

Title: Proposal to include Kalasha Language alphabets
Action: For consideration by UTC and ISO/IEC JTC1/SC2/WG2
Author: Rehmat Aziz Khan Chitrali
Date: 04-May-2020

Introduction:

Kalasha language is spoken in Pakistan’s Kalash Valleys, Biri, Rumbur and Bumburet Valley of Chitral, Khyber Pakhtunkhwa, Pakistan and is written in Arabic and roman scripts. Khowar Academy is a nonprofit organization working on standardizing alphabets of Kalasha and other languages spoken in the Pakistan.

There are 7 special characters in this language’s Arabic script which are currently not supported in Unicode but linguist and researcher Rehmat Aziz Chitrali (the author) of this document has invented a keyboard for Kalasha language and wrote the first ever Kalash Qaida (Primer Book) and used these characters in his books. In this proposal I want to present these 7 characters to Unicode teams for their inclusion. There is a regional language authority namely Khowar Academy working on the endangered languages of Pakistan and this academy supports these request.

Requests:

The author requests the encoding 7 new alphabets used in Kalasha language spoken in Pakistan.

Character name and shape


Shape	Name
	ARABIC LETTER ALEF WITH SMALL TAH ABOVE
	ARABIC LETTER TCHEH WITH SMALL TAH ABOVE
	ARABIC LETTER JEEM WITH SMALL TAH ABOVE
	ARABIC LETTER SHEEN WITH SMALL TAH ABOVE
	ARABIC LETTER JEH WITH SMALL TAH ABOVE
	ARABIC LETTER WAW WITH SMALL TAH ABOVE
	ARABIC LETTER YEH WITH SMALL TAH ABOVE

Figure-1

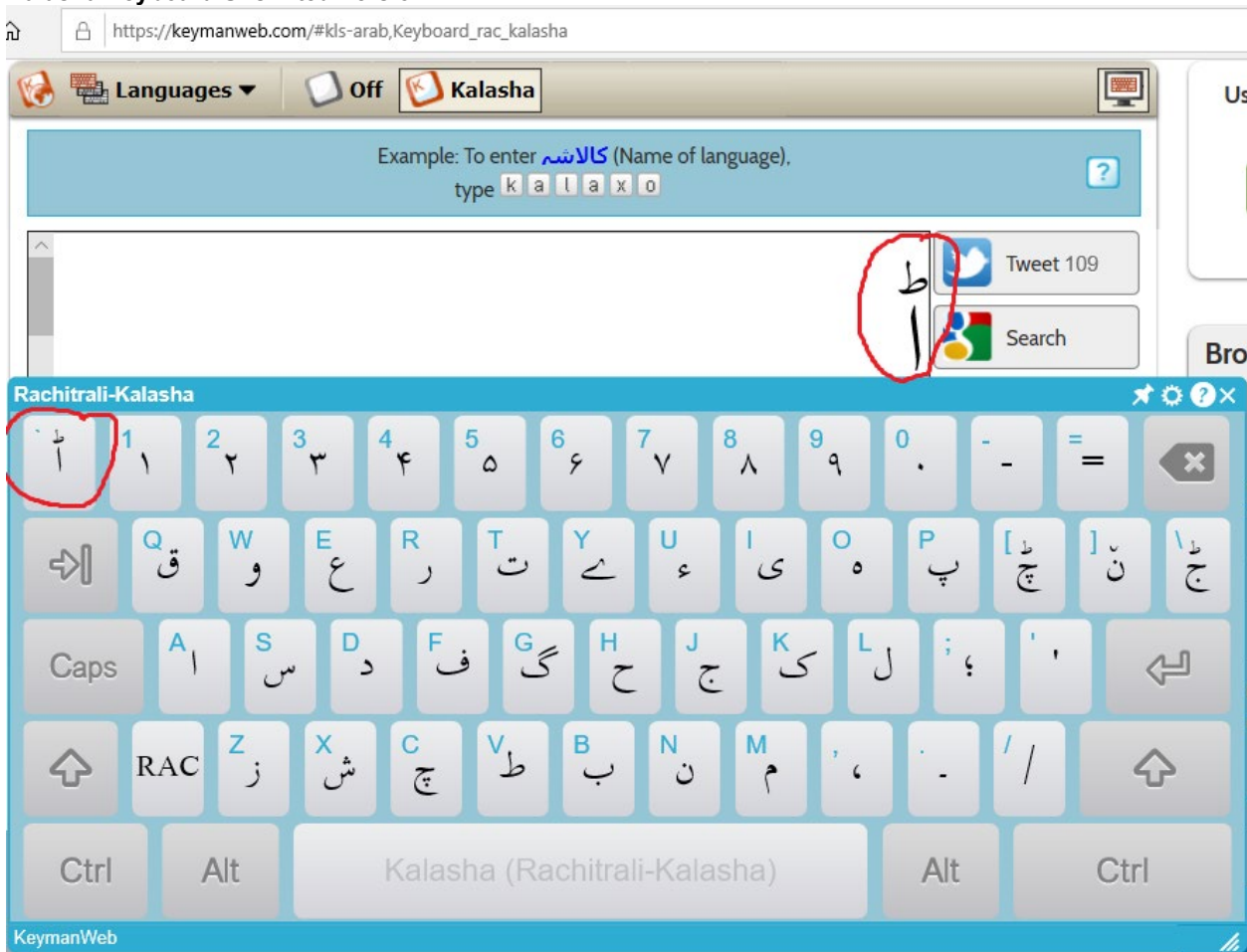
Pronunciation Guide

(Note that many Kalasha sounds have no corresponding American English sound.)

Kalasha Sound	American English Sound	Explanation
ˈ		This mark over a vowel means that a word should be accented (stressed) on that vowel.
a ā l	a	Pronounce like the “a” in “father”. If the “a” occurs in an unaccented syllable, it is pronounced like the “a” in “about”.
ã ā ā ā ā		All vowels written with a tilde above are nasalized. Part of the sound comes through the mouth, and part comes through the nose.
ə ā		All vowels written with a dot below are said with the tongue tip curled slightly back (retroflex).

Kalasha alef. Excerpt from Kalasha Dictionary by compiled by Ronald L. Trail and Gregory R. Cooper published by National institute of Pakistan Studies, Islamabad and Summer Institute of Linguistics(SIL) 1999. Please see this document here <https://www.indigenousepeople.net/Kalashdictionary.pdf>

Figure-2
Kalasha Keyboard Unshifted Version



Kalasha alef. Excerpt from first ever Kalasha language keyboard developed by compiled by Rehmat Aziz Khan Chitrali published by Keyman and Summer Institute of Linguistics(SIL) 2017 Please see the Kalasha virtual keyboard here https://keymanweb.com/#kls-arab,Keyboard_rac_kalasha

Figure – 3

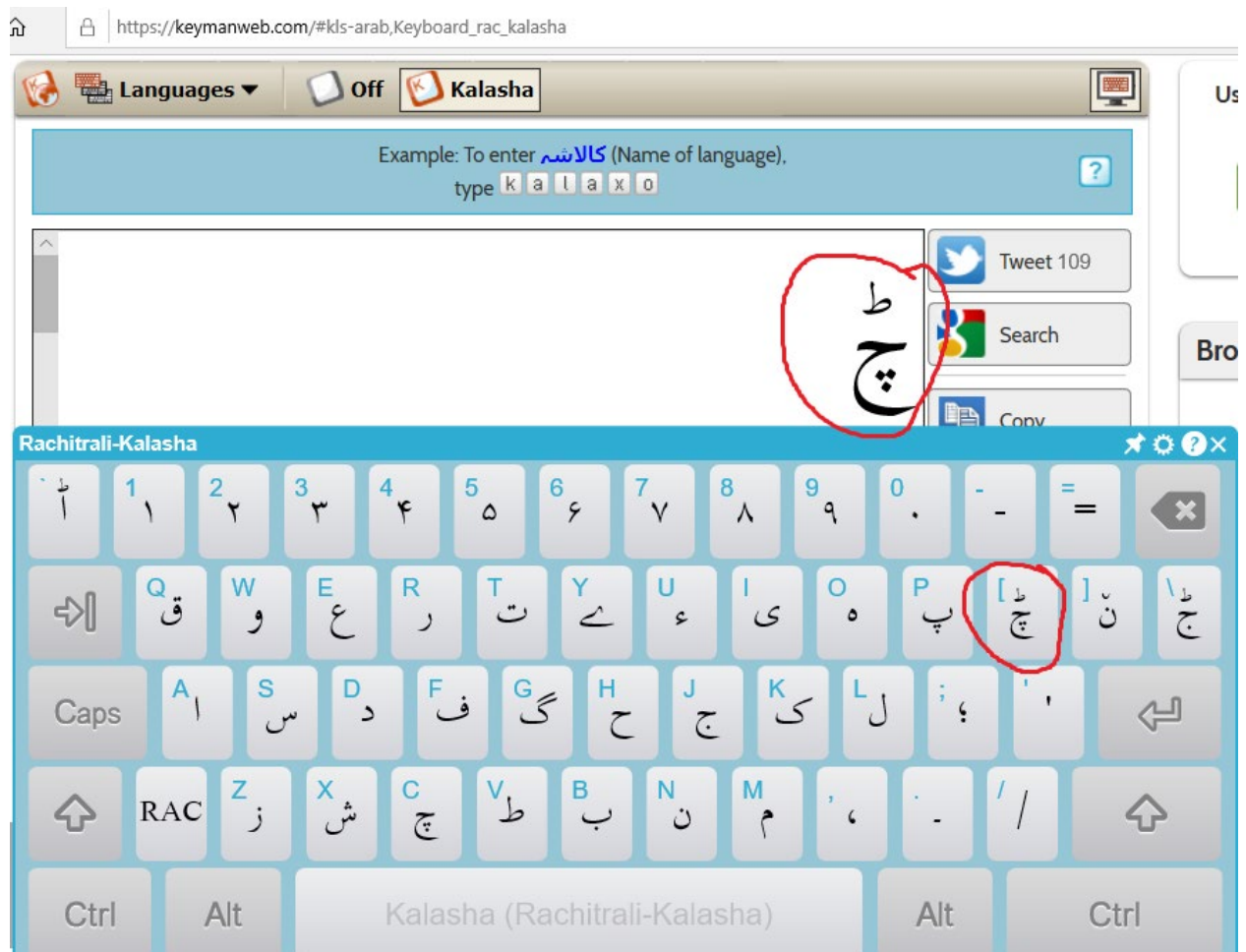
Pronunciation Guide

(Note that many Kalasha sounds have no corresponding American English sound.)

Kalasha Sound	American English Sound	Explanation
ˈ		This mark over a vowel means that a word should be accented (stressed) on that vowel.
a آ ا	a	Pronounce like the “a” in “father”. If the “a” occurs in an unaccented syllable, it is pronounced like the “a” in “about”.
ã آٚ اٚ		All vowels written with a tilde above are nasalized. Part of the sound comes through the mouth, and part comes through the nose.
ə اُ		All vowels written with a dot below are said with the tongue tip curled slightly back (retroflex).
ə̃ اُٚ		All vowels written with a tilde above and a dot below are retroflex as well as nasalized.
aw او	ow	Pronounce like the word “cow”.
ay اے	i	Pronounce like the vowel sound of “sky”.
b ب	b	Pronounce like the “b” in “bin”.
bh بہ		Pronounce like “b” but with a puff of air following.
č چ	ch	Pronounce like the “ch” in English “cheese” but without a puff of air.
č̣ چٚ		Pronounce like “č” just above, but the tongue tip touches a bit farther back in the mouth.

Kalasha chey. Excerpt from Kalasha Dictionary by compiled by Ronald L. Trail and Gregory R. Cooper published by National institute of Pakistan Studies, Islamabad and Summer Institute of Linguistics(SIL) 1999. Please see this document here <https://www.indigenouspeople.net/Kalashdictionary.pdf>

Figure - 4

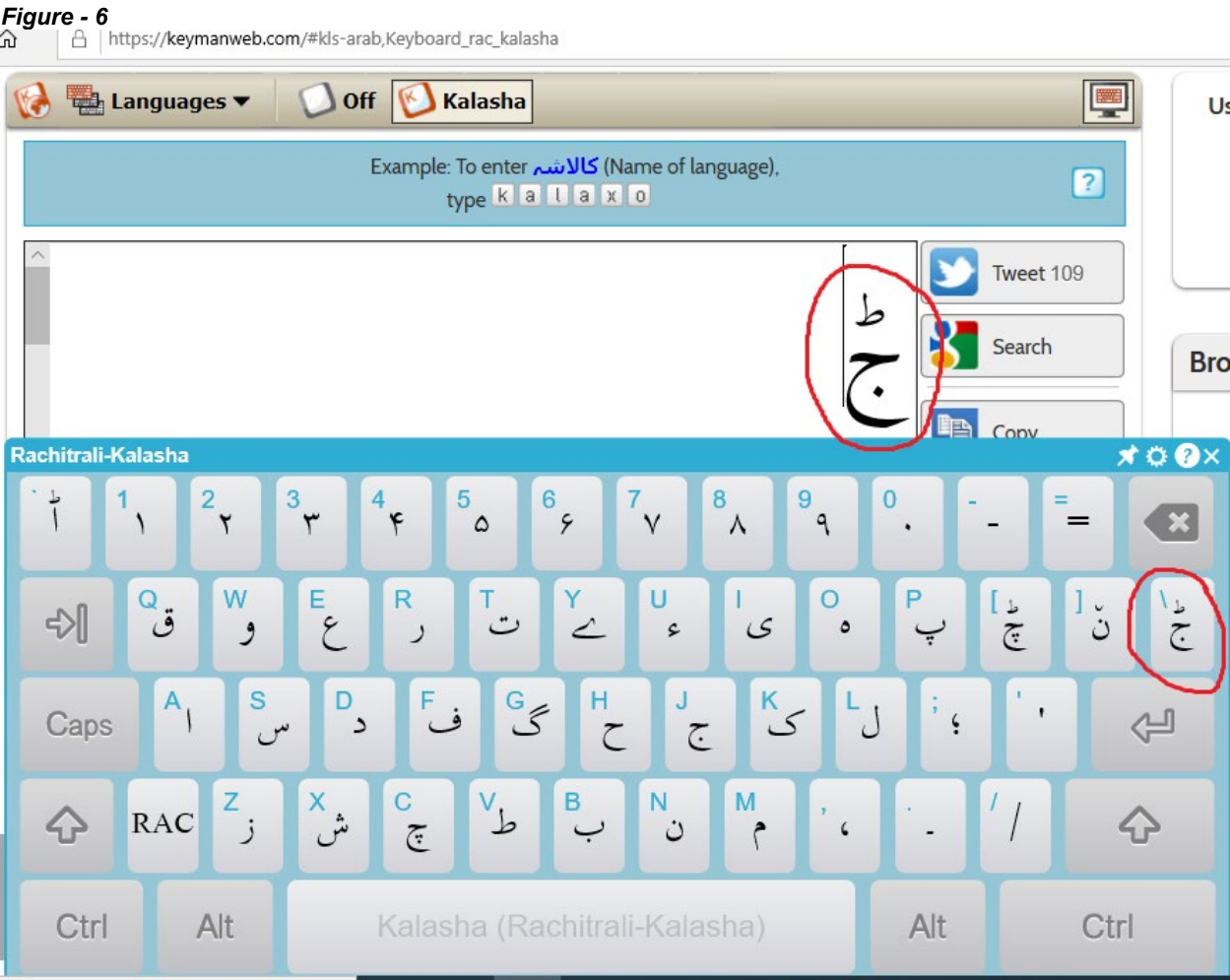


Kalasha chey. Excerpt from first ever Kalasha language keyboard developed by compiled by Rehmat Aziz Khan Chitrali published by Keyman and Summer Institute of Linguistics(SIL) 2017 Please see the Kalasha virtual keyboard here https://keymanweb.com/#kls-arab.Keyboard_rac_kalasha

Figure-5

Kalasha Sound		American English Sound	Explanation
dz	ڙ	dz	Pronounce like the final two sounds in “adds” or “adze” but put the tongue against the back of the front teeth.
e	اِ اِي اِو	e	Pronounce like the “e” in “best”.
ey	اِيو	a	Pronounce like the “ay” in “say”.
g	گ	g	Pronounce like the “g” in “girl”.
gh	گھ		Pronounce like “g” but with a puff of air following.
h	ه	h	Pronounce like English “h”.
i	اِ اِي اِو	ee	Pronounce like the “ee” in “feet.” If the “i” occurs in an unaccented syllable, it is pronounced like “i” in “fit”.
j	ج	j	Pronounce like the “j” in “judge”.
j̣	جھ		Pronounce like “j” but with the tongue tip touching a bit farther back in the mouth.
jh	جھ		Pronounce like “j” but with a puff of air.
k	ک	k	Pronounce like the “k” in “skin.” (English speakers may not recognize the difference between this sound and the next, but this one lacks a puff of air after it).
kh	کھ	k	Pronounce like the “k” in “king” (with a puff of air).
ḷ	ل	l	Pronounce like the “l” in “tool” but the tongue tip touches the back of the front teeth.
l	ل	l	Pronounced like the “l” in “leap” but is made a bit with the tongue blade (the part of the tongue just behind the tip) rather than the tip.

Kalasha jeem. Excerpt from Kalasha Dictionary by compiled by Ronald L. Trail and Gregory R. Cooper published by National institute of Pakistan Studies, Islamabad and Summer Institute of Linguistics(SIL) 1999. Please see this document here <https://www.indigenousepeople.net/Kalashdictionary.pdf>



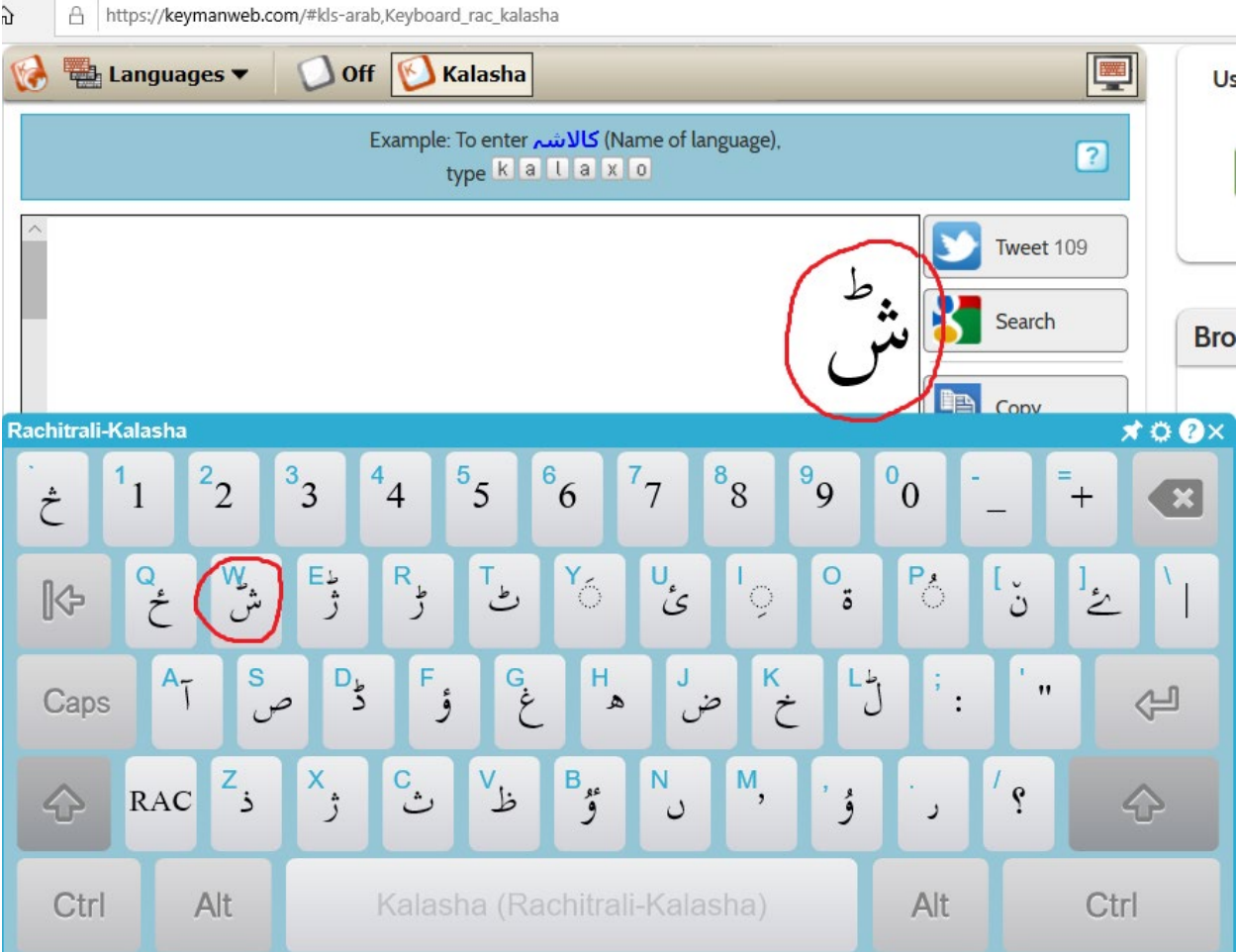
Kalasha jeem. Excerpt from first ever Kalasha language keyboard developed by compiled by Rehmat Aziz Khan Chitralli published by Keyman and Summer Institute of Linguistics(SIL) 2017 Please see the Kalasha virtual keyboard here https://keymanweb.com/#kls-arab,Keyboard_rac_kalasha

Figure – 7

Kalasha Sound		American English Sound	Explanation
s	س	s	Pronounce like the “s” of “sing”.
ṣ	ش		Pronounce like “s” but the tongue tip touches farther back in the mouth.
ʃ	ش	sh	Pronounce like “sh” in “sheep”.
t	ت	t	Pronounce like the “t” in “stare” (no puff of air), but the tongue tip touches the back of the front teeth.
ṭ	ٹ	t	Pronounce like the “t” in “stare” (no puff of air), but touch the tongue tip farther back in the mouth.
th	تھ	t	Pronounce like the “t” in “tear”, but the tongue tip touches the back of the front teeth, and there is a puff of air.
ṭh	ٹھ	t	Pronounce like the “t” in “tear”, but the tongue touches farther back in the mouth, and there is a puff of air.
ts	ٹس	ts	Pronounce like the “ts” in “Betsy”.
tsh	ٹھس		Pronounce like “ts” but with a puff of air following.
u	و	oo	Pronounce like the “oo” in “too”.
w	و	w	Pronounce like the “w” of “word”.
y	ی	y	Pronounce like the “y” of “you”.
z	ز	z	Pronounce like the “z” in “zebra”.

Kalasha sheen. Excerpt from Kalasha Dictionary by compiled by Ronald L. Trail and Gregory R. Cooper published by National Institute of Pakistan Studies, Islamabad and Summer Institute of Linguistics(SIL) 1999. Please see this document here <https://www.indigenouspeople.net/Kalashdictionary.pdf>

Figure- 8



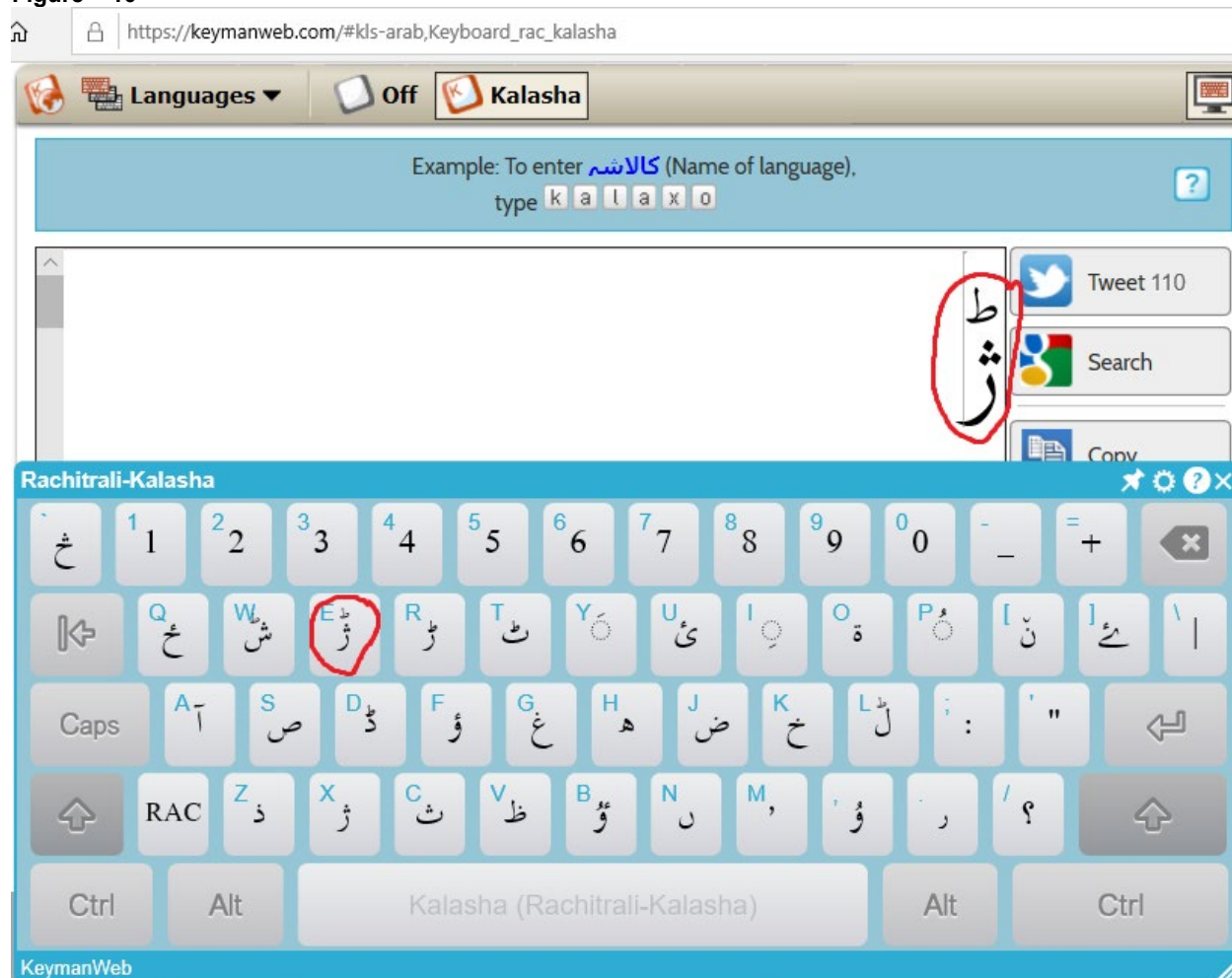
Kalasha sheen. Excerpt from first ever Kalasha language keyboard developed by compiled by Rehmat Aziz Khan Chitralli published by Keyman and Summer Institute of Linguistics(SIL) 2017 Please see the Kalasha virtual keyboard here https://keymanweb.com/#kls-arab,Keyboard_rac_kalasha

Figure – 9

Kalasha Sound	American English Sound	Explanation
s	s	Pronounce like the “s” of “sing”.
س	s	Pronounce like “s” but the tongue tip touches farther back in the mouth.
ش	sh	Pronounce like “sh” in “sheep”.
t	t	Pronounce like the “t” in “stare” (no puff of air), but the tongue tip touches the back of the front teeth.
ت	t	Pronounce like the “t” in “stare” (no puff of air), but touch the tongue tip farther back in the mouth.
th	t	Pronounce like the “t” in “tear”, but the tongue tip touches the back of the front teeth, and there is a puff of air.
ٲh	t	Pronounce like the “t” in “tear”, but the tongue touches farther back in the mouth, and there is a puff of air.
ts	ts	Pronounce like the “ts” in “Betsy”.
tsh		Pronounce like “ts” but with a puff of air following.
u	oo	Pronounce like the “oo” in “too”.
و	w	Pronounce like the “w” of “word”.
y	y	Pronounce like the “y” of “you”.
z	z	Pronounce like the “z” in “zebra”.
ز		Pronounce like “z” but the tongue tip touches farther back in the mouth.
zh	zh	Pronounce like the “z” in “azure”.

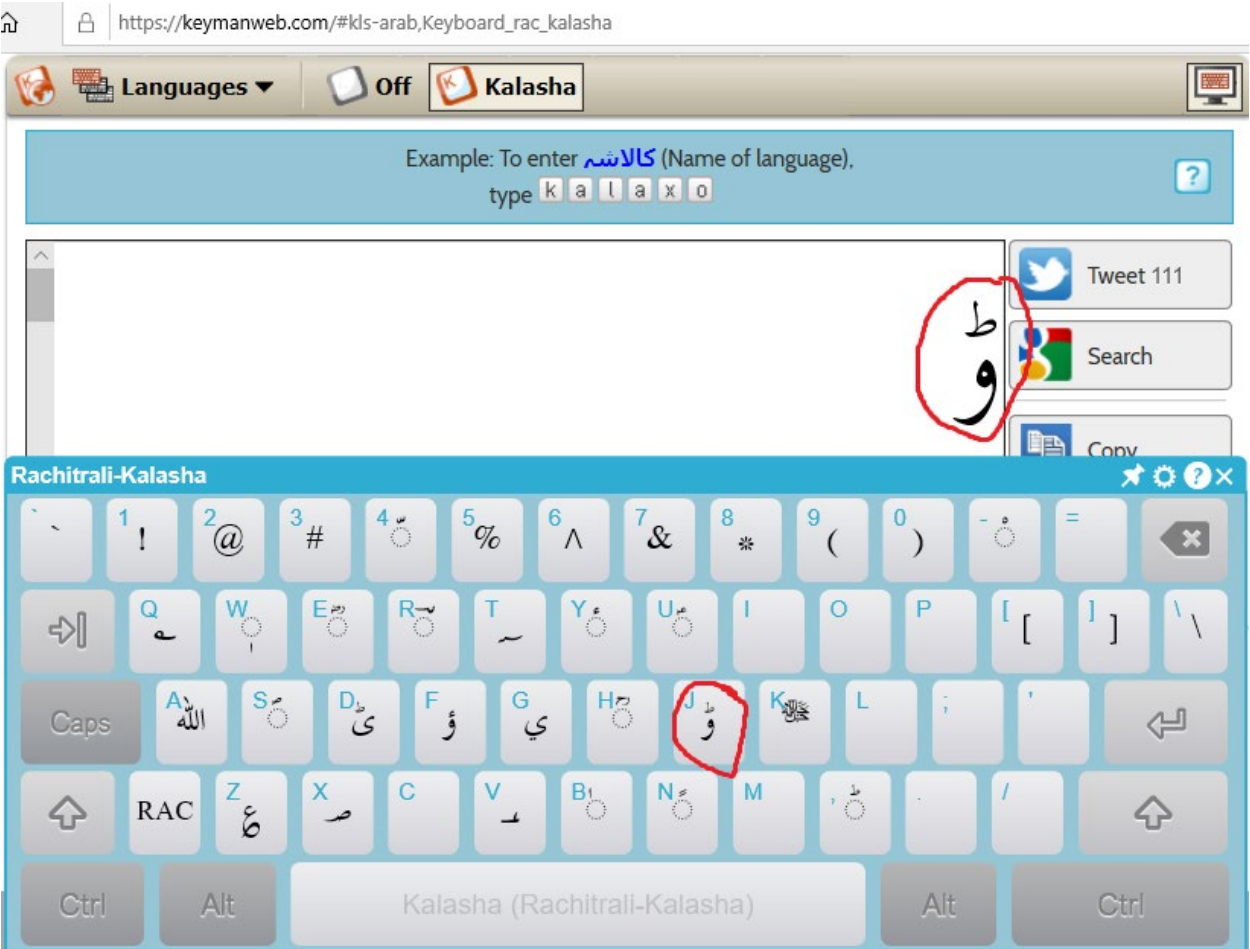
Kalasha zhey. Excerpt from Kalasha Dictionary by compiled by Ronald L. Trail and Gregory R. Cooper published by National institute of Pakistan Studies, Islamabad and Summer Institute of Linguistics(SIL) 1999. Please see this document here <https://www.indigenouspeople.net/Kalashdictionary.pdf>

Figure – 10



Kalasha zhey. Excerpt from first ever Kalasha language keyboard developed by compiled by Rehmat Aziz Khan Chitrali published by Keyman and Summer Institute of Linguistics(SIL) 2017 Please see the Kalasha virtual keyboard here <https://keymanweb.com/#kls-arab.Keyboard> rac kalasha

Figure – 11



Kalasha wav. Excerpt from first ever Kalasha language keyboard developed by compiled by Rehmat Aziz Khan Chitrili published by Keyman and Summer Institute of Linguistics(SIL) 2017 Please see the Kalasha virtual keyboard here https://keymanweb.com/#kls-arab,Keyboard_rac_kalasha

Figure – 12



Kalasha yey. Excerpt from first ever Kalasha language keyboard developed by compiled by Rehmat Aziz Khan Chitrili published by Keyman and Summer Institute of Linguistics(SIL) 2017 Please see the Kalasha virtual keyboard here https://keymanweb.com/#kls-arab,Keyboard_rac_kalasha

1. Kalasha Keyboard Software by Rehmat Aziz Chitrali published by Summer Institute of Linguistics (SIL) and Keyman

https://keymanweb.com/?#kls-arab,Keyboard_rac_kalasha

2. Kalasha Qaida (Primer Book)

Kalasha-Language-Qaida-by-Rehmat-Aziz-Chitrali-Published-byKhowar-Academy-Chitral-Pakistan

3. Kalasha Dictionary – with urdu and English *compiled by Ronald L. Trail and Gregory R. Cooper published by National institute of Pakistan Studies, Islamabad and Summer Institute of Linguistics(SIL) 1999. Please see this document here*

<https://www.indigenouspeople.net/Kalashdictionary.pdf>

ISO/IEC JTC 1/SC 2/WG 2
PROPOSAL SUMMARY FORM TO ACCOMPANY SUBMISSIONS
FOR ADDITIONS TO THE REPERTOIRE OF ISO/IEC 10646¹
Please fill all the sections A, B and C below.
Please read Principles and Procedures Document (P & P) from <http://std.dkuug.dk/JTC1/SC2/WG2/docs/principles.html> for
guidelines and details before filling this form.
Please ensure you are using the latest Form from <http://std.dkuug.dk/JTC1/SC2/WG2/docs/summaryform.html>.
See also <http://std.dkuug.dk/JTC1/SC2/WG2/docs/roadmaps.html> for latest Roadmaps.

A. Administrative

1. Title:

Proposal to include Kalasha alphabet

2. Requester's name:

Rehmat Aziz Khan Chitrali

3. Requester type (Member body/Liaison/Individual contribution):

Individual

4. Submission date:

04/05/2020

5. Requester's reference (if applicable):

6. Choose one of the following:

This is a complete proposal:

(or) More information will be provided later:

B. Technical – General

1. Choose one of the following:

a. This proposal is for a new script (set of characters):

Proposed name of script:

b. The proposal is for addition of character(s) to an existing block:

Name of the existing block:

Arabic extended-A

2. Number of characters in proposal:

7

3. Proposed category (select one from below - see section 2.2 of P&P document):

A-Contemporary

B.1-Specialized (small collection)

B.2-Specialized (large collection)

C-Major extinct

D-Attested extinct

E-Minor extinct

F-Archaic Hieroglyphic or Ideographic

G-Obscure or questionable usage symbols

4. Is a repertoire including character names provided?

yes

a. If YES, are the names in accordance with the “character naming guidelines”
in Annex L of P&P document?

yes

b. Are the character shapes attached in a legible form suitable for review?

yes

5. Fonts related:

a. Who will provide the appropriate computerized font to the Project Editor of 10646 for publishing the
standard?

Rehmat Aziz Khan Chitrali, Linguist and Researcher at Khowar Academy Chitral Pakistan

b. Identify the party granting a license for use of the font by the editors (include address, e-mail, ftp-site, etc.):

Rehmat Aziz Chitrali Email: rachitrali@gmail.com

6. References:

a. Are references (to other character sets, dictionaries, descriptive texts etc.) provided?

yes

b. Are published examples of use (such as samples from newspapers, magazines, or other sources)
of proposed characters attached?

yes

7. Special encoding issues:

Does the proposal address other aspects of character data processing (if applicable) such as input,
presentation, sorting, searching, indexing, transliteration etc. (if yes please enclose information)?

yes

See the section titled Character name and shape

8. Additional Information:

Submitters are invited to provide any additional information about Properties of the proposed Character(s) or Script
that will assist in correct understanding of and correct linguistic processing of the proposed character(s) or script.
Examples of such properties are: Casing information, Numeric information, Currency information, Display behaviour
information such as line breaks, widths etc., Combining behaviour, Spacing behaviour, Directional behaviour, Default
Collation behaviour, relevance in Mark Up contexts, Compatibility equivalence and other Unicode normalization
related information. See the Unicode standard at <http://www.unicode.org> for such information on other scripts. Also
see Unicode Character Database (<http://www.unicode.org/reports/tr44/>) and associated Unicode Technical Reports
for information needed for consideration by the Unicode Technical Committee for inclusion in the Unicode Standard.

¹ Form number: N4502-F (Original 1994-10-14; Revised 1995-01, 1995-04, 1996-04, 1996-08, 1999-03, 2001-05, 2001-09, 2003-11,
2005-01, 2005-09, 2005-10, 2007-03, 2008-05, 2009-11, 2011-03, 2012-01)

C. Technical - Justification

1. Has this proposal for addition of character(s) been submitted before?	No
If YES explain	
2. Has contact been made to members of the user community (for example: National Body, user groups of the script or characters, other experts, etc.)?	No
If YES, with whom?	
If YES, available relevant documents:	
3. Information on the user community for the proposed characters (for example: size, demographics, information technology use, or publishing use) is included?	Yes
Reference: <i>Birir, Rumbur and Bumburet, Chitral District, Khyber Pakhtunkhwa, Pakistan</i>	
4. The context of use for the proposed characters (type of use; common or rare)	Common
Reference: <i>The proposed alphabets are very common in Kalasha books, Dictionaries, Alphabet books published in Pakistan</i>	
5. Are the proposed characters in current use by the user community?	Yes
If YES, where? Reference: <i>Most of recent published Kalasha books, text editors use these characters for example please see the first ever Kalasha Keyboard Software here https://keymanweb.com/?#kls-arab.Keyboard_rac_kalasha</i>	
6. After giving due considerations to the principles in the P&P document must the proposed characters be entirely in the BMP?	Yes
If YES, is a rationale provided?	
If YES, reference: <i>Character could be kept with their counterparts in Arabic block</i>	
7. Should the proposed characters be kept together in a contiguous range (rather than being scattered)?	Yes
8. Can any of the proposed characters be considered a presentation form of an existing character or character sequence?	No
If YES, is a rationale for its inclusion provided?	
If YES, reference:	
9. Can any of the proposed characters be encoded using a composed character sequence of either existing characters or other proposed characters?	No
If YES, is a rationale for its inclusion provided?	
If YES, reference:	
10. Can any of the proposed character(s) be considered to be similar (in appearance or function) to, or could be confused with, an existing character?	No
If YES, is a rationale for its inclusion provided?	
If YES, reference:	
11. Does the proposal include use of combining characters and/or use of composite sequences?	9
If YES, is a rationale for such use provided?	
If YES, reference:	
Is a list of composite sequences and their corresponding glyph images (graphic symbols) provided?	No
If YES, reference:	
12. Does the proposal contain characters with any special properties such as control function or similar semantics?	No
If YES, describe in detail (include attachment if necessary)	
13. Does the proposal contain any Ideographic compatibility characters?	No
If YES, are the equivalent corresponding unified ideographic characters identified?	
If YES, reference:	

(Detach the following pages from the filled summary form before submitting).

Information accompanying submissions

The process of deciding which characters should be included in the repertoire of the standard by WG 2 depends on the availability of accurate and comprehensive information about any proposed additions. WG 2, at its San Francisco meeting 26, designed a form (template) that will assist the submitters in gathering and providing the relevant information, and will assist WG 2 in making more informed decisions.

This form is part of the [WG 2 Principles and Procedures document](http://std.dkuug.dk/JTC1/SC2/WG2/docs/summaryform.html) and is available on line at <http://std.dkuug.dk/JTC1/SC2/WG2/docs/summaryform.html>.

A duly completed proposal summary form must accompany each new submission. The latest version of this form must be used in submissions. Such a form will assist WG 2 to better evaluate the proposal, and progress the proposal towards a speedier acceptance and inclusion in the standard. Submitters are also requested to ensure that a proposed character does not already exist in the standard.

Submitters are encouraged to visit the "[Where is my Character](#)" page on the Unicode web site for more information on checking if their proposed character or script is already encoded in the standard, or a similar proposal has already been made by someone else. There are also several electronic discussion lists maintained by the Unicode consortium that one could use to discuss with other experts internationally on various subjects related to the standard. Submitters are also encouraged to familiarize themselves with ISO/IEC TR15285 – Character Glyph Model. The latest version of ISO/IEC 10646 as well as ISO/IEC TR15285 are available on line under 'Freely Available Standards' at: <http://standards.iso.org/ittf/PubliclyAvailableStandards/>.

National bodies should take note of the guidelines in section *C.4 Some guidelines on proposing new material as ballot comments* in the [P&P document](#).

In addition to text extracted from the standard in *Annex L: Character-naming guidelines* in the [P&P document](#), the following definitions from the standard are also referenced in the proposal summary form:

Clause 4.12 Combining character:

A member of an identified subset of the coded character set of ISO/IEC 10646 intended for combination with the preceding non-combining graphic character, or with a sequence of combining characters preceded by a non-combining character (see also 4.14).

NOTE – ISO/IEC 10646 specifies several subset collections, which include combining characters.

Clause 4.14 Composite sequence:

A sequence of graphic characters consisting of a non-combining character followed by one or more combining characters (see also 4.12).

NOTE 1 – A graphic symbol for a composite sequence generally consists of the combination of the graphic symbols of each character in the sequence.

NOTE 2 – A composite sequence is not a character and therefore is not a member of the repertoire of ISO/IEC 10646.

Submitter's responsibilities

The national body or liaison organization (or any other organization or an individual) proposing new character(s) or a new script shall provide:

1. Proposed category for the script or character(s), character name(s), and description of usage.
2. Justification for the category and name(s).
3. A representative glyph(s) image on paper:
If the proposed glyph image is similar to a glyph image of a previously encoded ISO/IEC 10646 character, then additional justification for encoding the new character shall be provided.
Note: Any proposal that suggests that one or more of such variant forms is actually a distinct character requiring separate encoding should provide detailed, printed evidence that there is actual, contrastive use of the variant form(s). It is insufficient for a proposal to claim a requirement to encode as characters in the Standard, glyphic forms which happen to occur in another character encoding that did not follow the Character-Glyph Model that guides the choice of appropriate characters for encoding in ISO/IEC 10646.
Note: WG 2 has resolved in Resolution [M38.12](#) not to add any more Arabic presentation forms to the standard and suggests users to employ appropriate input methods, rendering and font technologies to meet the user requirements.
4. Mappings to accepted sources, for example, other standards, dictionaries, accessible published materials.
5. Font resource:
A font must be provided to the Editor promptly after the characters have been approved by WG2 for use in printing the charts. If a font is not provided, the Editor cannot include the glyphs in the charts and, as a result, the repertoire of characters corresponding to these glyphs will not be included in draft amendments. Fonts must be in one of the following formats (in preferential order): OpenType, TrueType, Postscript Type 1.
Fonts submitted must have no license restrictions that prevent embedding into PDF documents. Because of synchronization between ISO/IEC 10646 and The Unicode Standard, any grant of license must cover use in publishing both standards and related documents (see resolution [M45.30](#)). For technical reasons, the editors must be able under that license to freely modify or replace glyph outlines in their copies of the fonts. The submitter should be prepared to provide fonts of suitable quality and license conditions, unless equivalent fonts are already available to the editors.
6. List of all the parties consulted:
Towards ensuring that all significant stakeholders have been consulted, WG 2 requests that submitters solicit feedback from other groups who use the proposed characters, and list these contacts. Submitters are encouraged to provide the email id-s of the submitters as well as other experts who have been consulted to facilitate any clarification queries.
7. Equivalent glyph images:
If the submission intends using composite sequences of proposed or existing combining and non-combining characters, a list consisting of each composite sequence and its corresponding glyph image shall be provided to better understand the intended use.
8. Compatibility equivalents:
If the submission includes compatibility ideographic characters, identify (per resolution [M45.29](#)):
 - the source, which contains two distinct code positions that correspond to a single unified CJK Ideograph character of ISO/IEC 10646
 - the ISO 10646 unified CJK Ideograph
 - the code position in the source for the unified CJK ideograph
 - the code position in the source for the proposed compatibility ideograph
9. Properties that may affect the BiDi processing
Any BiDirectional algorithm related properties associated with the characters should be spelled out (see UAX#9 - <http://www.unicode.org/reports/tr9/>).
10. Any additional information that will assist in correct understanding of the different characteristics and linguistic processing of the proposed character(s) or script.
11. If any of the proposed characters are suitable as *syntax* characters please take note of guideline D.2.5 (on page 24 and of Unicode Standard Annex 31 at <http://www.unicode.org/reports/tr31/>).
12. If the proposal is for a new script, identify the standardized characters that are commonly used directly in the script, or proposed to be unified with the characters of the script, in particular standardized characters allocated in different blocks. Examples include punctuation marks and combining marks. Such information will assist in assigning properties for characters shared across multiple scripts or in identifying character repertoires needed to support particular languages.
13. If you are aware of already standardized characters that are visually close to any of the proposed characters, you are invited to list them in the proposal. This will assist in the analysis of the script for 'visually confusables', towards providing additional guidance on use of the standard from a security perspective (see UTR#36 - Unicode Security Considerations – at <http://www.unicode.org/reports/tr36/>).