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WRITING SYSTEMS AND GUIDES TO PRONUNCIATION

ROMANIZATION

The Romanized transliteration of Thai

Paper submitted by Thailand

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THE ROMANIZED TRANSLITERATION OF THAI

1.   INTRODUCTION

Three terms which sometimes confused language users are " Trans-
literation ", Transcription, and Romanization ".   " Transliteration "
is the substitution of one alphabet by another alphabet character with
no consideration for pronunciation. It may be any pair of alphabets.
For example, to substitute Thai alphabet for Roman alphabet one must write
" มาน " for · " man ", since " m " is substituted by " ม ", " a " by
" แ ", and " n " by " น ". To substitute Roman alphabet for Thai alphabet
one must write " amn " for " man " since " แ " is substituted by " a "
" ม " by " m " and " น " by " n ".

" Transcription " is the use of symbols to show sounds or sound
sequences in written form. For instance, " แมน " is written out as
" mæn ".

" Romanization " is the use of Roman alphabet for another set
of alphabet in another language assuming that the Roman alphabet may
also represent the pronunciation of that language. For example, " แมน "
is written out as " maen ".

Thus we are now dealing with " Romanization " or Romanized
transliteration. This Romanized transliteration system is s means of

converting the Thai writing system into the Roman alphabet.

2.   BACKGROUND

The idea of the Romanized transliteration of Thai was originated in the reign of King Rama V around 1908. During that time there were problems with the identification of geographical names in the maps made in cooperation between Thailand and Great Britain, and between Thailand and France.

Both Thailand and France agreed to set up a written system using Roman alphabet to represent the pronunciation of Thai names. This system concentrated on pronunciation only, ignoring the written form. It was also assumed that the Romanized form might also be converted back to Thai lending the same pronunciation. This system, however, is understandable only to Thais who are throughly familiar with the Thai words. Thus it was not been widely used. Other systems have been adopted according to those who need Romanization. One such system which plays a major role in the present day Romanized transliteration is the system introduced by King Rama VI which is based on the Romanized transliteration of Pali and Sanskrit. The system is mainly used for royally granted surnames or family names.

3.   THE ROYAL INSTITUTE SYSTEMS

In 1931, The Ministry of Education having felt that it would be very useful if a standardized system of the Romanized transliteration of Thai could be found, set up a Committee to undertake this task.

The Committee decided that the basis of Romanized transliteration should be founded in the principles of the Thai language and that a system

of transcription should be as the words are written and pronounced in
the Thai language. If transcription was based on the form of the word
in the original language from which the Thai word is derived, one and
the same Thai character might have to be substituted by different Roman
characters, e.g.   " ฑ "   may be substituted by either   " thon ",   " s ",
" tr ", or   " thara ". On the other hand, a purely phonetic transcription
would not entirely correspond to the Thai word as it is written.

The Committee therefore examined the principles of Thai grammar
and found that the classification of words into groups with a standard
final consonant, i.e. the groups of -k, -ng, -t, -n, -p, and -m, already
laid down the principles of Thai pronunciation, namely that the final
consonant should be pronounced as the standard final consonant just indicated.

The Committee decided that the system to be adopted should
follow the said rule. The Committee has finally created two standard systems
for transcription or transliteration of Thai characters into Roman letters,
i.e. the General System and the Precise System. The General System should
correspond to the Thai word as it is read or pronounced and the Precise
System should correspond to the Thai word as it is written. The General
System is applied in case where the pronunciation is more important than
the spelling of the word while the Precise System is applied in case where
it is desired to indicate the precise spelling. Moreover, in the Precise
System there is a Roman equivalent for every Thai consonant and this system
employs diacritical marks, many of them being tonal marks. In the General
System the sound of words is indicated by Roman letters only and without
any diacritical markings.

After examining the methods of Thai pronunciation and orthography,

the Committee considered that for the General System, there need be no marks of tones as mentioned before or of quantities, i.e., there is no need to distinguish short - long vowels. It is sufficient to provide such marks only for the Precise System as already mentioned.

The report on this dual - system of transliteration was then published in 1932 to survey public opinion.

In 1934, the Royal Institute having taken over this work from the Ministry of Education, proceeded with their consideration for the system. They considered both the General and Precise Systems with the Ecole Française d'Extreme - Orient at Hanoi. The Ecole Française d'Extreme - Orient agreed in principle but commented that when regarding combined vowels, a distinction should be made between the vowels which are followed by a consonant and those which are not, so as to render the transcription still more precise. The Royal Institute further made a few modifications as shown in TABLES 1 - 4.

Both systems were approved and authorised the proclamation by the Royal Institute on March 6, 1939.

4.   PROBLEMS OF THE ROYAL INSTITUTE SYSTEMS

It can be seen that both the General and Precise Systems are not convenient to use. The Precise System is confusing to both Thais and foreigners. The General System adopts some special symbols unknown to general users.

In 1953, the Royal Thai Survey Department in cooperation with the United States of America set up a new map program using an

THE GENERAL SYSTEM OF PHONETIC TRANSCRIPTION

OF THAI CHARACTERS INTO ROMAN

VOWELS			
Thai	Roman	Thai	Roman
อะ อั อา	a	เอย	œi
อำ	am	เอือย	ǔai
อิ อี	i	อวย	uai
อี อื	ǔ	อิว	iu
อุ อู	u	เอ็ว เอว	eo
เอะ เอ็ เอ	e	แอว	æo
แอะ แอ	æ	เอียว	ieo
โอะ อ(-) โอ	o	ฤ (เสียงรี)ฤๅ	rǔ
เอาะ ออ	ǫ	ฤ (เสียงริ)	ri
เออะ เอิ เออ-เอ	œ	ฤ (เสียงเรอ	rœ
เอียะ เอีย	ia	ฦ ฦๅ	lǔ
เอือะ เอือ	ǔa		
อัวะ อัว	ua		
ใอไอ อัย ไอย อาย	ai		
เอา อาว	ao		
อุย	ui		
โอย	oi		
ออย	ǫi		

TABLE 1

GENERAL SYSTEM

CONSONANTS		.
Thai	**Roman**	
	Initial	Final
ก	k	k
ข ฃ ค ฅ ฆ	kh	k
ง	ng	ng
จ	čh	t
ฉ ช ฌ	ch	t
ญ	ẏ	n
ฎ ฏ ฑ (when pronounced d)	d	t
ฏ ฎ	t	t
ฐ ฑ ฒ ถ ท ธ	th	t
ณ น	n	n
บ	b	p
ป	p	p
ผ ภ พ	ph	.p
ฝ ฟ	f	p
ม	m	m
ย	y	-
ร	r	n
ล ฬ	l	n
ว	w	-
ซ ทร ศ ษ ส	s	t
ห ฮ	h	-

TABLE 2

THE PRECISE SYSTEM OF TRANSCRIPTION
OF THAI CHARACTERS INTO ROMAN

VOWELS			
Thai	**Roman**	**Thai**	**Roman**
อะ อ้ อา	ắh ǎ a	เอา อาว	ǎo ao
อ๋ำ	ắṃ	อุย	ui
อิ อี	i i	โอย	oi
อี อี	ǔ͜ ǔ͜	ออย	o͜i
ฤ ฦ	ǔ u	เอย	o͜ei
เอะ เอ็ เอ	ěh ě e	เอือย	u͜o͜ei
แอะ แอ	ǣh ǣ	อวย	uoi
โอะ อ(-) โอ	ǒh ǒ o	อิว	iu
เอาะ ออ	ǫh ǫ	เอ็ว เอว	ěo eo
เออะ เอิ เออ-เอ	ǿeh ǿe ǿe	แอว	ǣo
เอียะ เอีย (Final)	ǐah ia (Final)	เอียว	ieo
(Before Consonant)	ie (before consonant)	ฤ (เสียงรี)ฤา	r̥ǔ͜ r̥u͜
เอือะ เอือ (Final)	u͜ǎh u͜a (Final)	ฤ (เสียงริ)	r̥ĭ
(before consonant)	u͜oe (before consonant)	ฤ (เสียงเรอ)	r̥oe
อัวะ อัว (Final)	u͜ǎh ua (Final)	ฦ ฦา	l̥u l̥ǔ͜
(before Consonant)	uo (before consonant)		
ใอ ไอ อัย ไอย อาย	ǎǐ ǎi ǎy ǎiy ai		

TONE NOTATION FOR PRECISE SYSTEM			
Thai	**Roman**		
ก ก่ ก้ ก๊ ก๋	kǫ kǫ̌ kǫ̂ kǫ̃ kǫ́		

TABLE 3

CONSONANTS					
Thai	Roman		Thai	Roman	
	Initial	Final		Initial	Final
ก	k	k	ฆ	ṭhᶜ	t(ṭhᶜ)
ข	kh	k(kh)	น	n	n
ฃ	kh'	k(kh')	ณ	ṇ	ṇ
ค	kᶜ	k(kᶜ)	บ	b	p
ฅ	kᶜ'	k(kᶜ')	ป	p	p
ฆ	khᶜ	k(khᶜ)	ผ	ph	p(ph)
ง	ng	ng	พ	pᶜ	p(pᶜ)
จ	č	t(č)	ภ	phᶜ	p(phᶜ)
ฉ	ch	t(ch)	ฝ	f	p(f)
ช	cᶜ	t(cᶜ)	ฟ	f'	p(f')
ฌ	chᶜ	t(chᶜ)	ม	m	m
ญ	y'	n'	ย	y	-
ฎ	d	t	ร	r	n(r)
ฏ	ḍ	t(ḍ)	รร	-	n(rr)
ฐ	ḍ'	t(ḍ')	ล	l	n(l)
(when pronounced d)			ฦ	ḷ	n(ḷ)
ฑ	t	t	ว	w	-
ฒ	ṭ	t(ṭ)	ศ	ç	t(ç)
ณ	th	t(th)	ษ	ç'	t(ç')
?	ṭh	t(ṭh)	ศ	ś	t(ś)
ต	tᶜ	t(tᶜ)	ษ	ṣ	t(ṣ)
ถ	ṭᶜ	t(ṭᶜ)	ส	s	t(s)
ท	thᶜ	t(thᶜ)	ห	h	-
			ฮ	h'	-

TABLE 4

aerial photographic and photogrammetric techniques. By doing this, neither the General System nor the Precise System can be used. Thus a new system is proposed adapting from the General System. This new system was recognized in the Conference on the Standardization of Geographical Names held in Geneva in 1967. The adapted Royal Institute Systems are shown in TABLES 5 – 6.

5.   PROBLEMS OF THE ADAPTED SYSTEMS

The adapted Royal Institute Systems have been adopted for geographical names, including street and place names. The Ministry of Foreign Affairs also uses these systems for personal names in official documents, such as passports. The National Library uses them for bibliographical work.

With the widely use of computer technology, more people have to write their names and addresses in Romanized transliteration form as computer data. With more use of the adapted Royal Institute Systems more confusion is revealed.

People with Royal granted names refused to use these systems. The Romanized transliteration which looks like " English " is actually treated as English, and, unfortunately, translated back into Thai. If the translation tends to be unfavorable or " taboo " these systems will be ignored. For instance, the person named " รัตน์ " transliterates into " Rat ". One of the most influential newspapers, " ไทยรัฐ " trans-literates into   " Thai Rat " Moreover, although the adapted systems are officially endorsed the public is generally unaware of their existance due to a lack of promotion.

ADAPTED ROYAL INSTITUTE SYSTEM FOR VOWELS

VOWELS	
Thai	**Roman**
-ะ -ั -า	a
-ำ	am
-ิ -ี	i
-ึ -ื -ือ -ุ -ู	u
เ-ะ เ-็ เ-	e
แ-ะ แ-	ae
โ-ะ โ- เ-าะ -อ	o
เ-อะ เ-อ เ-ิ	oe
เ-ียะ เ-ีย	ia
เ-ือะ เ-ือ -ัวะ -ัว -ว	ua
ใ- ไ- -ัย ไ-ย -าย	ai
เ-า -าว	ao
-ุย —	ui
โ-ย -อย	oi
-ิว	iu.
เ-็ว เ-ว	eo
เ-ย	oei
เ-ือย -วย	uai
แ-ว	aeo
เ-ียว	ieo

TABLE   5

ADAPTED ROYAL INSTITUTE SYSTEM FOR CONSONANTS

CONSONANTS		
Thai	Roman	
	Initial	Final
ก	k	k
ข ค ฆ	kh	k
ง	ng	ng
จ	ch	t
ฉ ช ฌ	ch	t
ญ	y	n
ฎ ฏ ฑ (when pronounced d)	d	t
ฏ ฏ	t	t
ฐ ฑ ฒ ฑ ถ ท	th	t
น ณ	n	n
บ	b	p
ป	p	p
ผ พ ภ	ph	p
ผ ฟ	f	p
ม	m	m
ย	y	-
ร	r	n
ล ฬ	l	n
ว	w	-
ซ ทร ศ ษ ส	s	t
ห ฮ	h	-
อ	-	-

TABLE   6

All the three major English language newspapers in Thailand, the Bangkok Post, the Bangkok World, and the Nation, seem to ignore these systems and have invented their own. People in general choose whatever system they prefer or no system at all. Some scholars proposed new systems claiming that their new systems are in accordance with the Thai phonetic system or Thai common sense.

6.   IMPROVEMENTS TO THE ADAPTED ROYAL INSTITUTE SYSTEMS

The Royal Institute has always been aware of the previously listed problems. Therefor on 24 December 1985, the Thai Romanization Principles Revision Committee has been appointed. The Royal Institute justified their action by stating that :

" The Royal Institute has been aware that the need for the Romanized transliteration of Thai is increasing, not only to enable foreigners to read geographical and proper names but also for the international interchange of data by electrical devices where accuracy is prefered over pronunciation. The General System, which is oriented to pronunciation, is not convenient to use because it cannot be converted back into the original Thai. This is because one Roman character represents several Thai vowels or consonants. With reference to the Precise System, although it represents the right spelling and can be converted back to the original word, the system seems to be obsolete. The rules and symbols are not always compatible to the current linguistic rules and symbols. Moreover, the symbols used may not be compatible to those in modern keyboards. Thus the Royal Institute decided to have the Systems improved for practical use.

Another factor for the urgency of the improvement is that the International Standardization Organization (ISO) has recognized the significance of the standardization of the Romanized transliteration of Thai for international interchange of data. Thus a draft of the standardization was sent to member countries for consideration. The so - called standardization was considered by Thailand not to be compatible to the Thai writing system and not convenient to use. So Thailand, through the Royal Institute in cooperation with the Thai Industrial Standardization Institute, will undertake the task to set up the standardization of Romanized transliteration of Thai. This is planned to be two - way conversion system, which is oriented to the proper pronunciation ".

After more than a dozen brainstorm meetings during 1986 a solution was proposed by the Committee in early 1987. The Committee decided that the requirements may be devided into two separate topics : trans-literation, and transcription.

6.1   Transliteration

This Romanized transliteration is a means of converting the Thai writing system into Roman alphabet. Thus it is a two - way conversion system where pronunciation is ignored. Since there are fewer Roman characters than Thai characters, diacritical marks, punctuation marks, and a combination of two Roman characters, are needed to represent one Thai character. The aim of this system is to provide a means for international communication of written messages in a form which permits the automatic transmission or reconstitution of these by men or machines. It can be seen that transcription is suitable for human use where as transliteration

is suitable for machine use. This system is based on phonetic logic
in the selection of transliterated representations in order to lessen
the burden on those who wish to learn the system. The above - mentioned
Romanized transliteration shown in TABLE 7. This system will be submitted
to the International Standardization Organization (ISO) later this
year.

6.2   Transcription

By transcription, it is assumed that a Thai word is converted
into Roman characters representing the right pronunciation. It was decided
that since this Romanized Transcription system will be used by general
public, à la the Royal Institute General System, it should be represented
by the 26 Roman characters only. There will be no marking of tones or of
quantities of vowels, i.e. no distinction between " short " and " long "
vowels. Thus the new Royal Institute General System will be adapted using
the already adapted linguistic symbols shown in TABLES 8 - 9.
It can be seen that this new transcription solves certain ambiguities caused
by the use of the same Roman characters for more than one Thai sound.
Comparison between the two systems is shown in TABLE 10. Other
difference between the two systems can be seen the symbols representing
4 vowel sounds as shown in TABLE 11. The alphabets or characters in the
new system are based on linguistic logic. The new transcription, however,
cannot solve ambiguity caused by the quantities of vowels. For example,

ใส   =   " Sai "

สาย   =   " Sai "

ROMANIZED TRANSLITERATION

Thai	Roman	Thai	Roman
ก	k	ธ	$t̪h$
ข	k̊h	น	n
ฃ	k̥h	บ	b
ค	kh	ป	p
ฅ	k:h	ผ	p̄h
ฆ	k̥h	ฝ	f̄
ง	ng	พ	ph
จ	c	ฟ	f
ฉ	c̊h	ภ	p̥h
ช	ch	ม	m
ซ	s	ย	y
ฌ	c̥h	ร	r
ญ	y̥	ฤ	r:
ฎ	d̥	ฤๅ	r̄:
ฏ	t̥	ล	l
ฐ	t̥h	ฦ	l:
ฑ	t̠h	ฦๅ	l̄:
ฒ	t:h	ว	w
ณ	n̥	ศ	s̥̄
ด	d	ษ	s̄:
ต	t	ส	s̄
ถ	t̊h	ห	h̄
ท	th	ฬ	l̠

Thai	Roman	Thai	Roman
อ	@	ๅ	g:
ฮ	ḥ	ๆ	j:
ะ	a	ใ	q:
ั	ą	ฯ	v:
า	ā	๏	x:
ำ	a:	ใ	z:
ิ	i	๐	ð
ี	ī	・	ọ
ึ	ụ	๐	0
ื	ṳ	๑	1
ุ	u	๒	2
ู	ū	๓	3
เ	e	๔	4
แ	e:	๕	5
โ	o	๖	6
ไ	i:	๗	7
ใ	i̤	๘	8
・	g	๙	9
・	j		
・	q		
・	v		
・	x		
・	z		

TABLE   7

NEW TRANSCRIPTION FOR VOWELS

Thai	Roman	Thai	Roman
-ะ ั -า	a	เ็ว เ-ว	eu
ํา	am	แ-ว	aeu
ิ ี	i	เียว	iau
ึ ื	ué	ฤ(1st sound)ฤๅ	rue
ุ ู	u	ฤ(2nd sound)	ri
เ-ะ เ็ เ-	e	ฤ(3rd sound)	roe
แ-ะ แ-	ae	ฦ ฦๅ	lue
โ-ะ โ-	oa		
เ-าะ อ- -อ	o		
เ-อะ เ ิ เ-อ	oe		
เียะ เีย	ia		
เือะ เือ	uea		
ัวะ ัว	ua		
ใ- ไ- ัย -าย	ai		
เ-า -าว	au		
ุย	ui		
โ-ย	oai		
-อย	oi		
เ-ย	oei		
เือย	ueai		
-วย	uai		
ิว	iu		

TABLR 8

NEW TRANSCRIPTION FOR CONSONANTS

Thai	Roman	
	Initial	Final
ก	k	k
ข ฃ ค ฅ ฆ	kh	k
ง	ng	ng
จ	c	t
ฉ ช ฌ	ch	t
ญ	y	n
ฎ ฑ ฒ (when pronounced d)	d	t
ฏ ฎ	t	t
ฐ ฑ ฒ ท ธ ฒ	th	t
น ณ	n	n
บ	b	p
ป	p	p
ผ พ ภ	ph	p
ฝ ฟ	f	p
ม	m	m
ย	y	-
ร	r	n
ล ฬ	l	n
ว	w	-
ซ ทร ศ ษ ส	s	t
ห ฮ	h	

TABLE 9

COMPARISON BETWEEN THE TWO SYSTEMS

Thai	Old System	New system
จ	ch	c
ฉ ช ฌ	ch	ch
◌ึ ◌ื	u	ue
◌ิ ◌ี	u	u
โ-ะ โ-	o	oa
เ-าะ -อ	o	o
เือะ เือ	ua	uea
◌ัวะ ◌ัว	ua	ua
โ-ย	oi	oai
-อย	oi	oi
◌ือย	uai	ueai
-วย	uai	uai

TABLE 10

OTHER DIFFERENCE BETWEEN THE TWO SYSTEM

Thai	Old System	New System
เ-า	ao	au
เ◌ียว เ-ว	eo	eu
แ-ว	aeo	aeu
แ◌็ยว	ieo	iau

TABLE 11

7.   TRANSCRIPTION PROBLEMS

According to transliteration system will be applied to machines there seems to be no problem from humans, although it can be barely recognized by the human. But the problems might be arised from the transcription system.

It should be accepted that Roman characters adapted from Phonetic symbols do not exactly represent Thai pronunciation for the general users. Some characters may be confused with English pronunciation. For example,

" c " may be pronounced as " ค "   not   " จ "   as in English words : " cat ",   " come ",   " cut ", etc.,

" ph " may be pronounced as " ฟ " not   " พ "   as in English words : " phone ",   " phase ", " photo ", etc.,

" p " may be pronounced as " พ "   not   " ป " as in English words : " pan ",   " pine ",   " pen ", etc.

More problems might be arised from the representation of vowel sounds since no Roman character can exactly represent the following Thai vowels : อิ อี เอาะ ออ เออะ เออ เอือะ เอือ ออย เอย เอือย

Some Committee members suggested that a certain Thai character should be represented by Roman character that represents English pronunciation.   For example,

" จ "   may be represented by   " j "

" ป ผ พ ภ "   may be represented by   " p "

To do so may violate the regularity of linguistic logic which is adopted as the main principle. Moreover " ʊ ʔ and " ห พ ʌ " will not be differentiated.

8.   CONCLUSION

The transliteration system for machine use will be submitted to the International Standardization Organization (ISO) later this year for consideration and acceptance. This system of conversion is intended to provide complete and unambiguous reversibility. This system is also based on phonetic logic in the selection of transliterated representations in order to lessen the burden on those who wish to learn the system. The transcription system for human use has not been finally concluded yet. It will be distributed to users involved for consideration and comment. This is being done to sample public opinion as was done in 1932.

We do not know whether the users will prefer " c " or " j " for " �ๅ " or vice versa. It may take sometime to reach the final solution of the successful transcription and transliteration systems which are accurate and accepted by all involved.

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