August 23, 2023
1:00PM EDT

DEVELOPING ALA-LC ROMANIZATION TABLES ALONGSIDE NEW TECHNOLOGIES FOR IMPROVED DISCOVERY

𞤀𞤣𞤤𞤀𞤥

EXAMPLE: ADLAM

Sponsored by:
ALA Core Committee on Cataloging: African and Asian Materials
&
ALA-LC Romanization Table Review Board

INTRODUCTION

Beacher Wiggins

Director of the Acquisitions and Bibliographic Access Directorate, Library of Congress

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JP JamraPatel

CONTENT

01 INTRODUCTION – BEACHER WIGGINS

02 CREATING THE ADLaM ROMANIZATION TABLE – CHARLES RILEY

03 REVIEW BOARD SUBCOMMITTEE: COMPOSITION AND WORK – ERIN FREAS-SMITH

04 TECHNOLOGICAL TOOLS: DEVELOPMENT AND DEMONSTRATIONS- NEIL PATEL

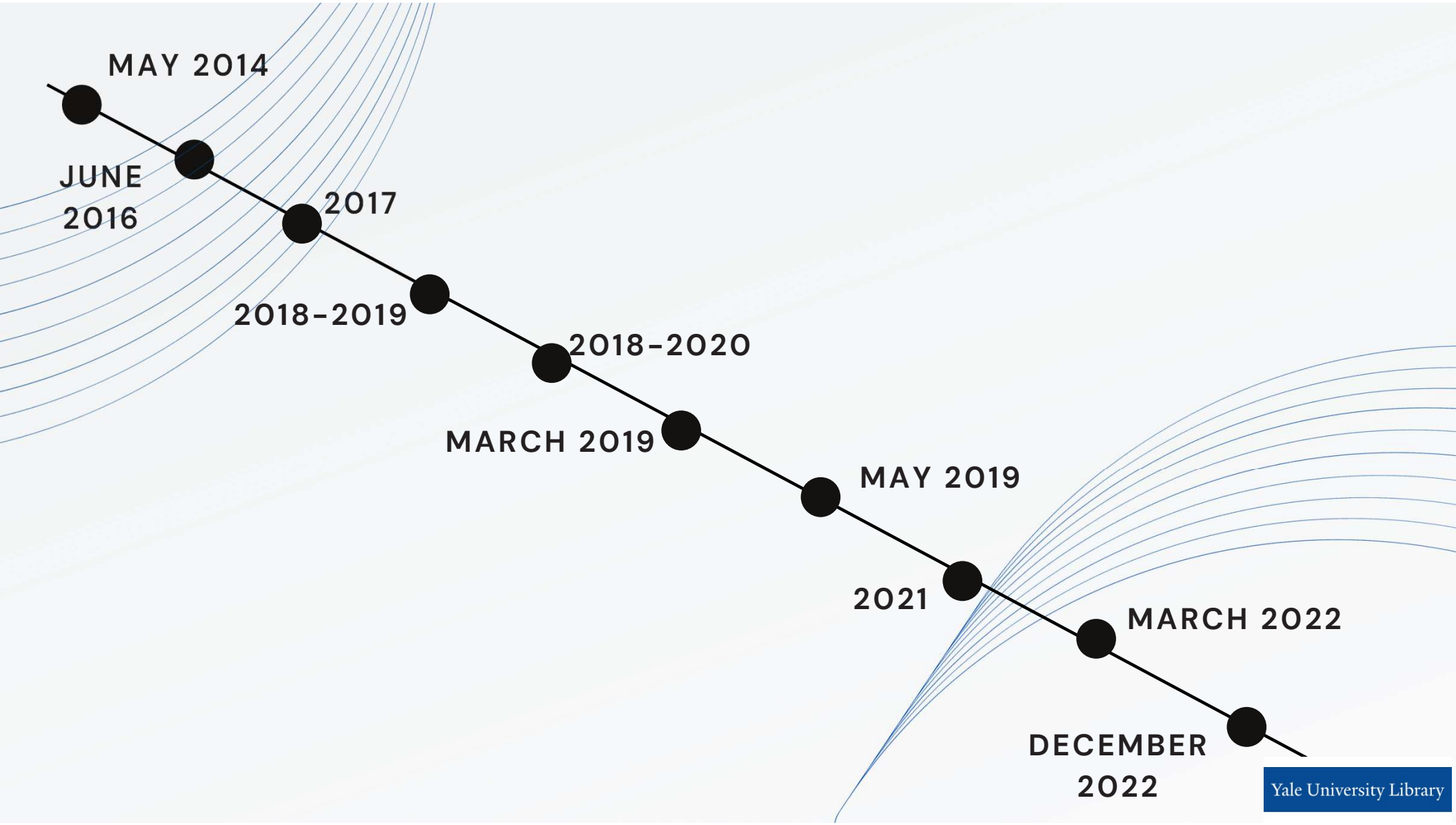
05 ROMANIZATION: NECESSITY AND OPPORTUNITIES FOR TECHNOLOGY- JESSALYN ZOOM

06 Q&A – BOUTSABA JANETVILAY

CREATING THE ADLAM ROMANIZATION TABLE

Charles L. Riley
Catalog Librarian for African Languages,
YUL Technical Services

Yale University Library


MAY 2014
JUNE 2016
2017
2018–2019
2018–2020
MARCH 2019
MAY 2019
2021
MARCH 2022
DECEMBER 2022
Yale University Library

MAY 2014

New York City workshop on ADLaM script encoding; met Abdoulaye and Ibrahima Barry, inventors of the script. First ADLaM book gifted to Yale and cataloged using provisional romanization.

Ibrahima Jogo Barry, co-inventor of the ADLaM script, and Riley, May 2014, New York City

Books+ Search Results

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Winden jangen e hāla Pular : deftere tāli e tindi Pular

Title	Winden jangen e hāla Pular : deftere tāli e tindi Pular.
Publication	Place of publication not identified : publisher not identified, [2010?]
Physical Description	56 pages ; 21 cm
Notes	In Fula language, Adlam script.
Format	Books
Language	Fula
Added to Catalog	May 13, 2014
Subjects	Fula language > Texts.
Genre/Form	Tales, Fula - Guinea.
Bookmark As	https://search.library.yale.edu/catalog/11967118
Citation	Cite

Available from:

Library Shelving Facility (LSF)
PL8184 .W56 2010
Request for pickup
Request scan of article / chapter
Send to home address
✔ Available

Notes: Gift of Ibrahima Barry

More info at Google books

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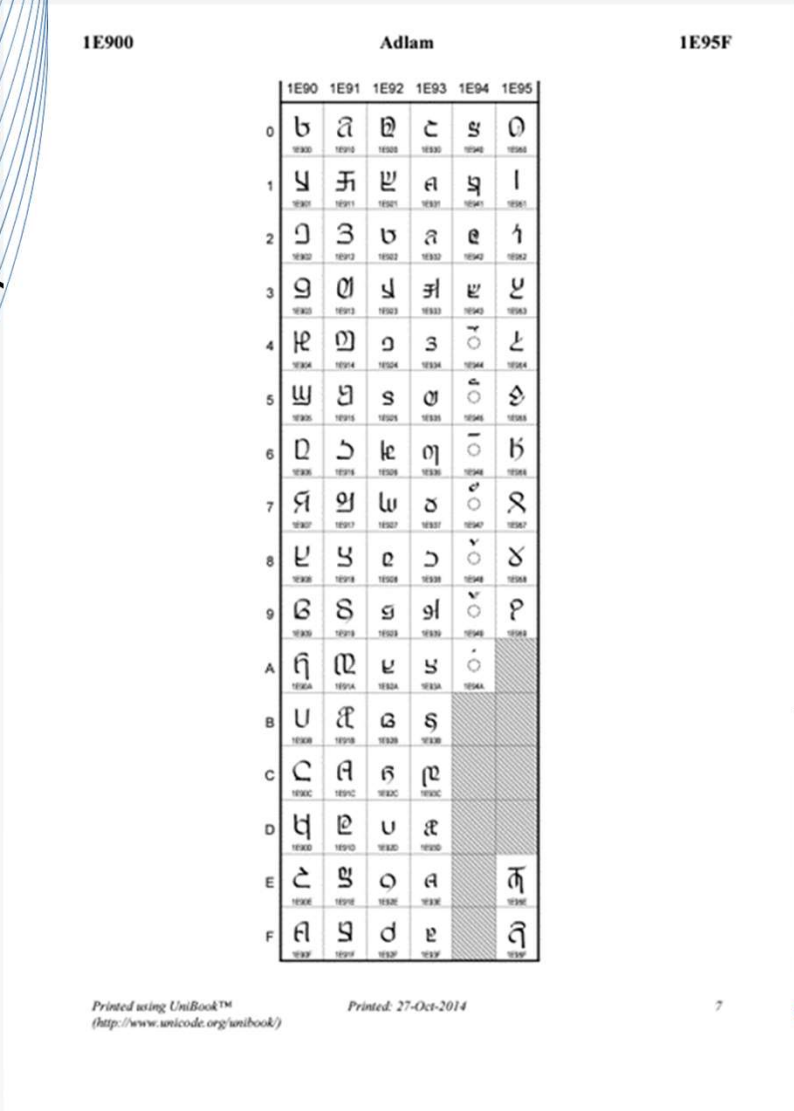
JUNE
2016



1E900 Adlam 1E95F

	1E90	1E91	1E92	1E93	1E94	1E95
0	𞤀	𞤐	𞤠	𞤪	𞥄	𞥐
1	𞤁	𞤑	𞤡	𞤫	𞥅	𞥑
2	𞤂	𞤒	𞤢	𞤬	𞥆	𞥒
3	𞤃	𞤓	𞤣	𞤭	𞥇	𞥓
4	𞤄	𞤔	𞤤	𞤮	◌𞥈	𞥔
5	𞤅	𞤕	𞤥	𞤯	◌𞥉	𞥕
6	𞤆	𞤖	𞤦	𞤰	◌𞥊	𞥖
7	𞤇	𞤗	𞤧	𞤱	◌𞥋	𞥗
8	𞤈	𞤘	𞤨	𞤲	◌𞥌	𞥘
9	𞤉	𞤙	𞤩	𞤳	◌𞥍	𞥙
A	𞤊	𞤚	𞤪	𞤴	◌𞥎	
B	𞤋	𞤛	𞤫	𞤵		
C	𞤌	𞤜	𞤬	𞤶		
D	𞤍	𞤝	𞤭	𞤷		
E	𞤎	𞤞	𞤮	𞤸		𞥚
F	𞤏	𞤟	𞤯	𞤹		𞥛

Printed using UniBook™ (http://www.unicode.org/unibook/) *Printed: 27-Oct-2014* 7

ADLaM script included as part of the Unicode standard, version 9.0 From: https://unicode.org/L2/L2014/14219r-n4628-adlam.pdf

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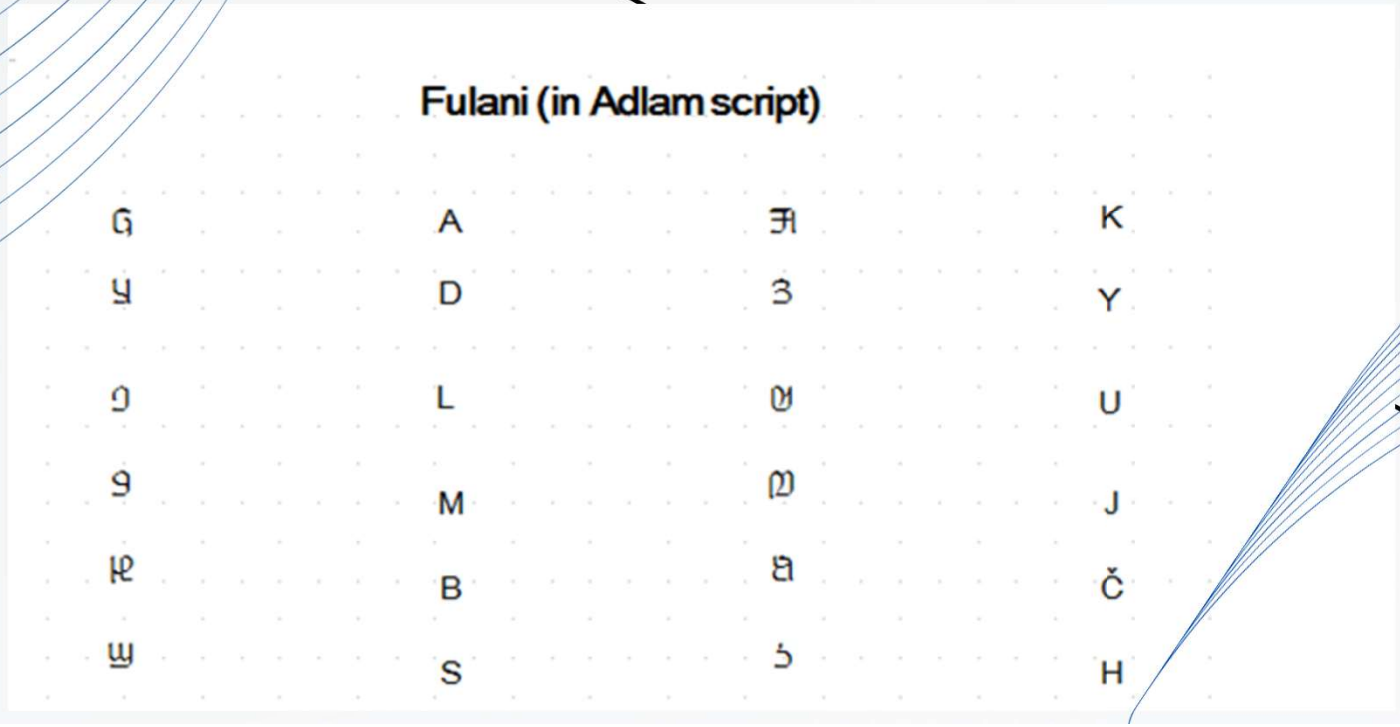
2017

First work toward an ADLaM romanization table is started, with support of the Africana Librarians Council Cataloging Committee.



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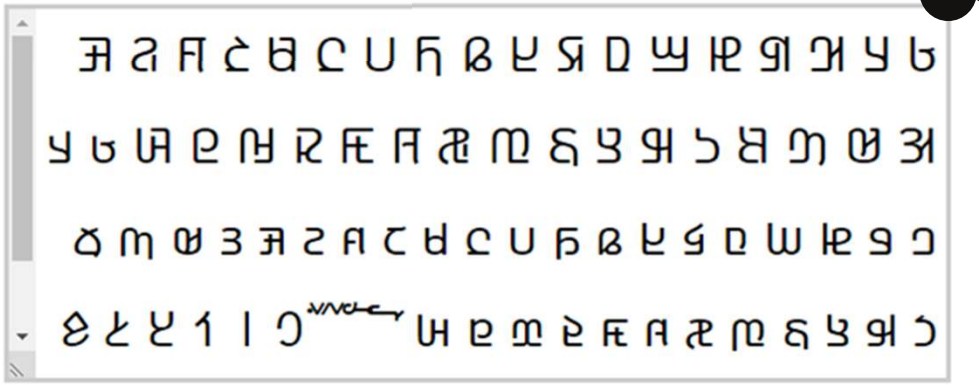
Fonts, keyboard implementations, and transliteration tools start to become available for ADLaM, easing production of further iterations of the table.

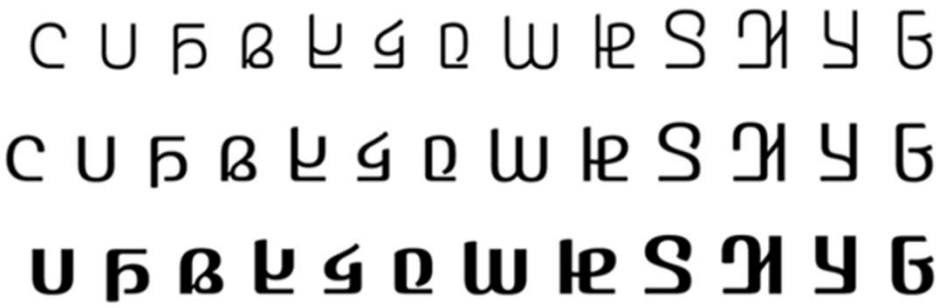
2018–2019

Adlam script testing



From: http://adlamtesting.appspot.com/

Kigelia Adlam

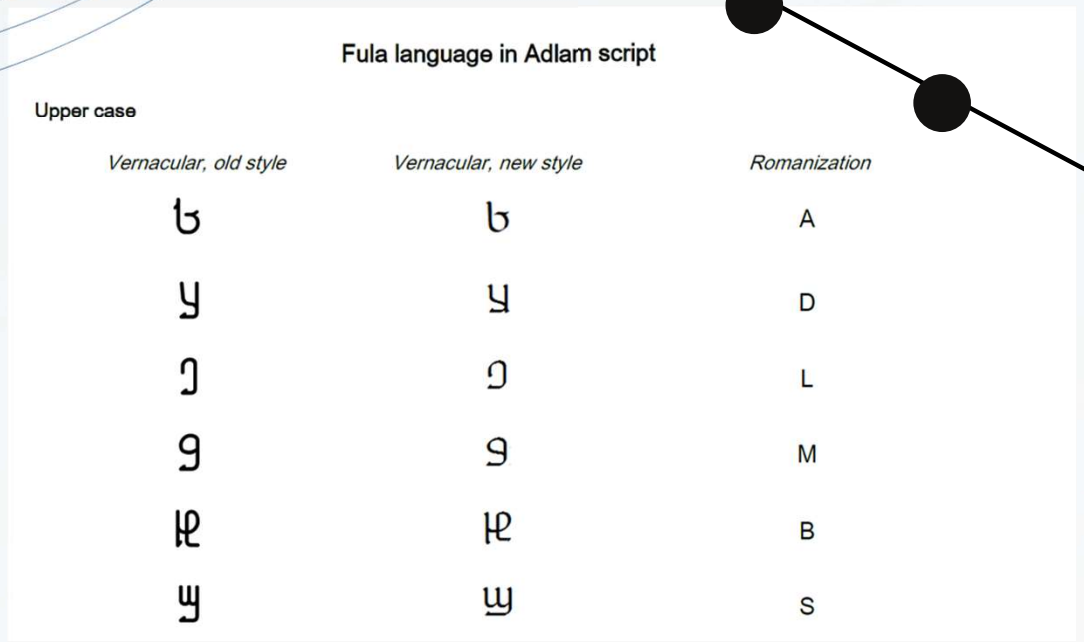


The Adlam alphabet was invented in Guinea in the 1980s by Abdoulaye Barry and Ibrahima Barry for the Pular (Fulfulde) language spoken by the Fulani people of West Africa. Adlam reads right-to-left and has upper- and lowercase letters in two variants: connected and unconnected. The designers received feedback from Abdoulaye and Ibrahima Barry throughout the design of this complement.

From: https://learn.microsoft.com/en-us/typography/font-list/kigelia

ADLaM romanization table draft includes a column for the older-style glyphs.

2018-2020



Fula language in Adlam script

Upper case

Vernacular, old style	*Vernacular, new style*	*Romanization*
𞤀	𞤀	A
𞤄	𞤄	D
𞤋	𞤋	L
𞤍	𞤍	M
𞤆	𞤆	B
𞤔	𞤔	S

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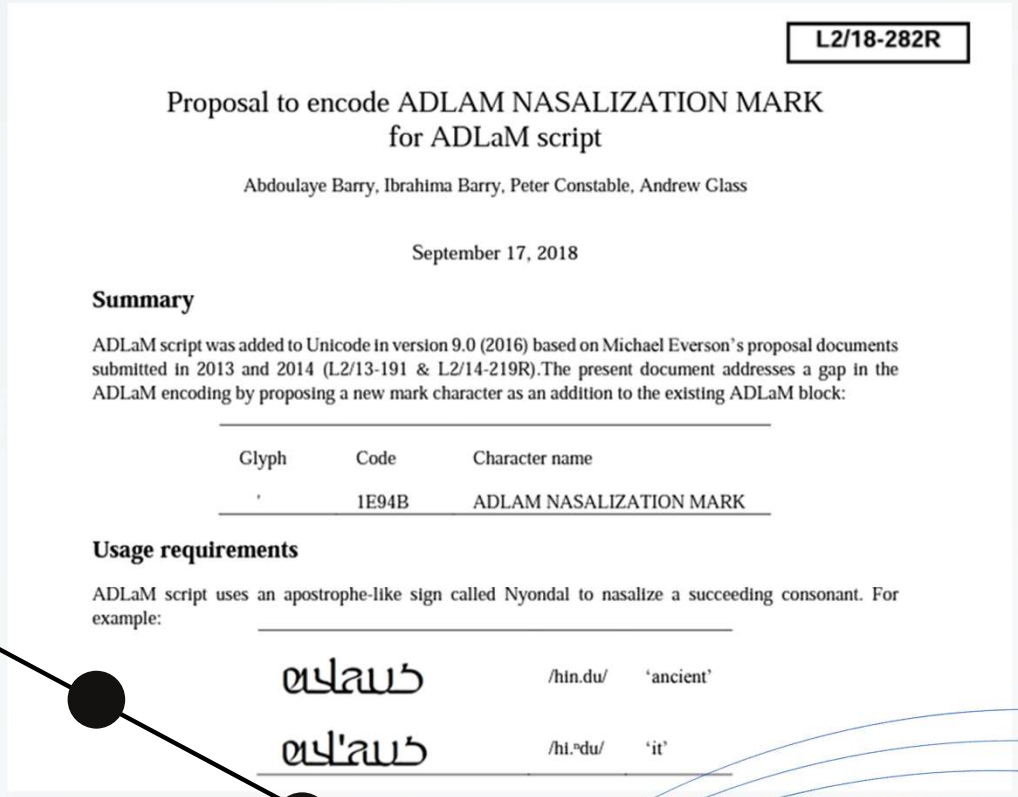

L2/18-282R

Proposal to encode ADLAM NASALIZATION MARK
for ADLaM script

Abdoulaye Barry, Ibrahima Barry, Peter Constable, Andrew Glass

September 17, 2018

Summary

ADLaM script was added to Unicode in version 9.0 (2016) based on Michael Everson's proposal documents submitted in 2013 and 2014 (L2/13-191 & L2/14-219R).The present document addresses a gap in the ADLaM encoding by proposing a new mark character as an addition to the existing ADLaM block:

Glyph	Code	Character name
'	1E94B	ADLAM NASALIZATION MARK

Usage requirements

ADLaM script uses an apostrophe-like sign called Nyondal to nasalize a succeeding consonant. For example:

𞤲𞤭𞤴𞤥𞤰	/hin.du/	'ancient'
𞤲𞤭𞤴𞤥'𞤰	/hi.ⁿdu/	'it'

MARCH 2019

ADLaM nasalization mark (U+1E94B) added in version 12 of the Unicode Standard.

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MAY 2019

About 25 ADLaM titles spread across seven US institutions: Indiana, Harvard, Columbia, Northwestern, Yale, UCLA, and Michigan State.

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Nukta (placed above the character when there is no other diacritic above; as a *hoortoƀƀere*, but below the character when a lengthener or gemination mark is above, as a *lestoƀƀere*; examples with capital S, E, O, and J)

Additional consonants using the *nukta*

Nukta (placed above the character when there is no other diacritic above, but below the character when a lengthener or gemination mark is above; examples with capital Ш, Ƃ, Ƈ and Ɲ)

Received feedback from Artem Davydov, Maria Kosogorova, and Robert Rendall, mostly on diacritics and table structure, and Diacritics section modified, part 3

2021

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Fula language in Adlam script

Upper case letters Vernacular, new style Romanization		Lower case letters Vernacular, new style Romanization	
𞤀	A	𞤢	a
𞤃	D	𞤣	d
𞤋	L	𞤥	l
𞤍	M	𞤧	m
𞤈	B	𞤨	b
𞤔	S	𞤪	s
𞤐	P	𞤬	p
𞤖	ƁB or BH	𞤮	ɓ or bh

Romanization Table Review Board accepted proposal for review of the table. A group formed and has been meeting ever since. Received feedback from Thierno Diallo, Aysha Sow, and Robert Rendall, largely on character values.

MARCH 2022

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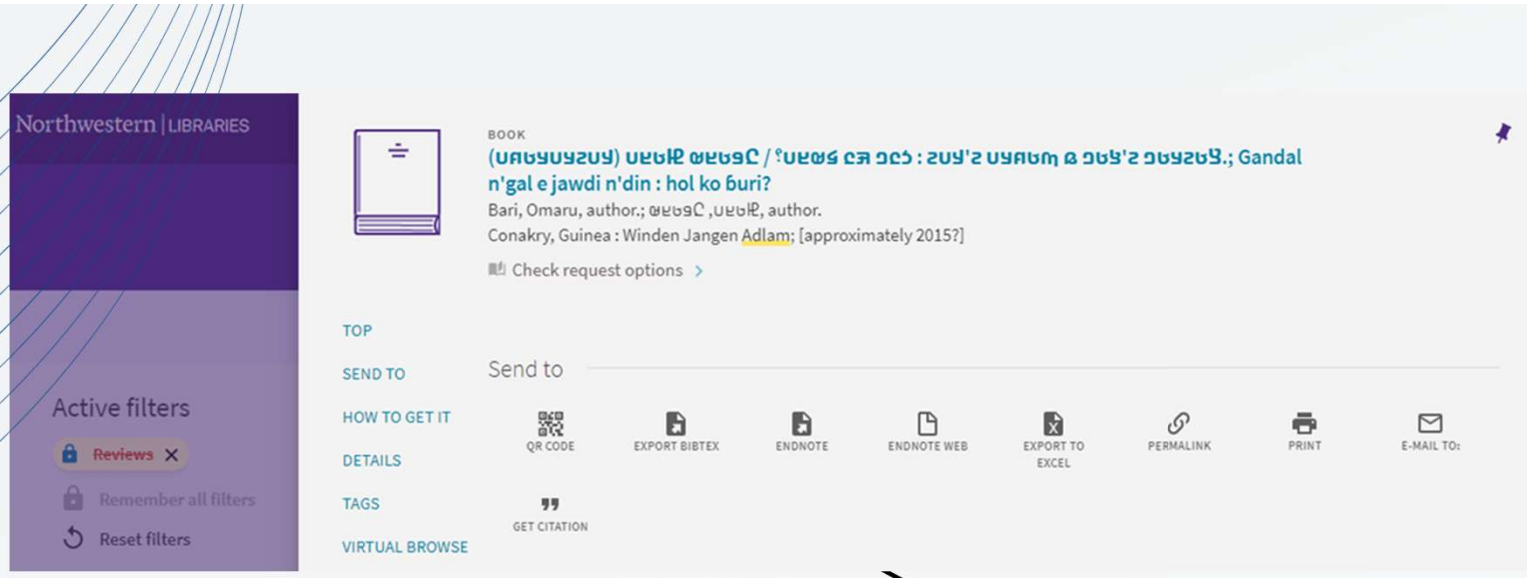

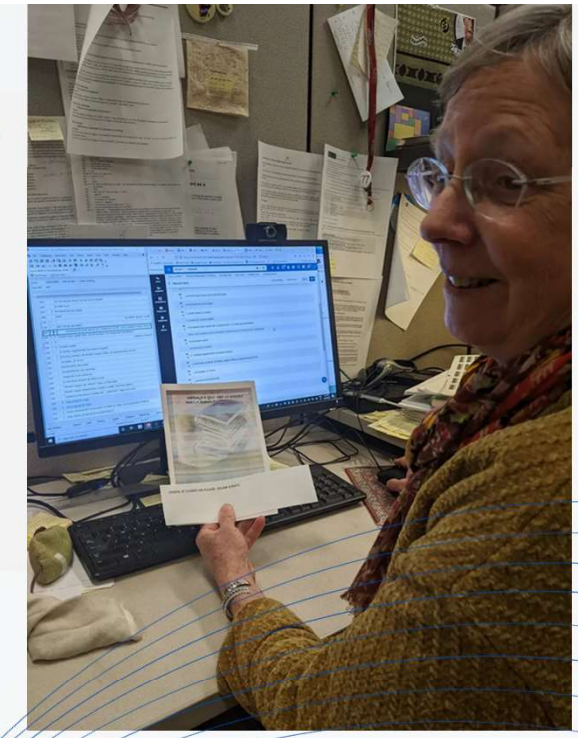

First ADLaM script record created in production by Marcia Tiede at Northwestern University using Alma and a recent draft of the romanization table.

From:
https://search.library.northwestern.edu/permalink/01NWU_INST/h04e76/alma9982095697402441

DECEMBER 2022

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REVIEW BOARD SUBCOMMITTEE

charge and process

Erin Freas-Smith

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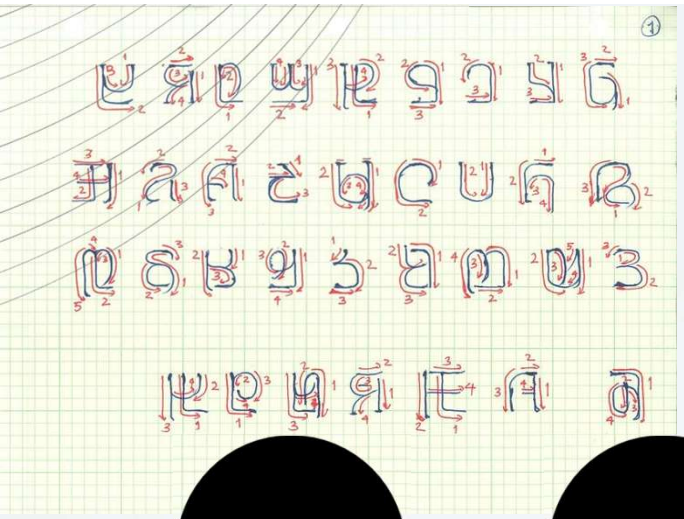

1990

SCRIPT CREATED

Developed over 6 months, the 2 brothers (aged 10 and 14) took turns drawing letters and assigning sounds.

1999

CLASSES

Breakthrough with a radio interview in Conakry, Guinea in 1993; knowledge and usage of ADLaM spreads; creation of student groups (Winden Jangen)

2014

UNICODE

Recognizing the need for technology, the brothers developed the first ADLaM keyboard and font (2008), culminating in Unicode 9.0 inclusion

2019

ADOPTION

Spreading through 10 countries in W. Africa; taught in educational courses; grammar book; Fulani dictionary; Independent apps for smartphones

2023

TECHNOLOGY

Recognizing small adoption by Big Tech, independent tools, small publishing houses, and the approval of the Romanization Table ensure growth supported by a community of users

SUBCOMMITTEE MEMBERS

Erin Freas-Smith
Chair, Subcommittee

Jessalyn Zoom
Member, Review Board

Edward Miner
Member, Subcommittee

Neil Patel
Consultant, JamraPatel

Charles Riley
Table Creator

Abdoulaye Barry
Script Co-Creator

Ibrahima Barry
Script Co-Creator

PROCESS

The charge of the subcommittee from the ALA-LC Romanization Table Review Board was in response to the creation of an ADLaM Romanization Table by Charles Riley, a senior cataloger of African languages and materials at Yale University, as well as an uptick in the volume of materials published utilizing the ADLaM script.

SUBCOMMITTEE RECEIVED CHARGE FROM REVIEW BOARD; CONVENED AND OUTLINED PROCESS; CONSIDERED EXISTING TABLE

JULY-AUGUST 2022

TABLE POSTED TO VARIOUS SITES AND SENT DIRECTLY TO INDIVIDUAL STAKEHOLDERS OUTSIDE COMMENTS RECEIVED AND INCORPORATED

AUGUST-OCTOBER 2022

OUTSIDE COMMENTS INCORPORATED; UNICODE POINTS ADDED TO TABLE; TRANSLITERATION TOOL REFINED AND TESTED

OCTOBER-DECEMBER 2022

ENHANCED TESTING PHASE FOR TECHNOLOGICAL INTEGREATION: UNICODE, MARC, AND MARVA

DECEMBER 2022-FEBRUARY 2023

FINAL TESTING; REPORT DRAFTED AND SENT TO REVIEW BOARD FOR FINAL APPROVAL; UNANIMOUS APPROVAL

FEBRUARY-APRIL 2023

TECHNOLOGICAL TOOLS: DEVELOPMENT AND DEMONSTRATIONS

Neil Patel

JamraPatel

FULA LATIN ORTHOGRAPHIES

Known Latin orthographies for Fula vary and don't have a standard approach for transcribing loan words.

Senegal	a	b	ɓ	c	d		e	f	g			h	i	j	k	l	m	mb		n	nd	nj		ŋ		ŋg	ñ	o	p	q	r	s	t	u	w	y	ƴ	'
Guinea	a	b	ɓ	c	d		e	f	g		ɠ	h	i	j	k	l	m		nb	n	nd	nj		ŋ				o	p		r	s	t	u	w	y	ƴ	'
Burkina Faso	a	b	ɓ	c	d	ɗ	e	f	g	ng		h	i	j	k	l	m			n	nd		ny	ŋ				o	p		r	s	t	u	w	y	ƴ	'
Cameroon	a	b	ɓ	c	d	ɗ	e	f	g			h	i	j	k	l	m			n			ny	ŋ				o	p		r	s	t	u	w	y	ƴ	'
Niger	a	b	ɓ	c	d	ɗ	e	f	g			h	i	j	k	l	m	mb		n	nd	nj	ny	ŋ	ng			o	p		r	s	t	u	w	y	ƴ	'

Historical Guinean Ortho:
bh = ɓ nh = ŋ
dh = ɗ yh = ƴ
q = ɠ ty = c
ny = ɲ/gn dy = j

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ADLAM ROMANIZATION

- The Romanization table is agnostic to region and dialect.
- Digraph usage is limited to loan sounds and pre-nasalization.

Romanization	a	d	l	m	b	s	p	ɓ	r	e	f	l	o	ɗ	y'	w	n	k	y	u	j	c	h	q	ñ	t	ŋ

𞤘	V	𞥞	v
U+1E91C		U+1E93E	
𞤙	KH	𞥟	kh
U+1E91D		U+1E93F	
𞤚	GB	𞥠	gb
U+1E91E		U+1E940	
𞤛	Z	𞥡	z
U+1E91F		U+1E941	
𞤜	KP	𞥢	kp
U+1E920		U+1E942	
𞤝	SH	𞥣	sh
U+1E921		U+1E943	

Adlam, new style	*Romanization*	*Adlam, new style*	*Romanization*
𞤦'𞤢	ND	𞤦𞤲	nnd
U+1E910, U+1E94B, U+1E901		U+1E932, U+1E923	
𞤦'𞤲	nd	𞤵𞤳	mmb
U+1E932, U+1E94B, U+1E923		U+1E932, U+1E926	
𞤮'𞤢	MB	𞤻𞤲	nnj
U+1E910, U+1E94B, U+1E904		U+1E932, U+1E936	
𞤵'𞤲	mb	𞤦𞤲	nng
U+1E932, U+1E94B, U+1E926		U+1E932, U+1E93A	
𞤻'𞤢	NJ		
U+1E910, U+1E94B, U+1E914			
𞤻'𞤲	nj		
U+1E932, U+1E94B, U+1E936			
𞤦'𞤢	NG		
U+1E910, U+1E94B, U+1E918			
𞤦'𞤲	ng		
U+1E932, U+1E94B, U+1E93A			

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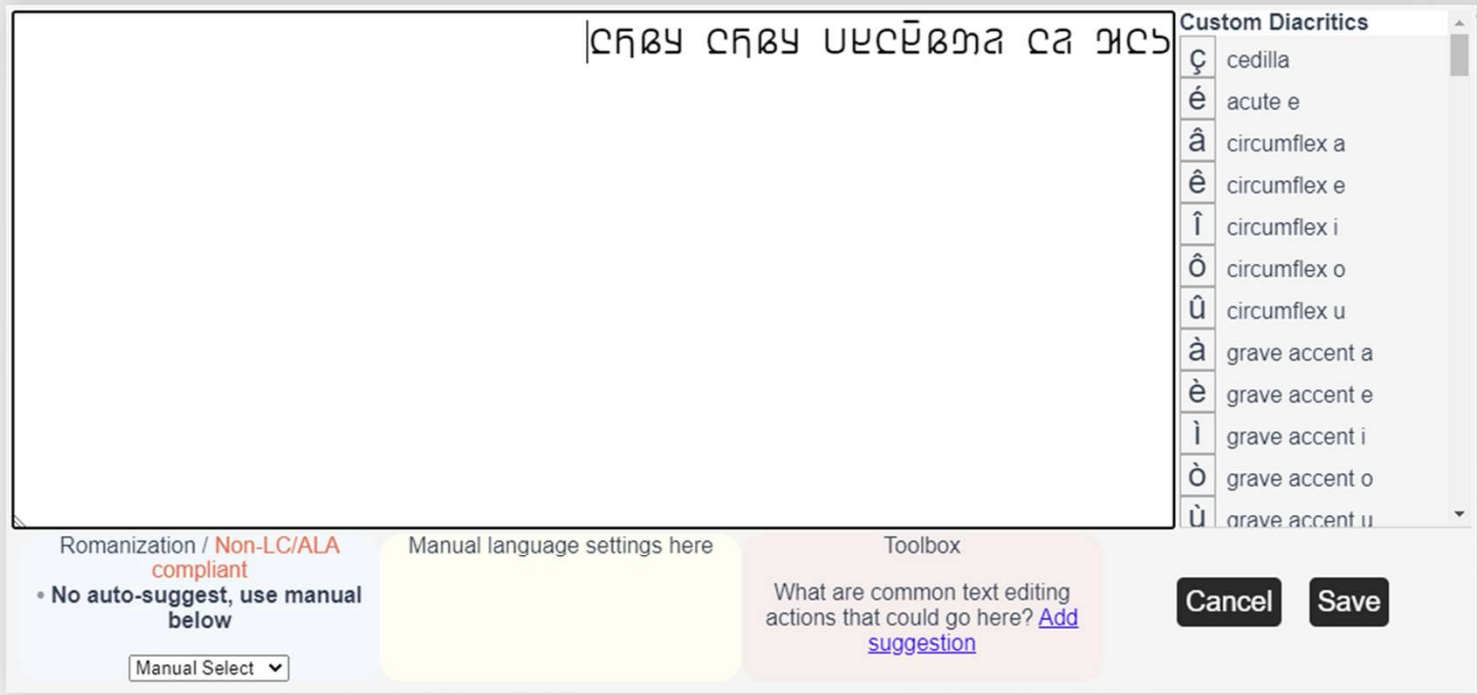
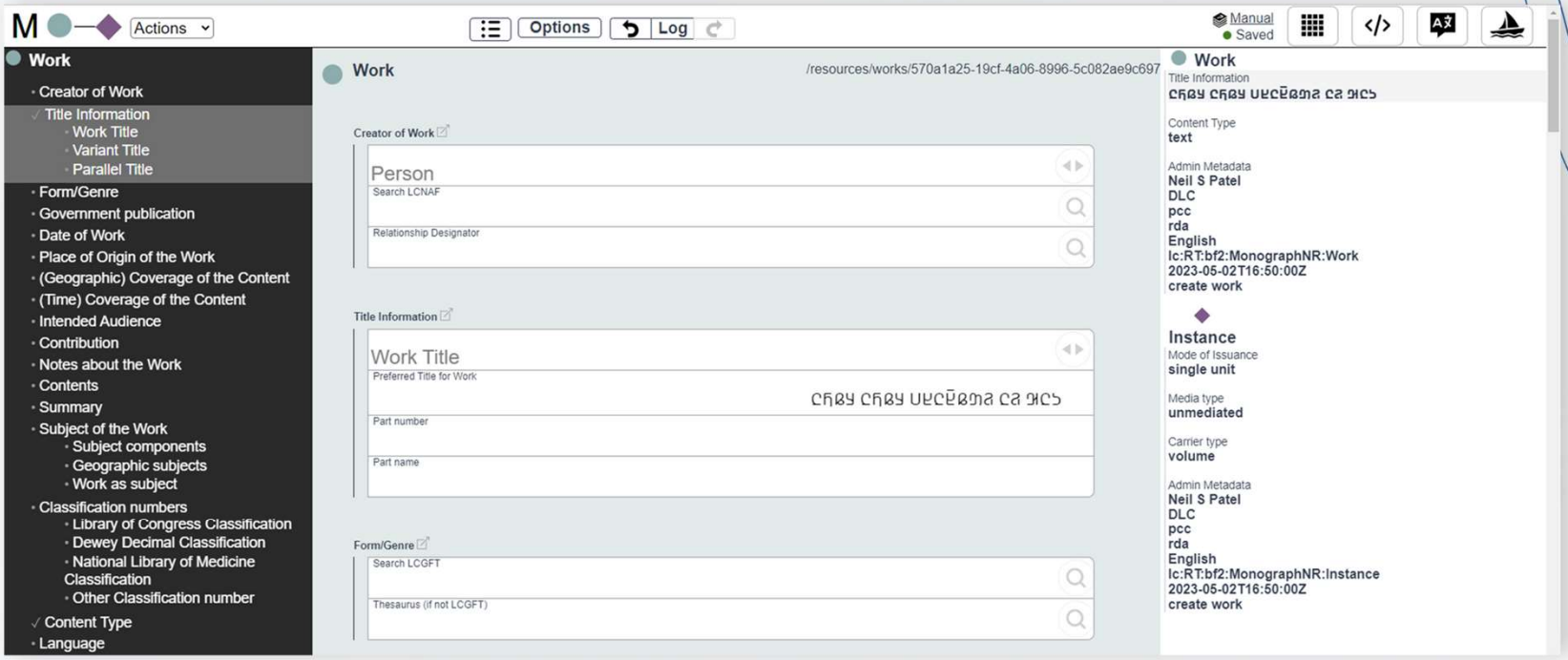
BIBFRAME TESTING

Validate that BIBFRAME can handle Adlam text



BIBFRAME TESTING

Validate that BIBFRAME can handle Adlam text



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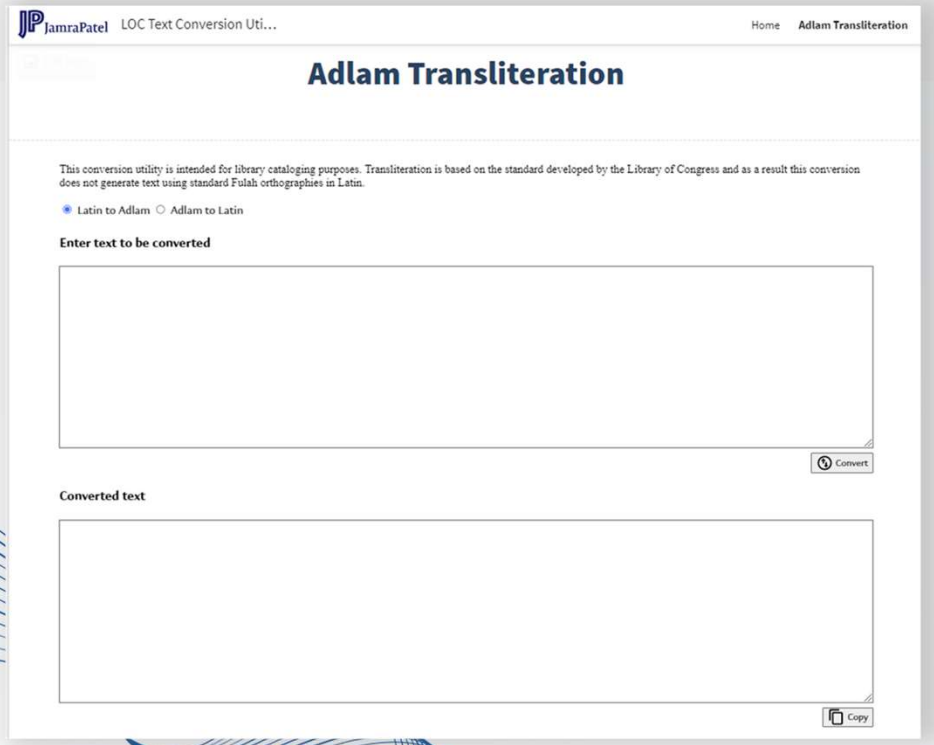
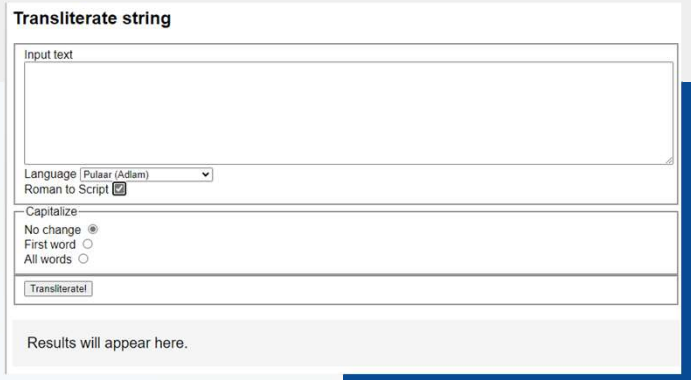
TRANSLITERATION TOOLS

Standalone web-based tool



Scriptshifter



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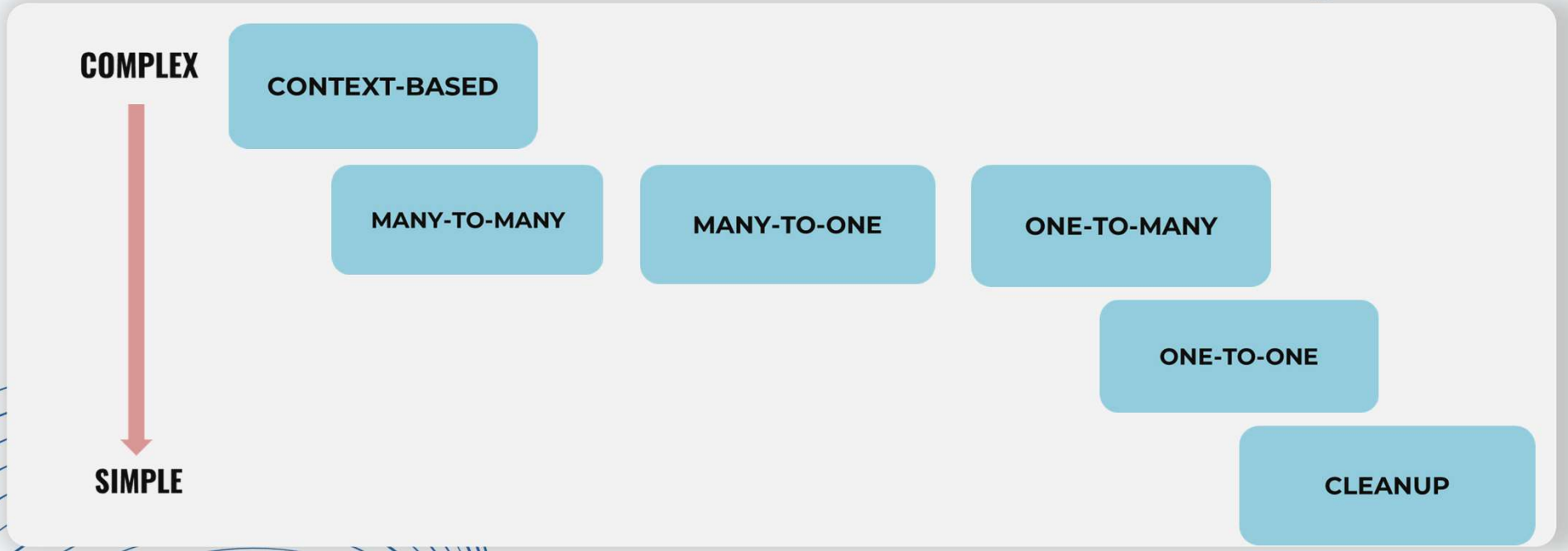
DEVELOPMENT: WEB TOOL

The website is built using JavaScript using regex (regular expressions) to re-map characters in cascading fashion.



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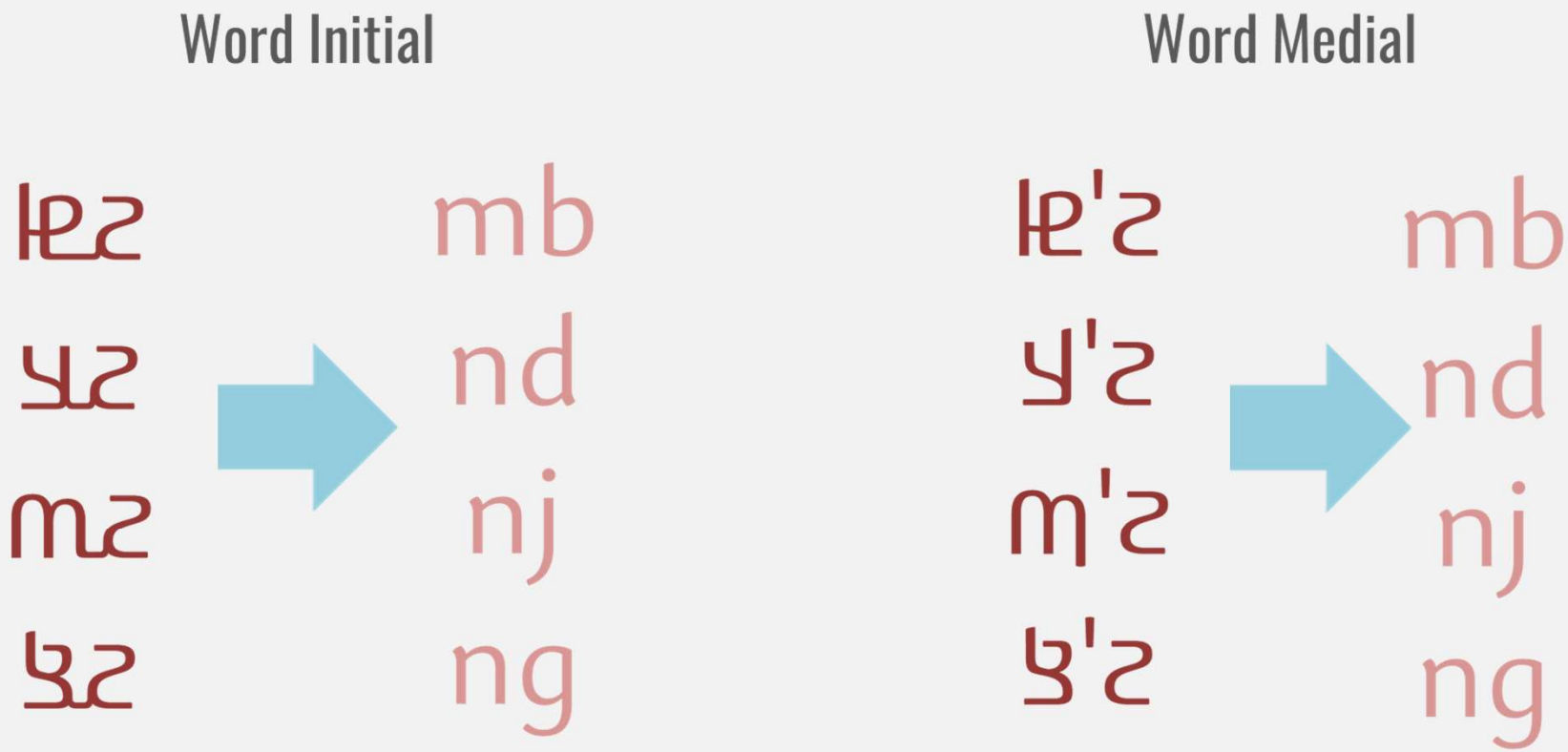
CONTEXT-BASED

word initial vs word medial pre-nasalization



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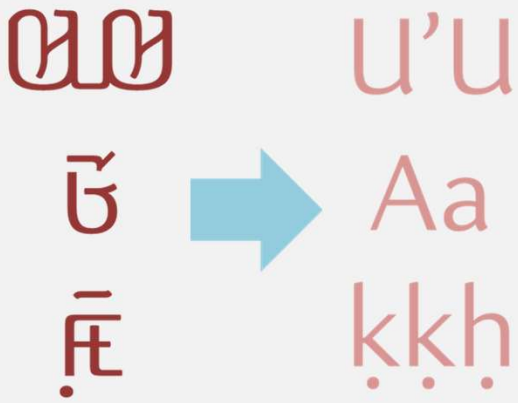
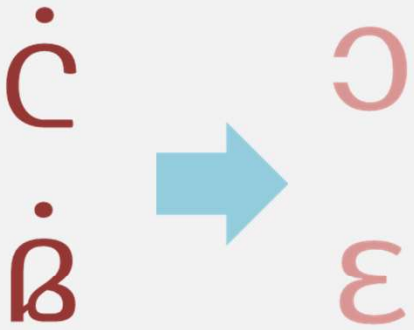
MANY COMBINATIONS

non-geminated vowels, diacritic combinations, digraphs

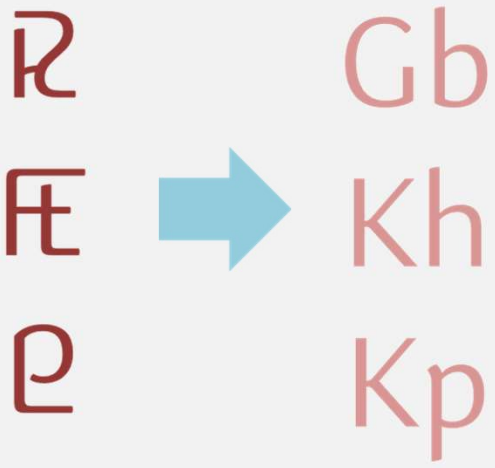
MANY-TO-MANY



MANY-TO-ONE



ONE-TO_MANY



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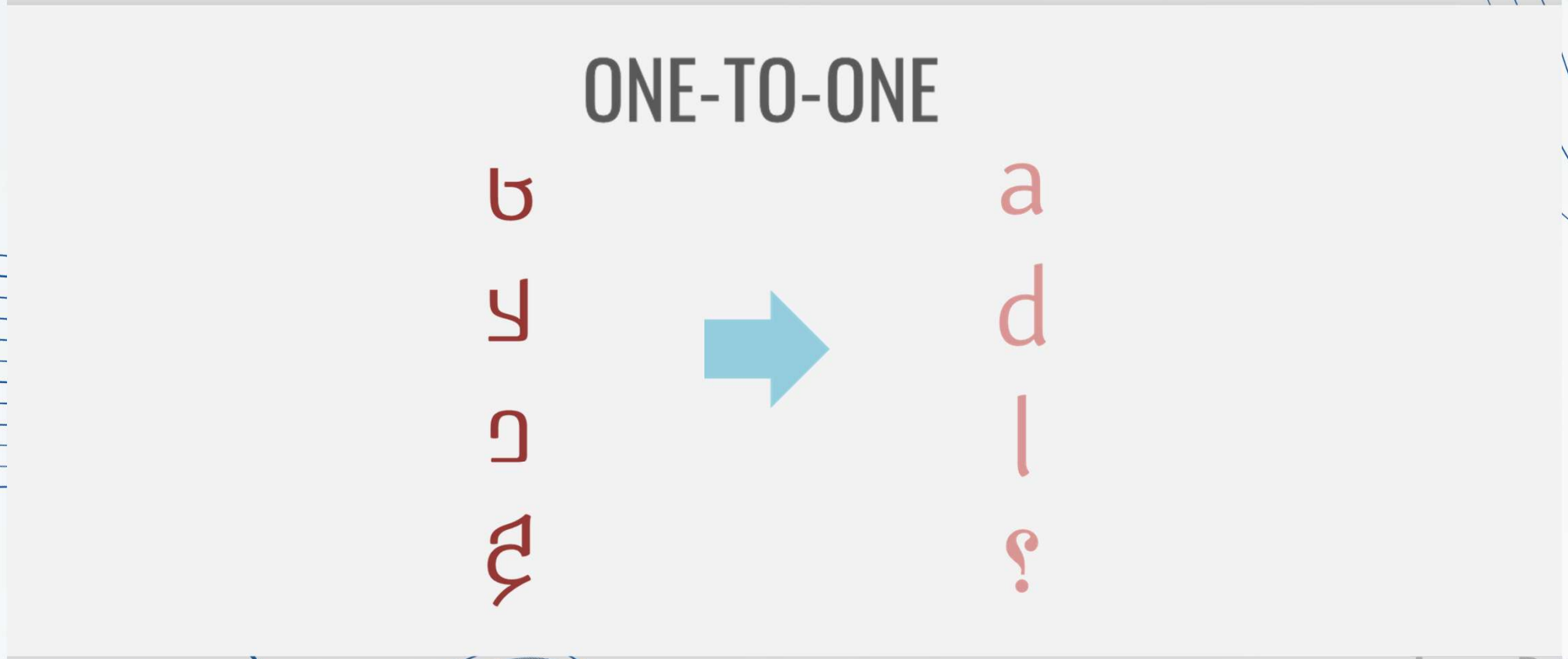
ONE-TO-ONE

simple substitutions



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CLEANUP

clean capitalization of digraphs

POST TRANSLITERATION

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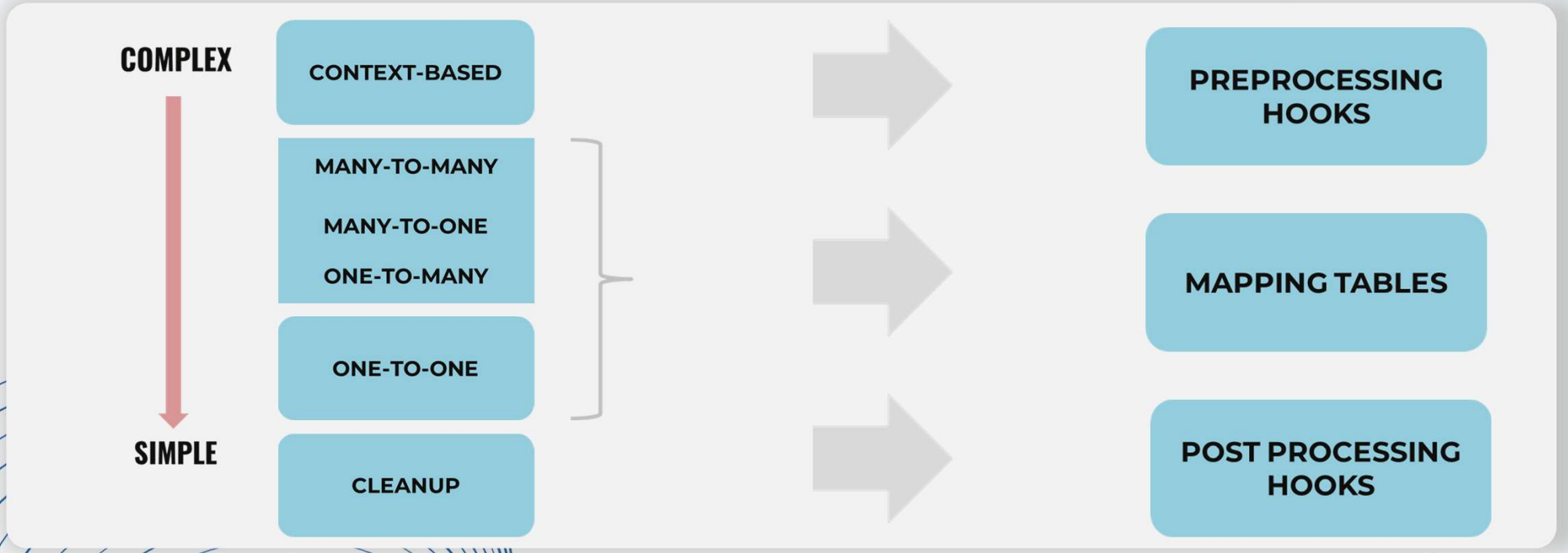
DEVELOPMENT: SCRIPTSHIFTER

ScriptShifter has its own implementation but the logic from the web tool is compatible.



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DEMO

https://sites.google.com/jamra-patel.com/loc-text-conversion-utilities/adlam-transliteration

Transliterate string — LoC Transliterator (bibframe.org)

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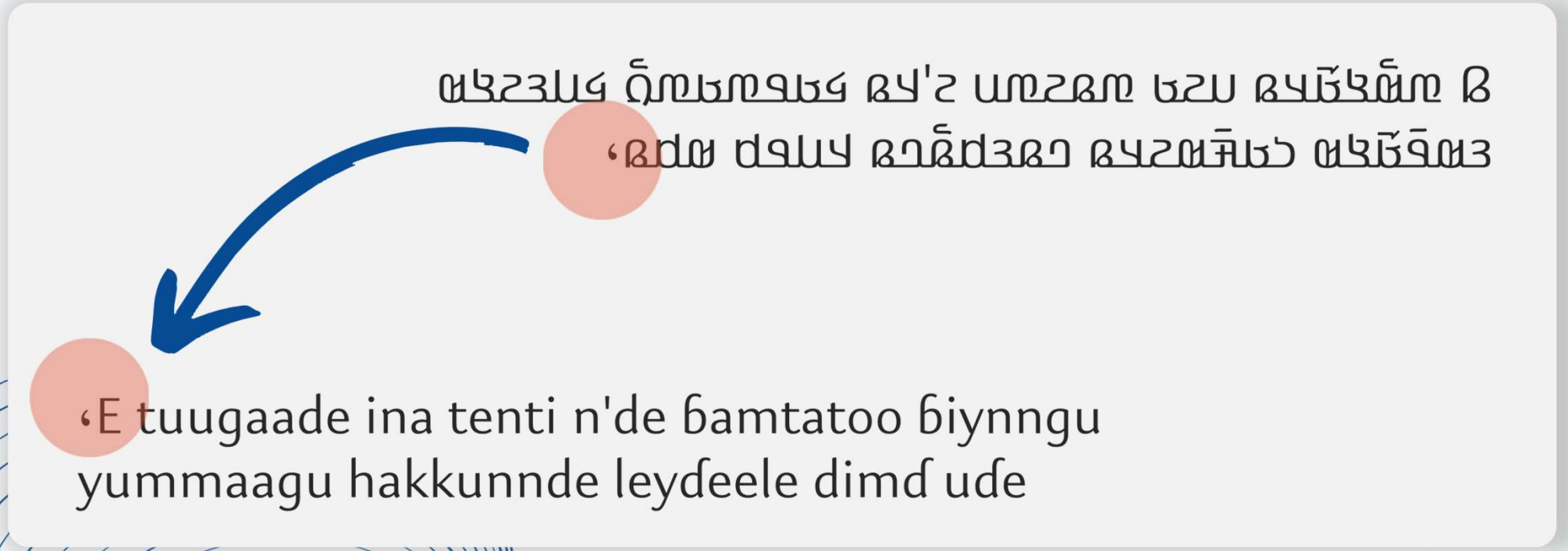
FUTURE WORK: ERROR CHECK

By design the transliteration tools pass through any characters that are not in the romanization table.



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ROMANIZATION:

NECESSITY AND OPPORTUNITIES FOR TECHNOLOGY

Jessalyn Zoom

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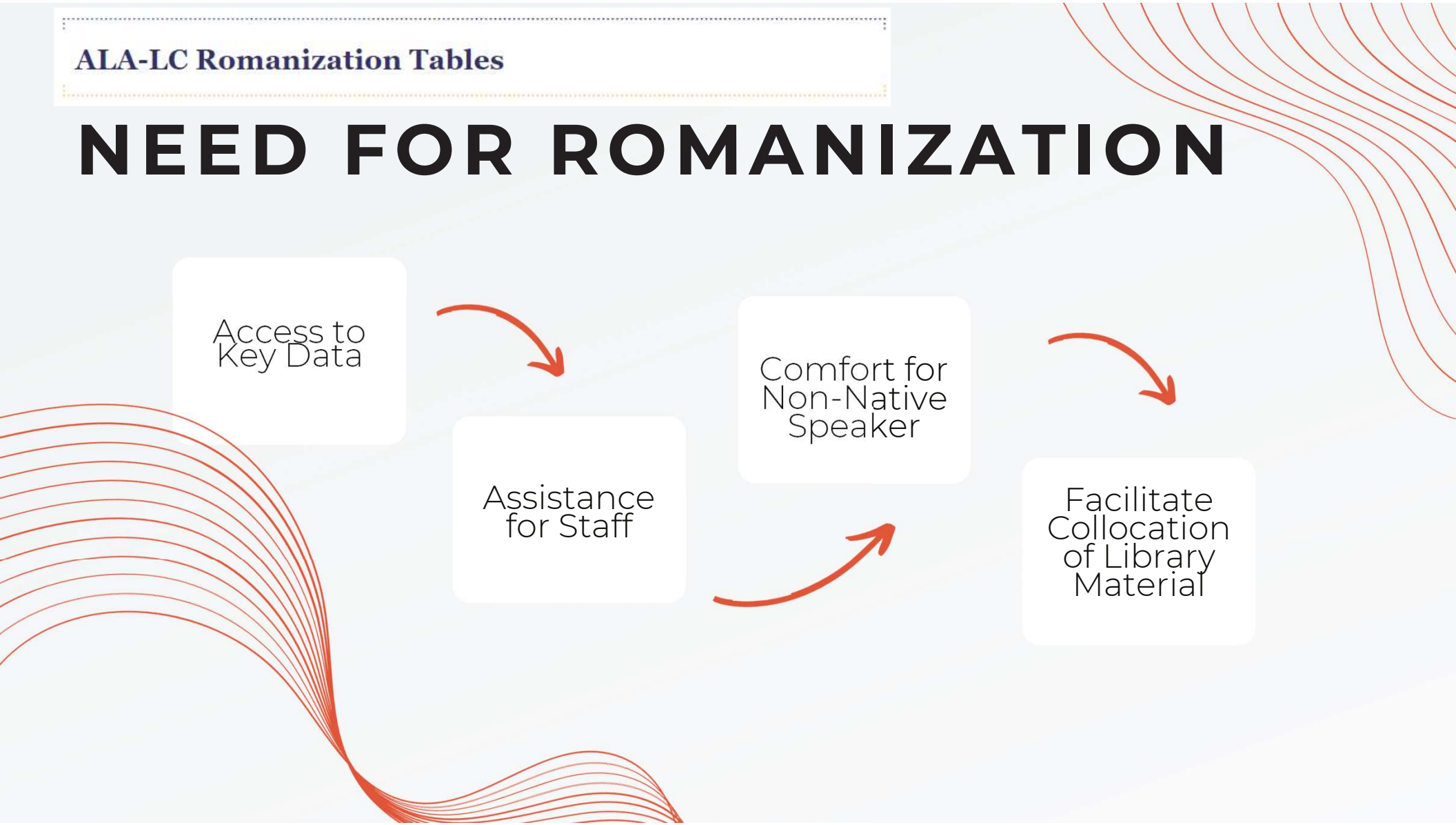
ALA-LC Romanization Tables

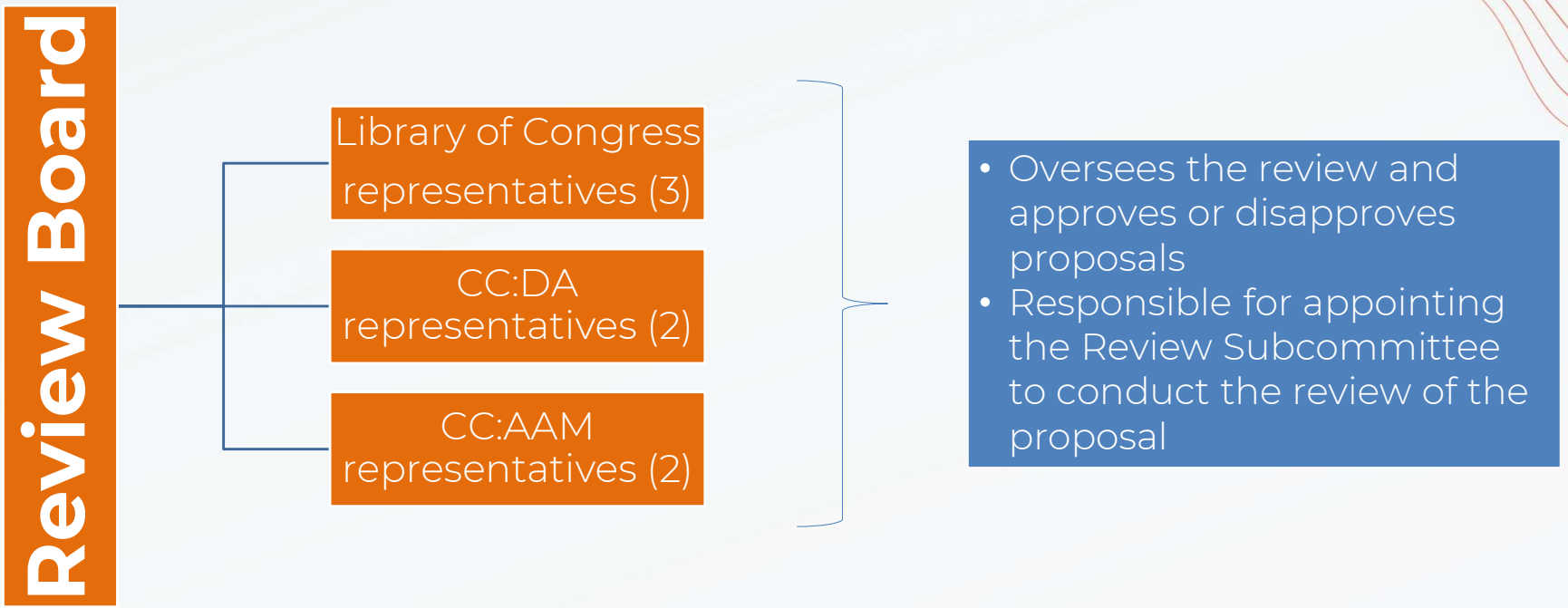
NEED FOR ROMANIZATION



REVISED PROCEDURAL GUIDELINES FOR PROPOSED NEW OR REVISED ROMANIZATION GUIDELINES

https://www.loc.gov/catdir/cpso/romguid_2010.html

ALA-LC ROMANIZATION REVIEW BOARD



WORK ACCOMPLISHED

OPPORTUNITIES OF TECHNOLOGY

THANK YOU!

Jessalyn Zoom: jiwu@loc.gov
Erin Freas-Smith: efre@loc.gov
Charles Riley: charles.riley@yale.edu
Neil Patel: neil@jamra-patel.com