ΙY	せ	幺	ヌ	ΧY	メご	メ历	メて	니반

Finals continued

IPA	an	iεn	uan	yεn	ən	in	un	yn
Ricci-Trigault romanization	an	ien	uan	iuen	en	in	uen	iun
Wade-Giles	an	ien	uan	üan	ên	in	un	ün
Yale System	an	yan	wan	wen	en	yin	wen	yun
Gwoyeu Romatzyh 1	an	ian	uan	iuan	en	in	uen	iun
Hanyu Pinyin	an	ian	uan	üan	en	in	uen	ün
Taiwan Tongyong Pinyin	an	ian	uan	yuan	en	in	un	yun
Zhuyin	马	马	メ马	山马	4	14	ХЬ	44

Finals continued

IPA	aŋ	iaŋ	uaŋ	əŋ	iŋ	uəŋ	uŋ	yŋ
Ricci-Trigault	am	iam	uam	em	im	oem	um	yum
Wade-Giles	ang	iang	uang	êng	ing	-	ung	iung
Yale System	ang	yang	wang	eng	ying	weng	ung	yung
Gwoyeu Romatzyh 1	ang	iang	uang	eng	ing	-	ung	iung
Hanyu Pinyin	ang	iang	uang	eng	ing	ueng	ong	iong
Taiwan Tongyong Pinyin	ang	iang	uang	eng	ing	-	ong	yong
Zhuyin	九	九	メカ	7	12	メム	メム	니스

The variations are shown in the following:

(1) /ı. l/

Letters such as " \check{e} , \dot{u} , \dot{u} , \dot{i} h, \dot{z} , \dot{r} , \dot{y} , \dot{i} h" have been sued to show /1, \dot{V} . For example, " \Box \Box ": Szechwan (W-G), Sichuan (Hanyu Pinyin).

(2) /y/

"iu, \ddot{u} , yu" have been used to show the vowl/y/, while "iue, \ddot{u} eh, ywe, \ddot{u} e, yue" have been used to represent/yɛ/, "iuen, \ddot{u} an, wen, iuan, yuan" to show /yɛn/, "iun, \ddot{u} n, yun, yun" to show /yn/, and "yum, iung, yung, iong, yong" to represent /yŋ/. For example:

System	绿-y	略 -yε	元-yɛn	云-yn	用-yŋ
Wade-Giles	liu	liue	yüan	yün	yung
Hanyu Pinyin	lü	lüe	yuan	yun	yong

(3) The seperation and combination of /uən/and /un/

/uəŋ/and /uŋ/ are a pair of complementation sounds, that is /uəŋ/ cannot be followed with the initials and /uŋ/ must be with initials. In fact, M-T, Yale and Hanyuin stressed their seperation, while W-G, G-R all stressed their combination.

System	公-uŋ	翁 -uəŋ
Wade-Giles	kung	ung, wng
Hanyu Pinyin	gong	weng

3. The table of tone

Hanyu Pinyin	阴平	阳平	上声	去声	轻声
Ricci-Trigault	-	r	`	,	
Yale System	-	,	~	`	
Wade-Giles	1	2	3	4	
Yale Spelling System	No mark	vowl+r	Double vowls	+h	No mark
Gwoyeu Romatzyh	-	,	~	`	No mark
Hanyu Pinyin	No mark	,	~	`	
Taiwan Tongyong Pinyin	No mark	,	~	`	

Chinese is a tonal language, while the tone is a supersegmental, and cannot be shown with vowel and consonant. In each variety of romanization systems, quite a different ways have been taken to show the tone of Chinese language. In summery, the following four methods have been most commonly used: (1) The diacritic marks are added to the vowel. It should be made clear that the symbols used in Wade-Giles is different from the other phonetic systems, which may be inferred that the tone of Chinese dialect recorded in the Ming Dynasty is not the same as the present Beijing dialect; (2) with Arabic numerals 1, 2, 3, 4 to show the four tones, such as in Wade-Giles system; (3) with no indication of tones. It has to been mentioned that Gwoyeu Romatzyh has taken so complicated tonal indications that the learners found it hard to learn and to use.

III. The Evaluation of Hanyu Pinyin

It has been clearly stated in "The Chinese National Common Language Law (2000)" that Hanyu Pinyin is the only rule for Chinese transliteration. It is the standard for spelling Chinese names, places and documents and should be used in the fields that Chinese character cannot be used.

Hanyu Pinyin has played an active role in the following aspects: (1) wiping out the illiterate at the early of 20th century, and promote the mass education; (2) promoting of Putonghua; (3) standardizing Chinese transliteration with Latin alphabets; (4) facilitating the Chinese information processing; (5) providing references and basis for the creation as well as the reform of ethnic minority languages in China, etc.

In the aspect of letter design, Hanyu Pinyin uses 26 modern Latin letters and some diacritic marks to represent the phonetic system of Mandarin Chinese. As for the corresponding Chinese syllabic structure, Hanyu Pinyin is composed of three parts: initials, finals and tones. The additional symbols include the tonal marks, such as mā 妈、má 麻、mǎ 马、mà 玛、ma 吗,together with the two diacritic marks on the letter ü/y/ and ê / ϵ /. Since it has accepted the merits of its predecessors, such as Gwoyeu Romatzyh, the Latinxua Sin Wenz, the Wade-Giles system and Zhuyin, Hanyu Pinyin is relatively simple and easy to learn and use.

But in practical usage, Pinyin has caused some unexpected problems, as listed as the following:

1. Diacritic marks on the head of letter "ü" made it impossible to type in the computer keyboard.

In practice, "ü" is often replaced by "yu" or "v", that is, the four syllables "nü, lü, nüe, lüe" of Chinese pinyin are respectively spelled as "nyu, lyu, nyue, lyue" or "nv, lv, nve, Nve". Since "v" is a consonant, and has been specified to spell the loan words, so "yu" instead of "u" is more common. In the Chinese electronic passport issued by the Chinese Public Security Department, names with "u" are rewritten as "yu", for example, "Lu" as "Lyu". This letter is written as "yu" and "iu" in Taiwan Tongyong Pinyin and Gwoyeu Romatzyh.

- 2. The tonal marks made it inconvenient in the keyboard input. In practice, people will choose either with none tonal marks, or add some numbers at the end of the syllable to show the different tones, such as A) Yin Ping, the first tone, B) Yang Ping, the second tone, C) Shang Sheng, the third tone), D) Qu Sheng, the fourth tone. Other romanization systems also use diacritic marks to show tones, but the Hanyu Pinyin and Gwoyeu Romatzyh do not mark the light tone, while Taiwan Tongyong pinyin and Zhuyin do not mark the tone of Yin Ping (the first tone).
- 3. The usage of some letters showing certain sound is not in accordance with the international principles. For example, the letters "b, d, g" will be read as voiced sound / p, t, k /, while "p, t, k" to be read as voiceless sound / ph, th, kh /. This variation make foreigners find it extremely difficult to pronounce those sounds correctly. Take an instance, "Beijing" would be mistakenly read as "Peking", as the pronunciation in Wade-

Giles.

- 4. The letter of "j, q, x" (/tɛ, teh, ɛ/), the unique sound of Mandarin Chinese, is another big barrier for the foreigners to pronounce. In English, the letter "q" is usually read as /k/, and "x" is usually read as /ks/. "Ji, chi, shi" and "ji, ci, si" are used in Gwoyeu Romatzyh and Taiwan Tongyong Pinyin to represent the sound of /tɛ, teh, ɛ/, which is much more similar to the IPA, and much better than Hanyu Pinyin.
- 5. The different between pronunciation as a letter in Hanyu Pinyin form and that in the phonetic system caused even much confusions, both to Chinese and foreigners. For example, A a/a/, B b/bê/, C c/cê/ As Pinyin acronyms is considered, there is no uniform principle for reading. The Letter will be read as the original Chinese pronunciation, or as English pronunciation, or as the Chinese phonetic alphabet pronunciation. However, there is commonly accepted rule to read train trips, such as "K388" (388th Express) as "kuai 388", "L4000 times" (4000th temporary train) as "Lin 4000", "G7001" (7001 High-speed railway train) read as "Gao 701 times".

IV. Conclusion

The Romanization of Chinese is the use of the Latin alphabet to write Chinese, which could be viewed as a process of acculturation, that is, by using the western letters to transliterate Chinese language, and combined the western writing letters with the traditional Chinese writing systems.

In ancient China, phonetic notation for Chinese characters is limited in "word to explain the word". It is since the late Ming Dynasty that the Western missionaries, for the first time, adopted the Latin alphabet to transliterate Chinese language. This attempt started the influence of the western alphabet on eastern language. It produced so profound impact that the Latin letters were finally accepted and put in use of Hanyu Pinyin. Though other phonetic systems have been introduced, even have been put in use for some time, none is better than Hanyu Pinyin. Before the public issue of Hanyu Pinyin, experts and the public have had a long and heated debate about which form should be taken for Hanyu Pinyin, the Latin letter or the other form. At that time, many people voted for Zhuyin Zimu which, as the first officially issued phonetic transcription, was commonly used in the Republic of China. It is the typical representative of Chinese writing traditions, for instance, the initial '7 is taken from the upper part of the word '包', and read as "b". However in order to speed up Chinese communication with the western world, the Latin-letter-based Hanyu Pinyin has been accepted which has been shown as the good and best choice.

The Latin alphabet, based on Indo-European languages, is composed by vowels and consonants, while the syllable structure of Chinese language is made up of initials, finals and tones, as same as many other minority languages. It turned out that Hanyu Pinyin has adapted the western writing letters to the traditional eastern writing system, and this combination has been proved to be a successful case of acculturation.

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