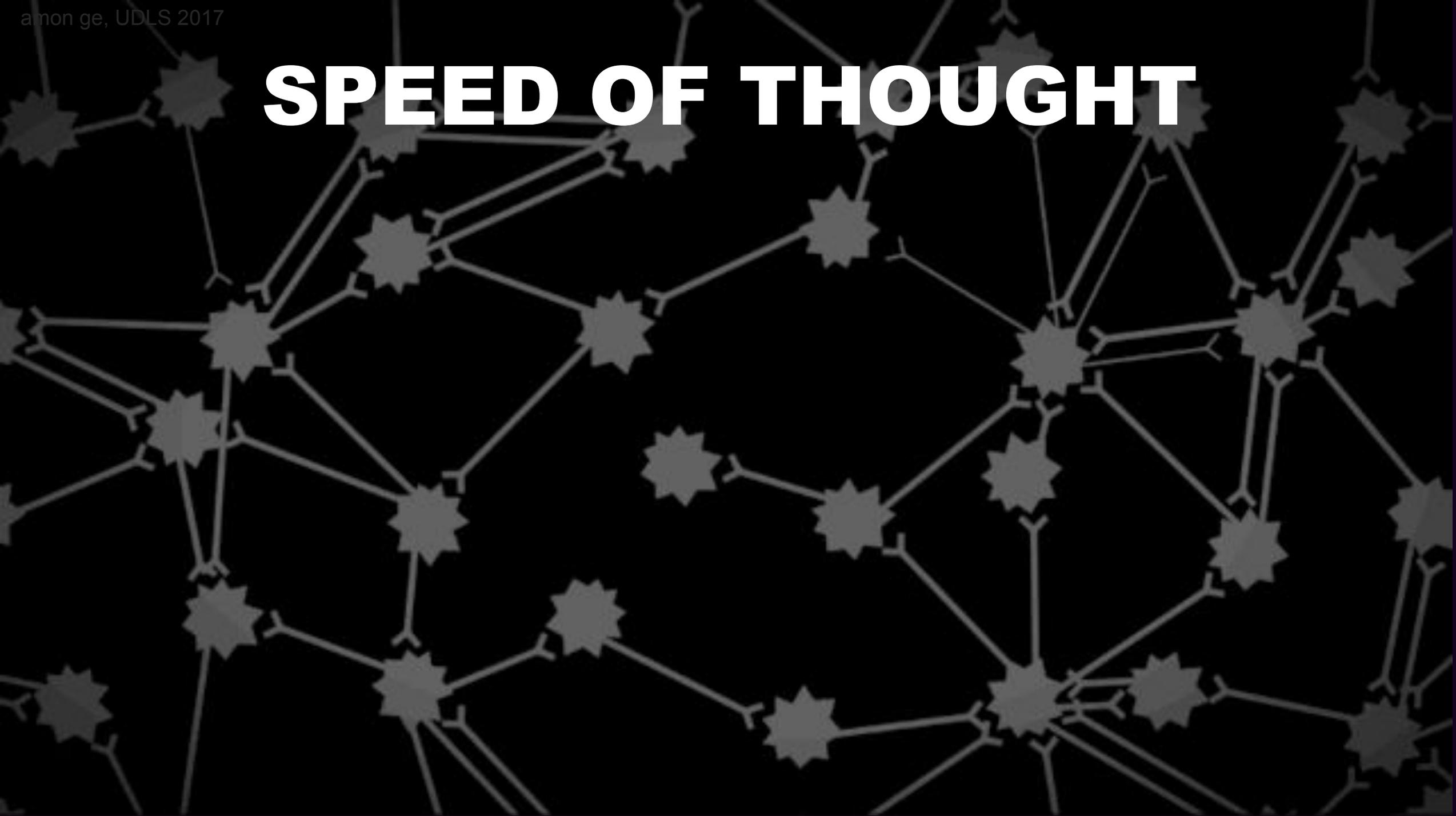
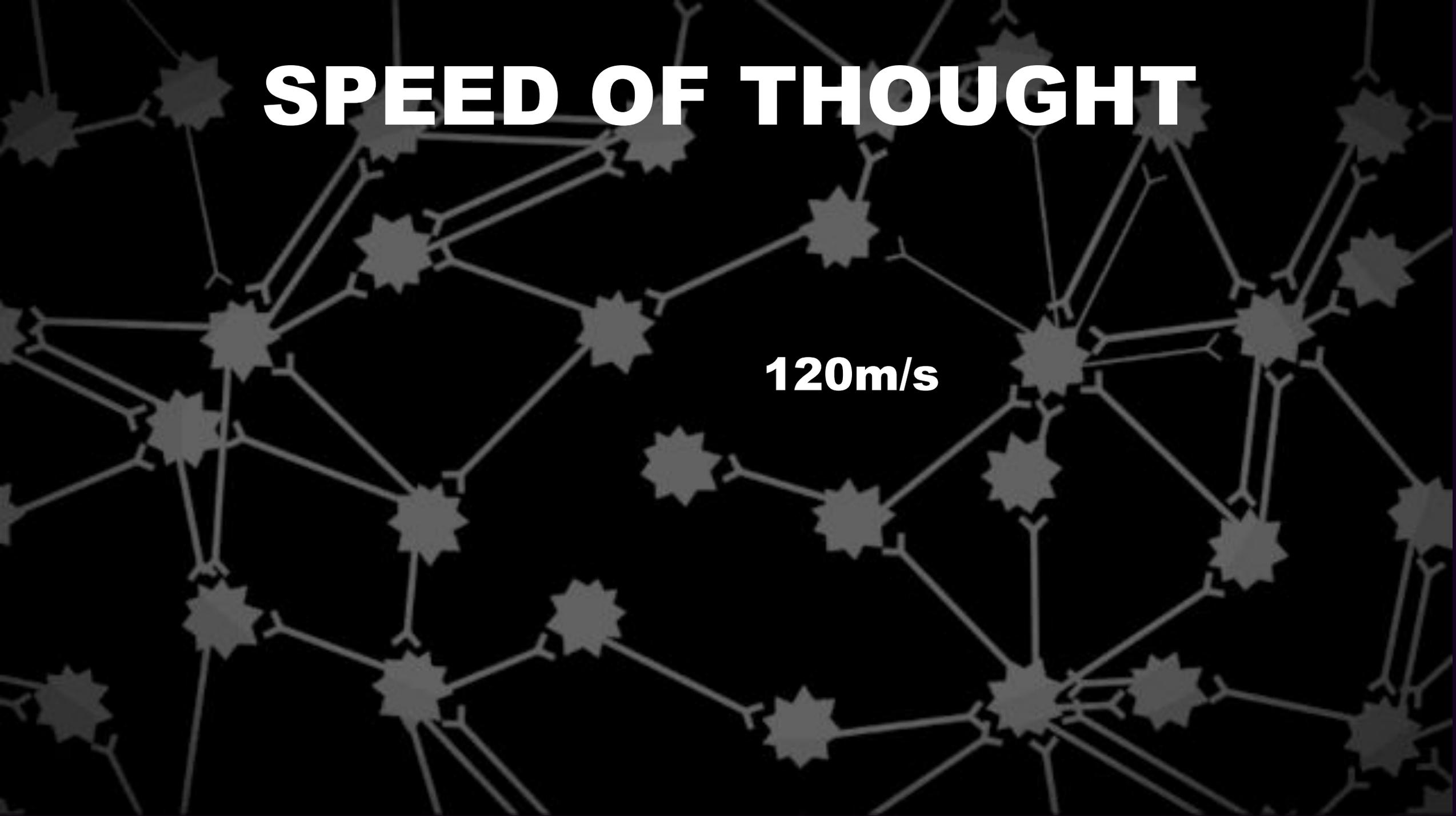


# SPEED OF THOUGHT



# **SPEED OF THOUGHT**

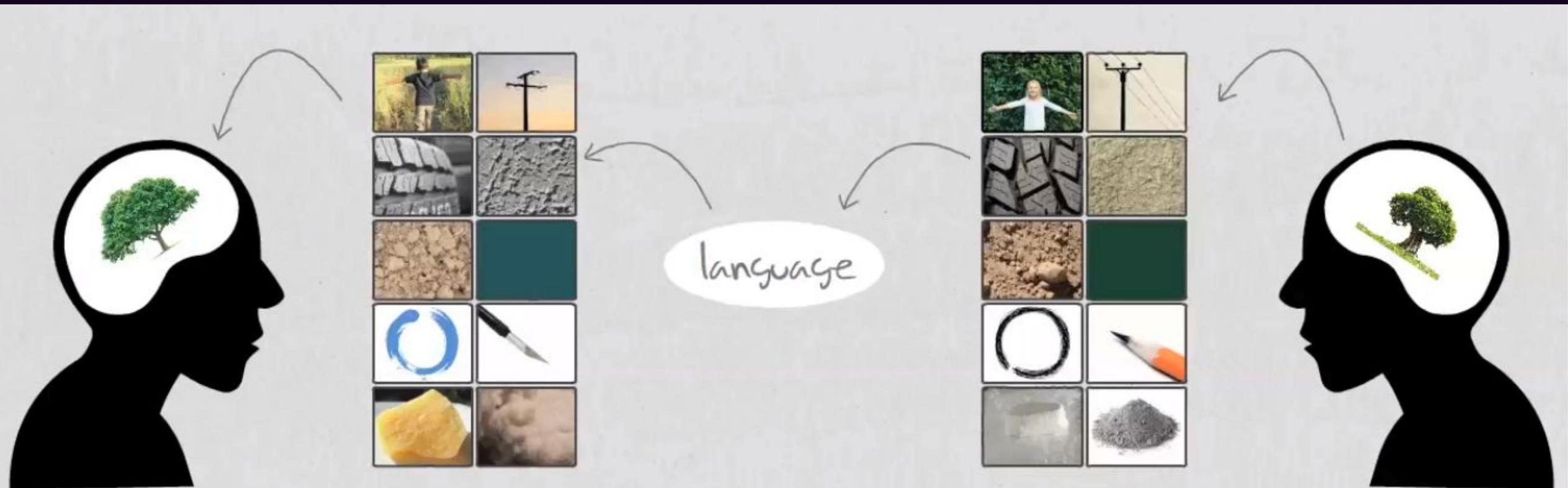


**120m/s**

# SPEED OF THOUGHT



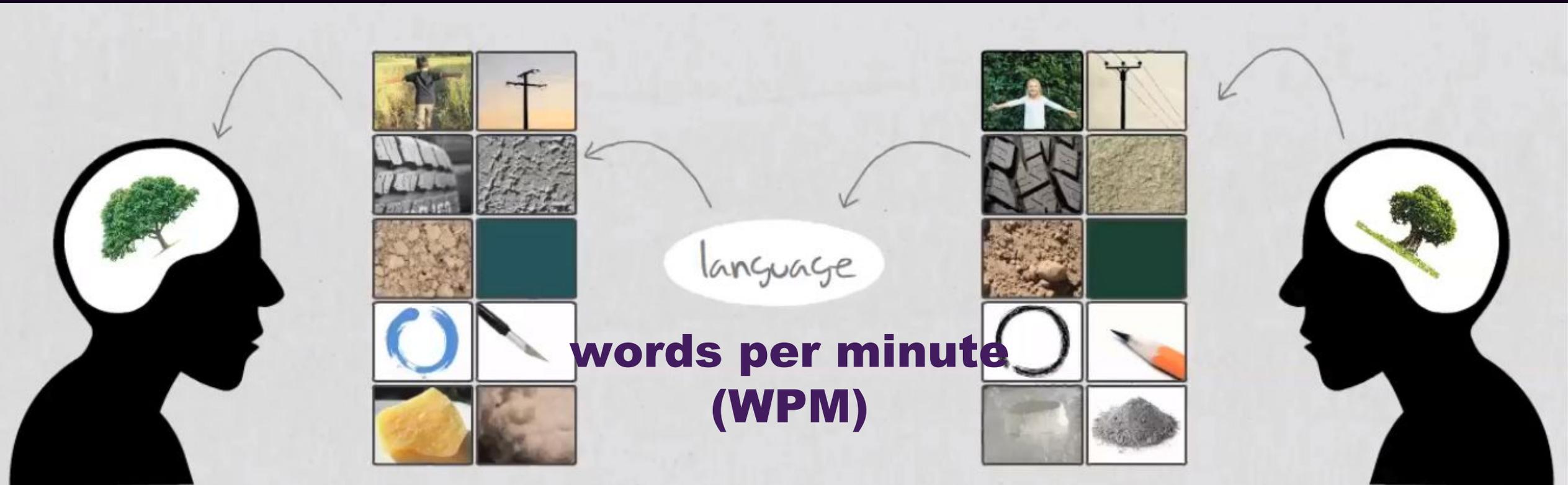
COMMUNICATIVE



# SPEED OF THOUGHT



COMMUNICATIVE

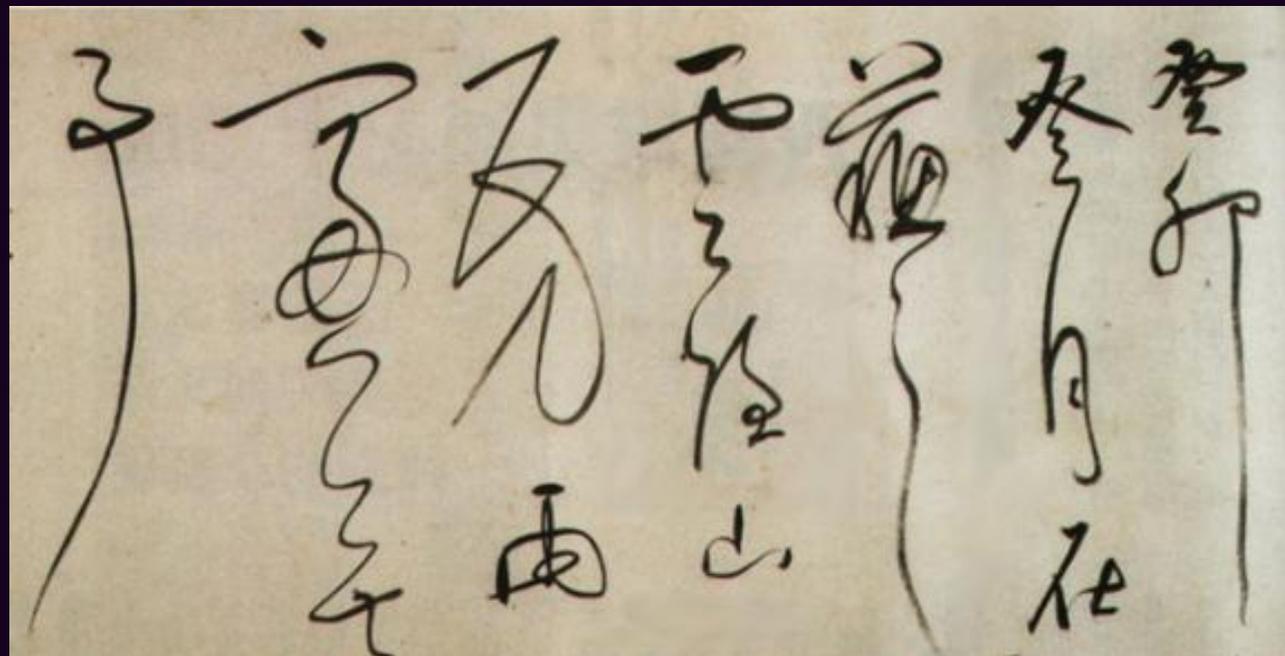


# DISCLAIMER

# DISCLAIMER



korean stenotype



chinese calligraphy

**LISTENING + SPEAKING**

# LISTENING + SPEAKING

audiobook: 150 WPM



# LISTENING + SPEAKING

audiobook: 150 WPM

conversation: **180 WPM**

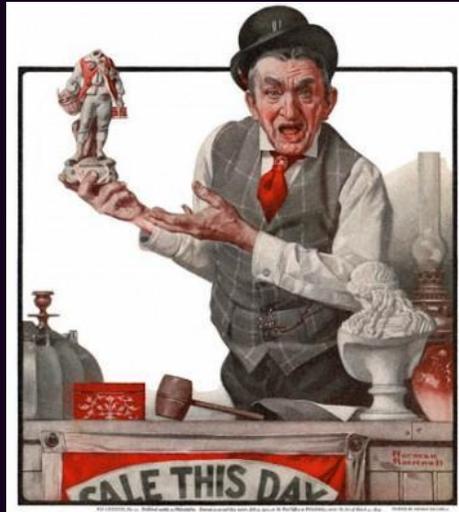


# LISTENING + SPEAKING

audiobook: 150 WPM

conversation: 180 WPM

auctioneer: 250 WPM



# LISTENING + SPEAKING

audiobook: 150 WPM

conversation: 180 WPM

auctioneer: 250 WPM

THIS GUY: '600' WPM



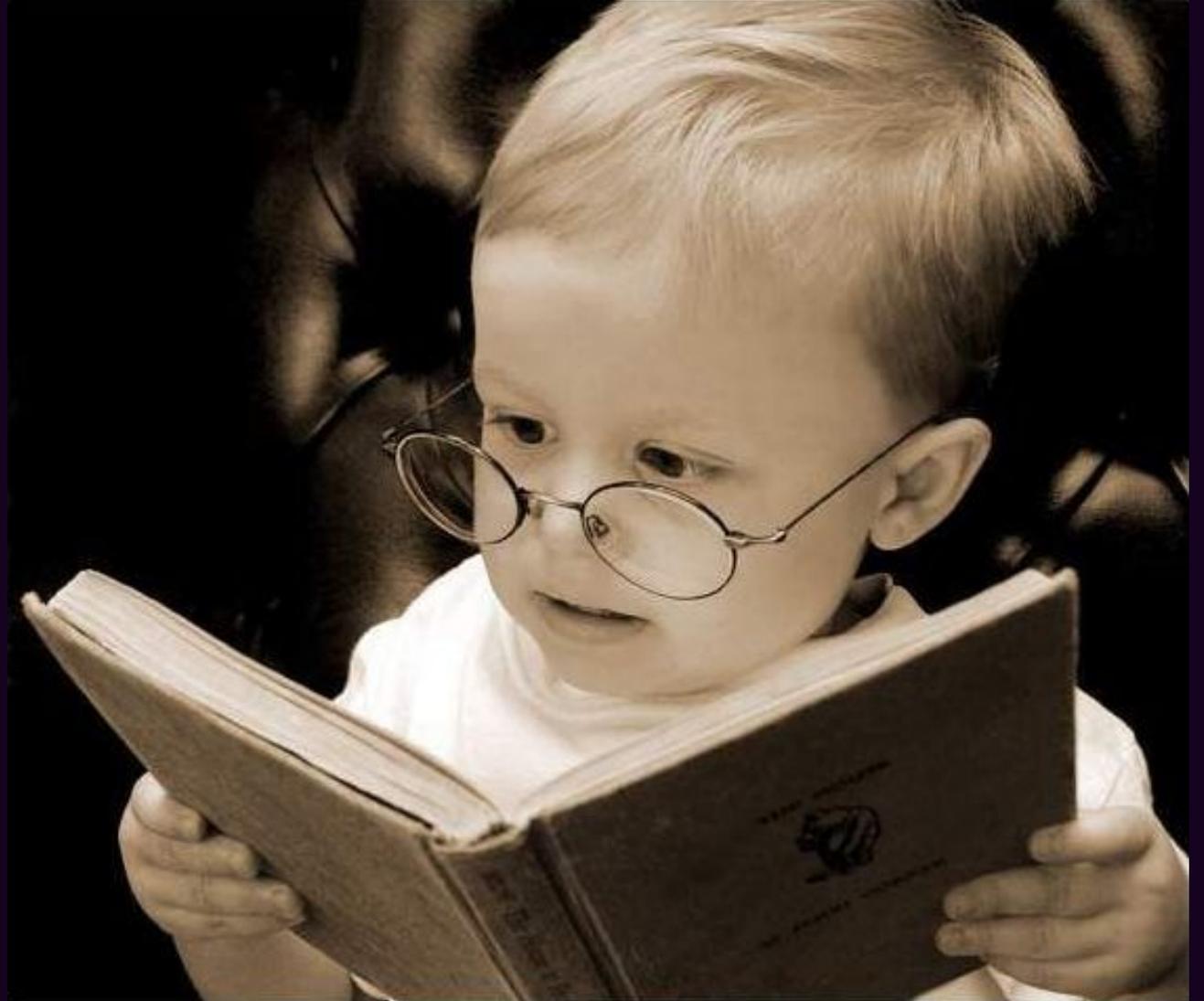
*John Moschitta: <https://youtu.be/NeK5ZjtpO-M>*

# READING

average: 250 WPM

speed reader: 700 WPM

attested: 1000+ WPM



# RECORDING: WRITING IT DOWN



# CURSIVE

REGULAR

20

## SPECIAL STUDIES OF THE CAPITALS, SMALL LETTERS, AND FIGURES

A B C D E E F G H I J K L M  
 N O P Q R S T U V W X Y Z  
 a b c d e f g h i j k l m n o p  
 q r s t u v w x y z 1 2 3 4 5 6 7 8 9 0.

Pupils who have studied and followed the explanations, suggestions, and instructions so far, will have sufficient control of the muscular movement to master easily the letters on this page.

Those who have not been thorough in studying the instruction and practicing the drills should review. Nothing less than failure can follow superficial study.

The capitals, small letters, and figures are given at this point for

convenient reference, and an effort should be made hereafter to employ these forms in all the written work.

**One lesson each week should be devoted to special study and practice of the capitals until they are mastered.**

Capitals, small letters, and figures will all be taught thoroughly in the following lessons.

**A few minutes in the right way are worth more than hours of practice in the wrong way.**

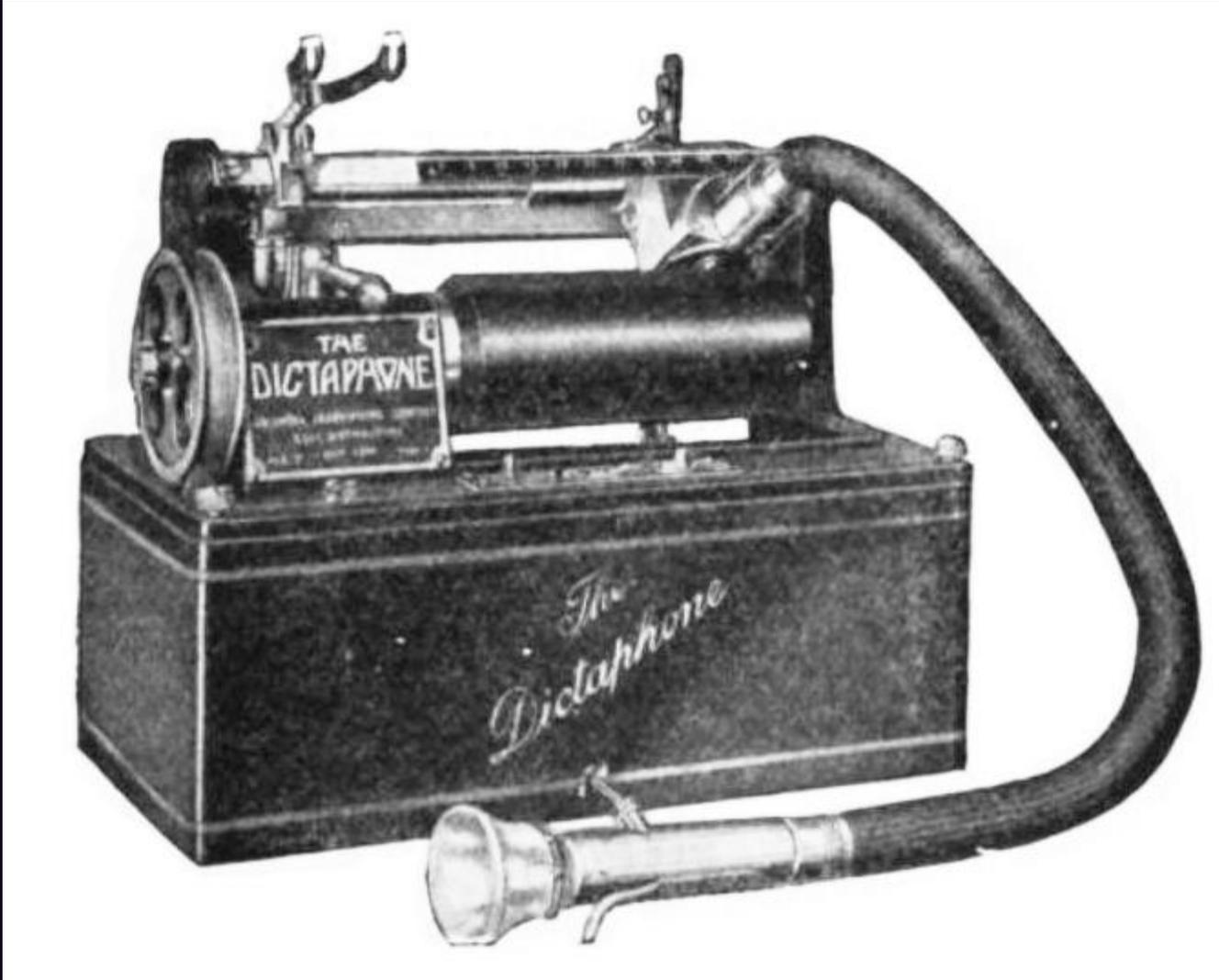
# MORSE CODE



[https://youtu.be/q\\_ZEwZzuqW0](https://youtu.be/q_ZEwZzuqW0)

as fast as speech: 250 WPM

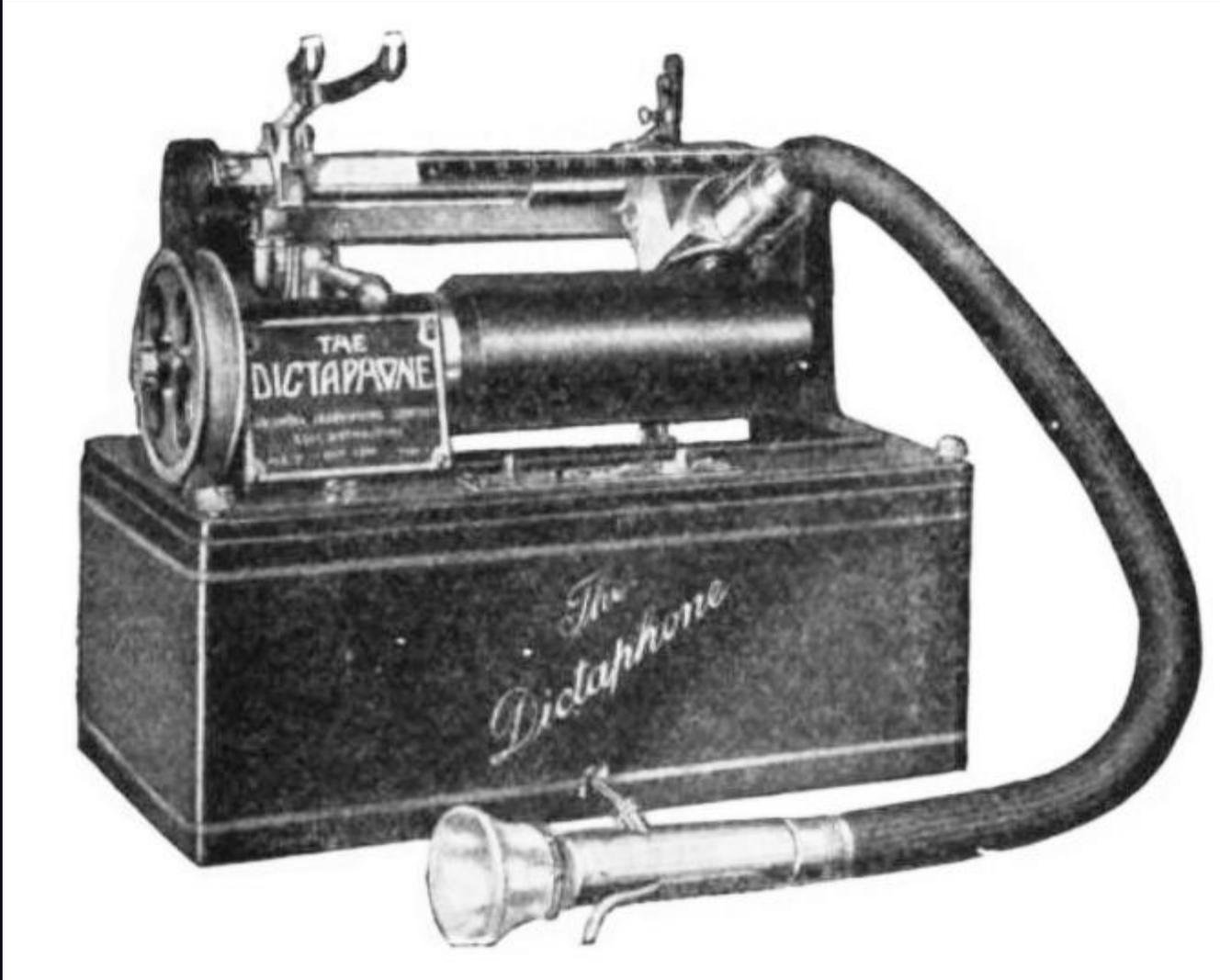
# AUDIO



**Dictaphone (1907)**

as fast as speech: 250 WPM

# AUDIO

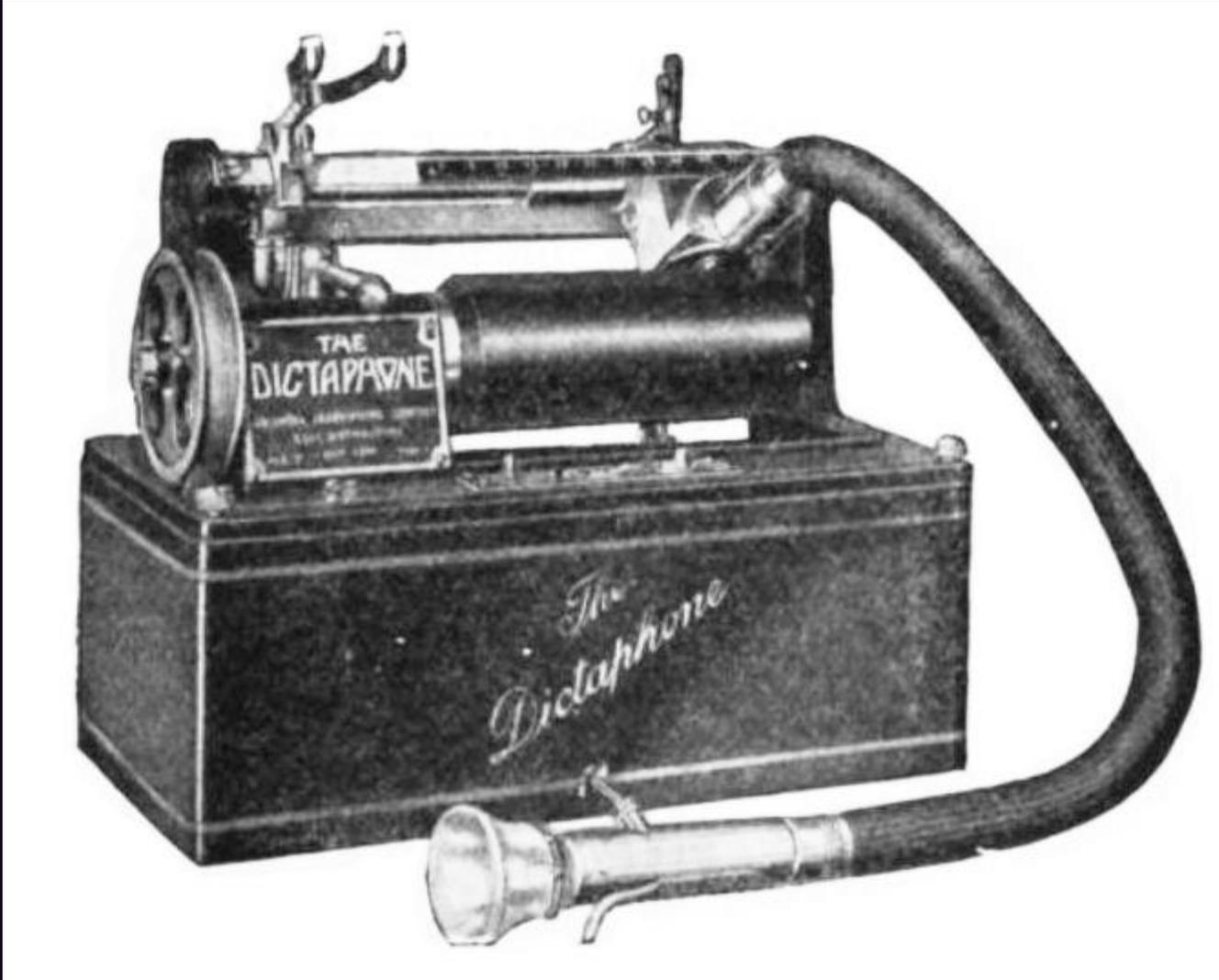


but that means we can only receive at 250 WPM!

**Dictaphone (1907)**

as fast as speech: 250 WPM

# AUDIO



**Dictaphone (1907)**

but that means we can only receive at 250 WPM!

**writing (text)** exploits:

- fast reading
- fast seek times
- aggregation, search, analytics

# SHORTHAND

GREGG.

ISAAC PITMAN.

GRAHAM.

MUNSON.

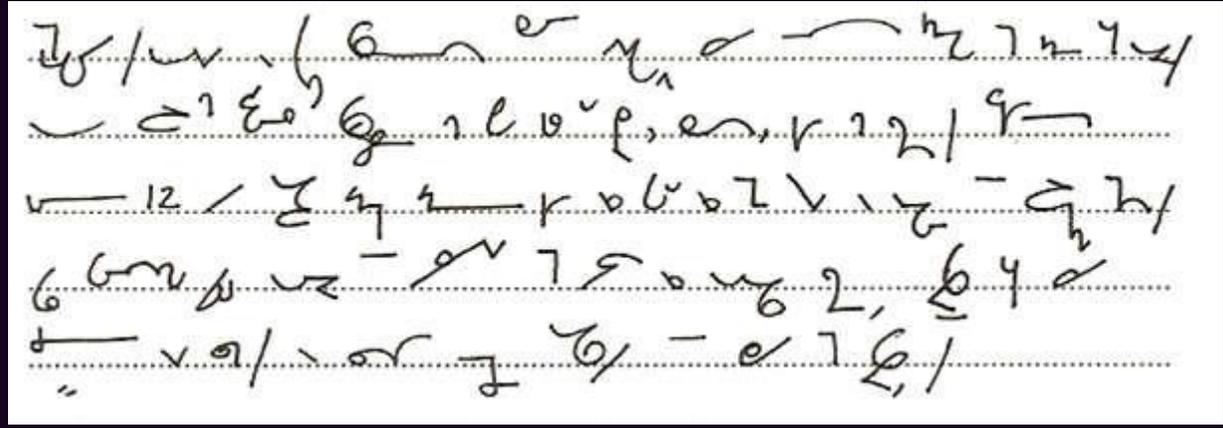
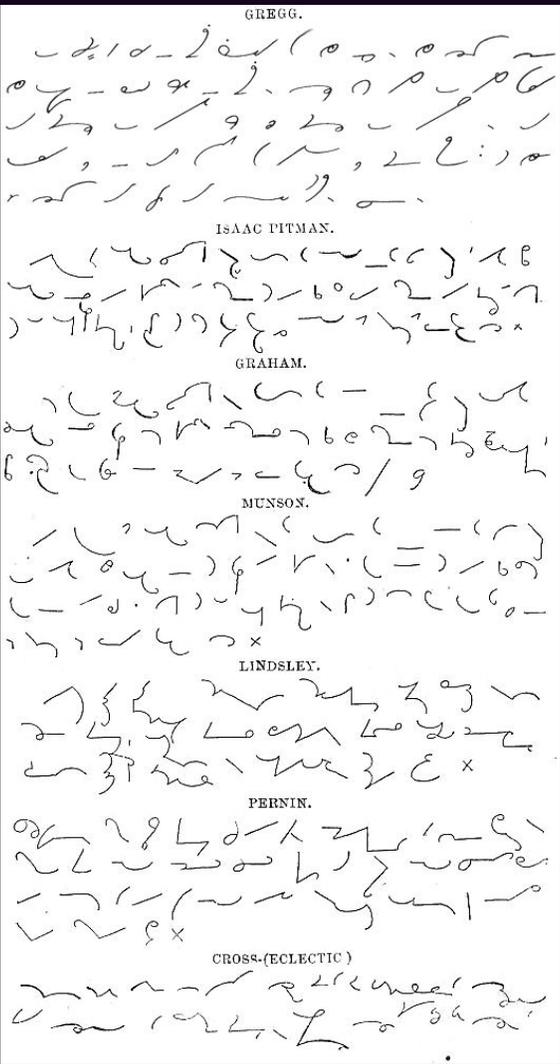
LINDSLEY.

PERNIN.

CROSS-(ELECTIC)

as early as 1837

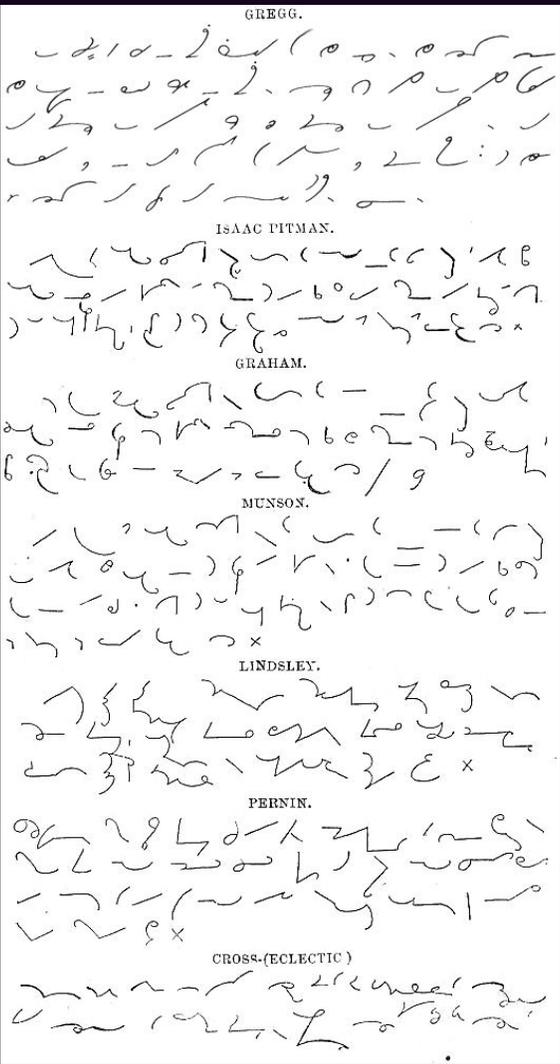
# SHORTHAND



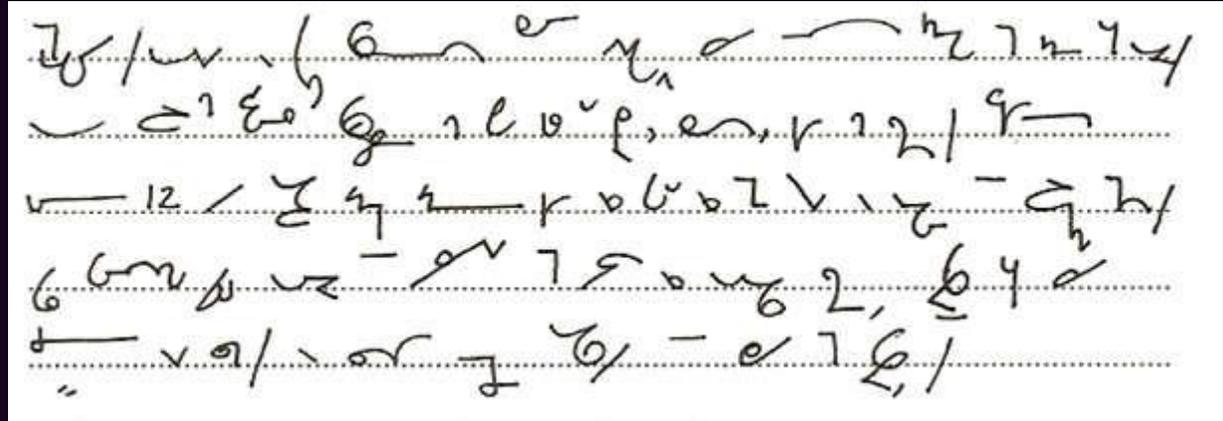
Teeline (1968)

as early as 1837

# SHORTHAND



*requires decoding...*



**Teeline (1968)**

**as early as 1837**

# TYPEWRITER

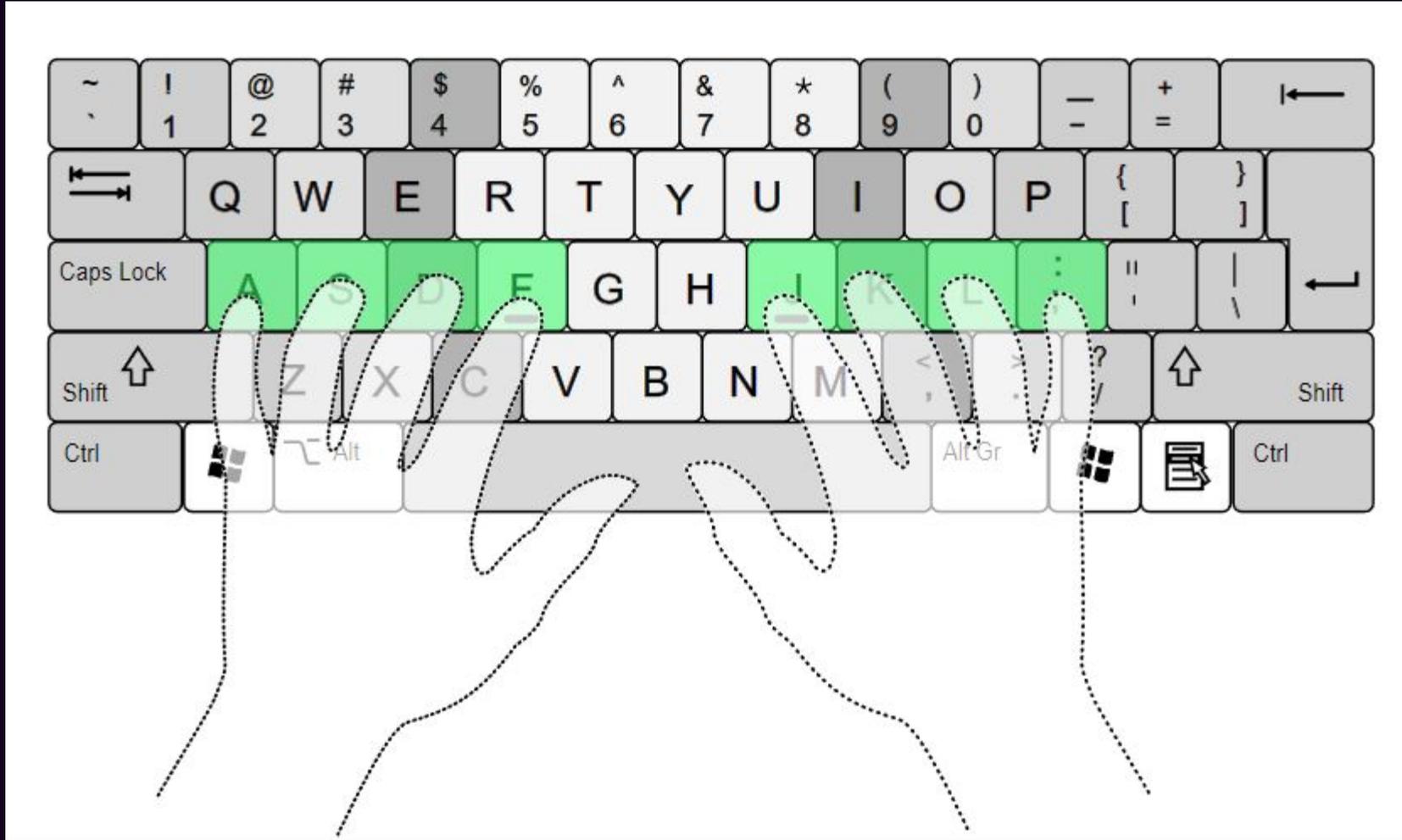


**Sholes and Glidden (1874)**



hunt and peck

# TOUCH TYPING



~1880

# ALTERNATE LAYOUTS

~ `	! 1	@ 2	# 3	\$ 4	% 5	^ 6	& 7	* 8	( 9	) 0	{ [	} ]	← Backspace	
Tab ↔	" ,	< ,	> .	P	Y	F	G	C	R	L	? /	+ =	 \ Enter	
Caps Lock ↑	A	O	E	U	I	D	H	T	N	S	- _	Enter ↵		
Shift ↑	:	Q	J	K	X	B	M	W	V	Z	Shift ↑			
Ctrl	Win Key	Alt									Alt Gr	Win Key	Menu	Ctrl

~ `	! 1	@ 2	# 3	\$ 4	% 5	^ 6	& 7	* 8	( 9	) 0	- _	+ =	← Backspace	
Tab ↔	Q	W	F	P	G	J	L	U	Y	:	{ [	} ]	 \ Enter	
← Backspace	A	R	S	T	D	H	N	E	I	O	" ,	' . /	Enter ↵	
Shift ↑	Z	X	C	V	B	K	M	< ,	> .	? /	Shift ↑			
Ctrl	Win Key	Alt									Alt Gr	Win Key	Menu	Ctrl

# ALTERNATE LAYOUTS

~ `	! 1	@ 2	# 3	\$ 4	% 5	^ 6	& 7	* 8	( 9	) 0	{ [	} ]	← Backspace	
Tab ↔	" '	< ,	> .	P	Y	F	G	C	R	L	? /	+ =	 \ Enter	
Caps Lock ↑	A	O	E	U	I	D	H	T	N	S	- _	Enter ↵		
Shift ↑	:	Q	J	K	X	B	M	W	V	Z	Shift ↑			
Ctrl	Win Key	Alt									Alt Gr	Win Key	Menu	Ctrl

**DVORAK (1936)**

~ `	! 1	@ 2	# 3	\$ 4	% 5	^ 6	& 7	* 8	( 9	) 0	- _	+ =	← Backspace	
Tab ↔	Q	W	F	P	G	J	L	U	Y	:	{ [	} ]	 \ Enter	
← Backspace	A	R	S	T	D	H	N	E	I	O	" ,	' . /	Enter ↵	
Shift ↑	Z	X	C	V	B	K	M	< ,	> .	? /	Shift ↑			
Ctrl	Win Key	Alt									Alt Gr	Win Key	Menu	Ctrl

**COLEMAK (2006)**

# ALTERNATE LAYOUTS

~	!	@	#	\$	%	^	&	*	(	)	{	}	←
1	2	3	4	5	6	7	8	9	0	[	]	Backspace	
Tab	"	<	>	P	Y	F	G	C	R	L	?	+	
↔	,	.								/	=	\	
Caps Lock	A	O	E	U	I	D	H	T	N	S	-	Enter	↵
↑												↵	
Shift	:	Q	J	K	X	B	M	W	V	Z	Shift	↵	↵
↑	;										↑	↵	
Ctrl	Win Key	Alt							Alt Gr	Win Key	Menu	Ctrl	

**DVORAK (1936)**

~	!	@	#	\$	%	^	&	*	(	)	-	+	←
1	2	3	4	5	6	7	8	9	0	_	=	Backspace	
Tab	Q	W	F	P	G	J	L	U	Y	:	{	}	
↔										:	[	]	\
←	A	R	S	T	D	H	N	E	I	O	"	Enter	↵
Backspace											'	↵	
Shift	Z	X	C	V	B	K	M	<	>	?	Shift	↵	↵
↑								,	.	/	↑	↵	
Ctrl	Win Key	Alt								Alt Gr	Win Key	Menu	Ctrl

**COLEMAK (2006)**



**ASETNIOP (2012)**

# STENOTYPE

## THE DYING ART OF STENOGRAPHY



1913



THE DYING ART OF  
**STENOGRAPHY**

στενός  
(narrow)

γράφω  
(write)

# THE DYING ART OF **STENOGRAPHY**



**STEGANOGRAPHY**

# WHY CARE?

to type fast!

QWERTY: 120 WPM  
DVORAK: 140 WPM  
STENO: 240 WPM



Steno Hero: <https://youtu.be/UtQzTUEuPWo>

# CAREER

# CAREER



# CAREER



THIS IS NOT A GOODE GOOD  
DECISION BY ELI MAN PENGUIN BOY,

# STENO SCHOOL



2-6 years to reach 225 WPM

# STENO SCHOOL



2-6 years to reach 225 WPM

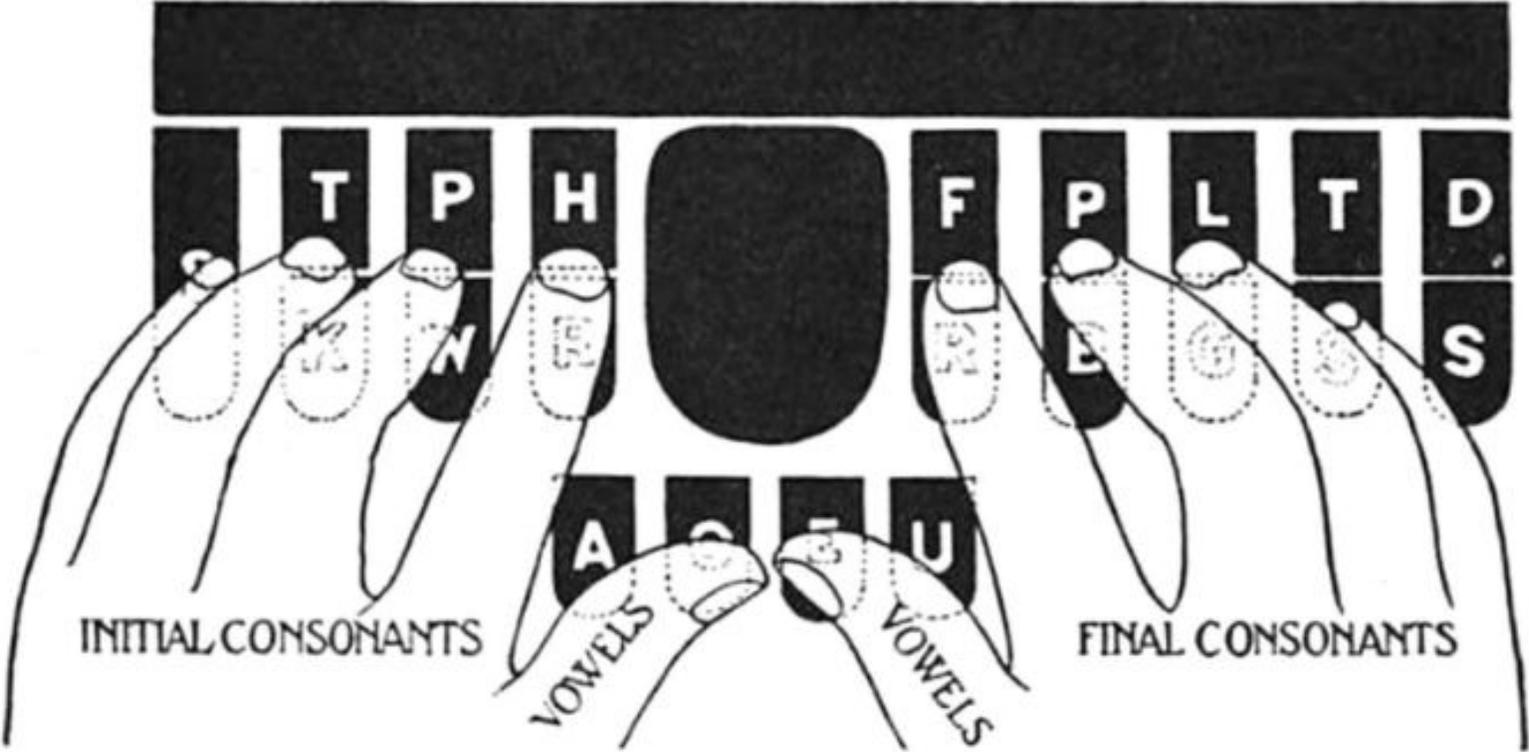
# GENDER



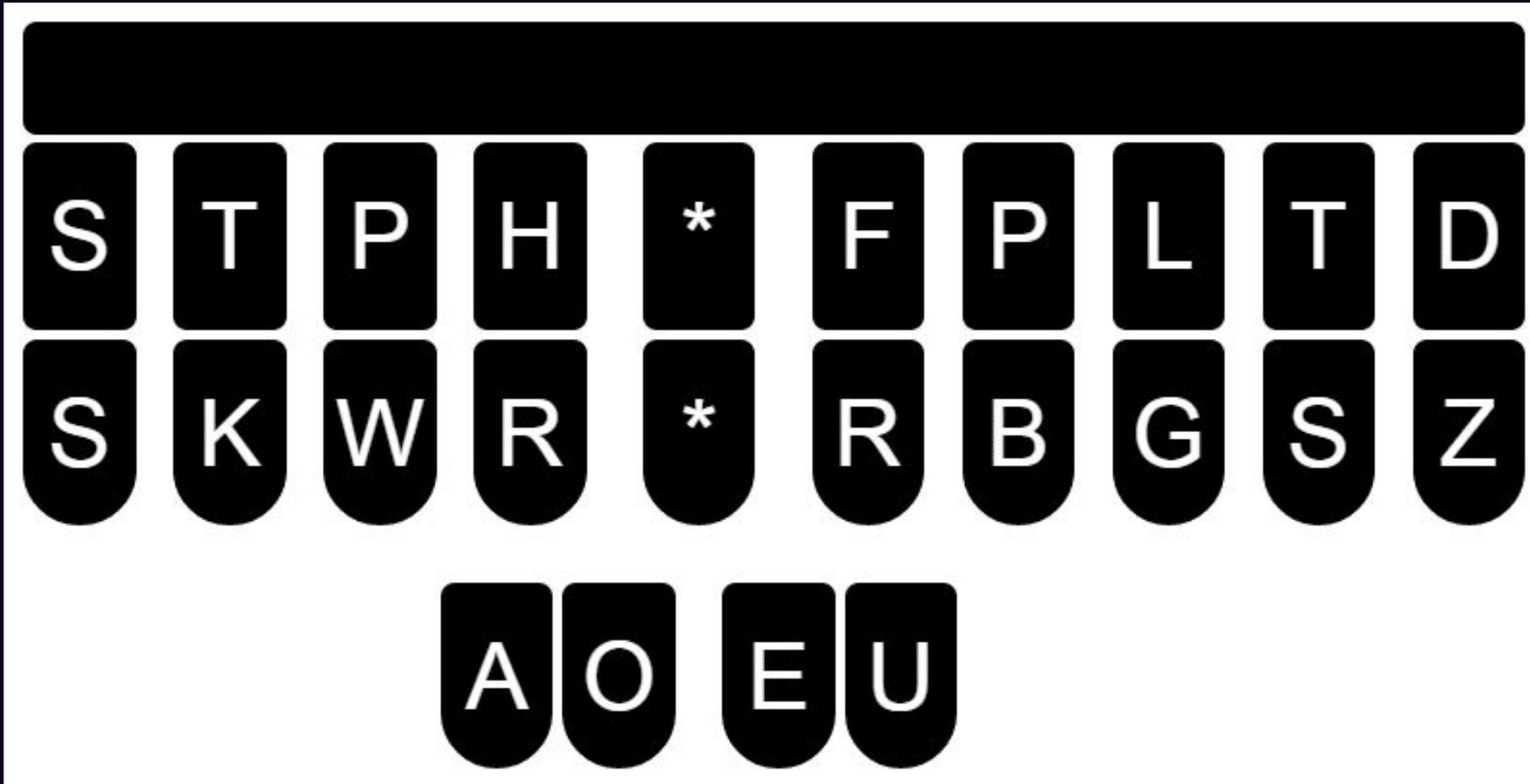
85% women

# STENO KEYBOARD

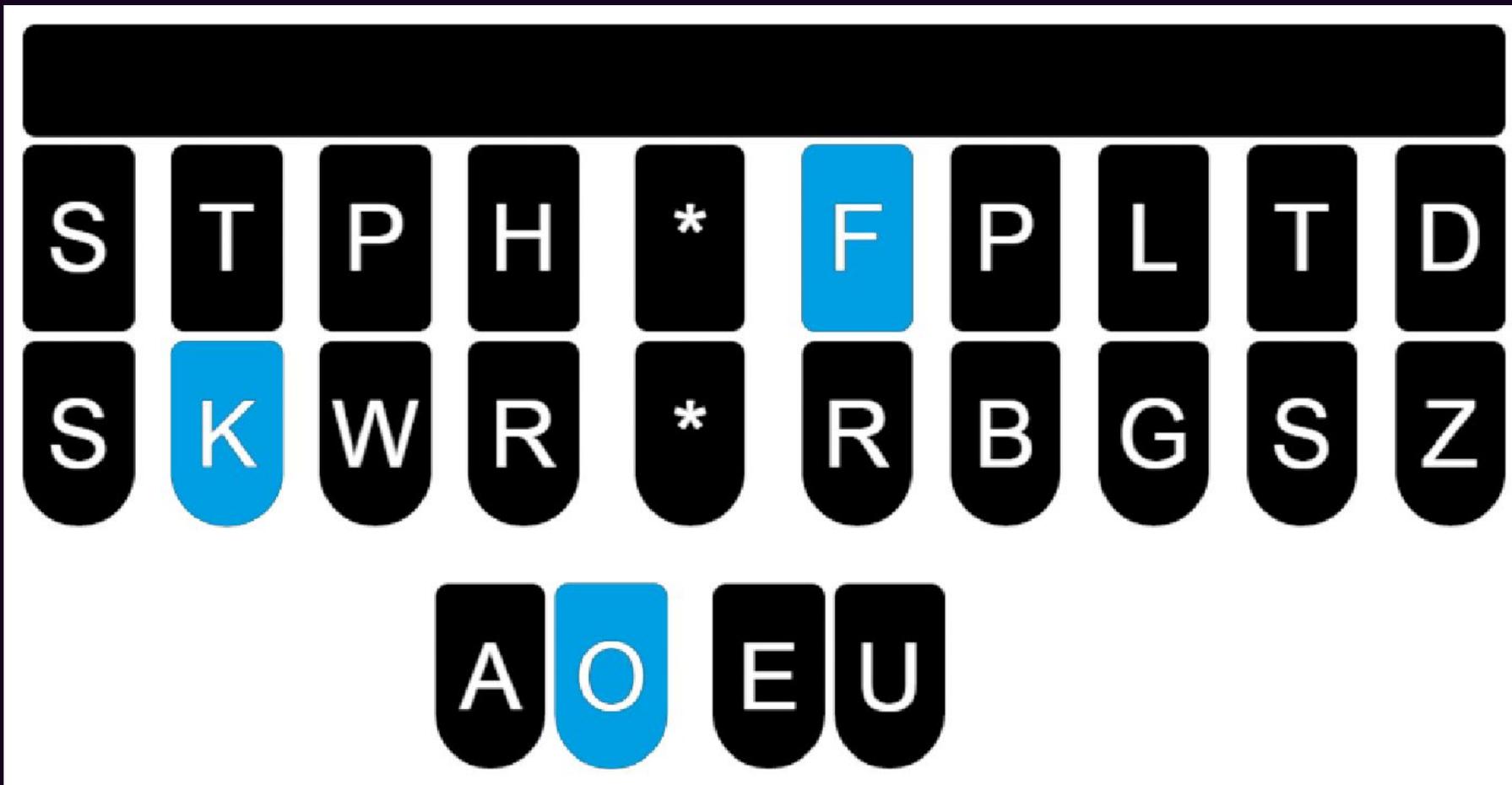
22 keys



# STENO KEYBOARD

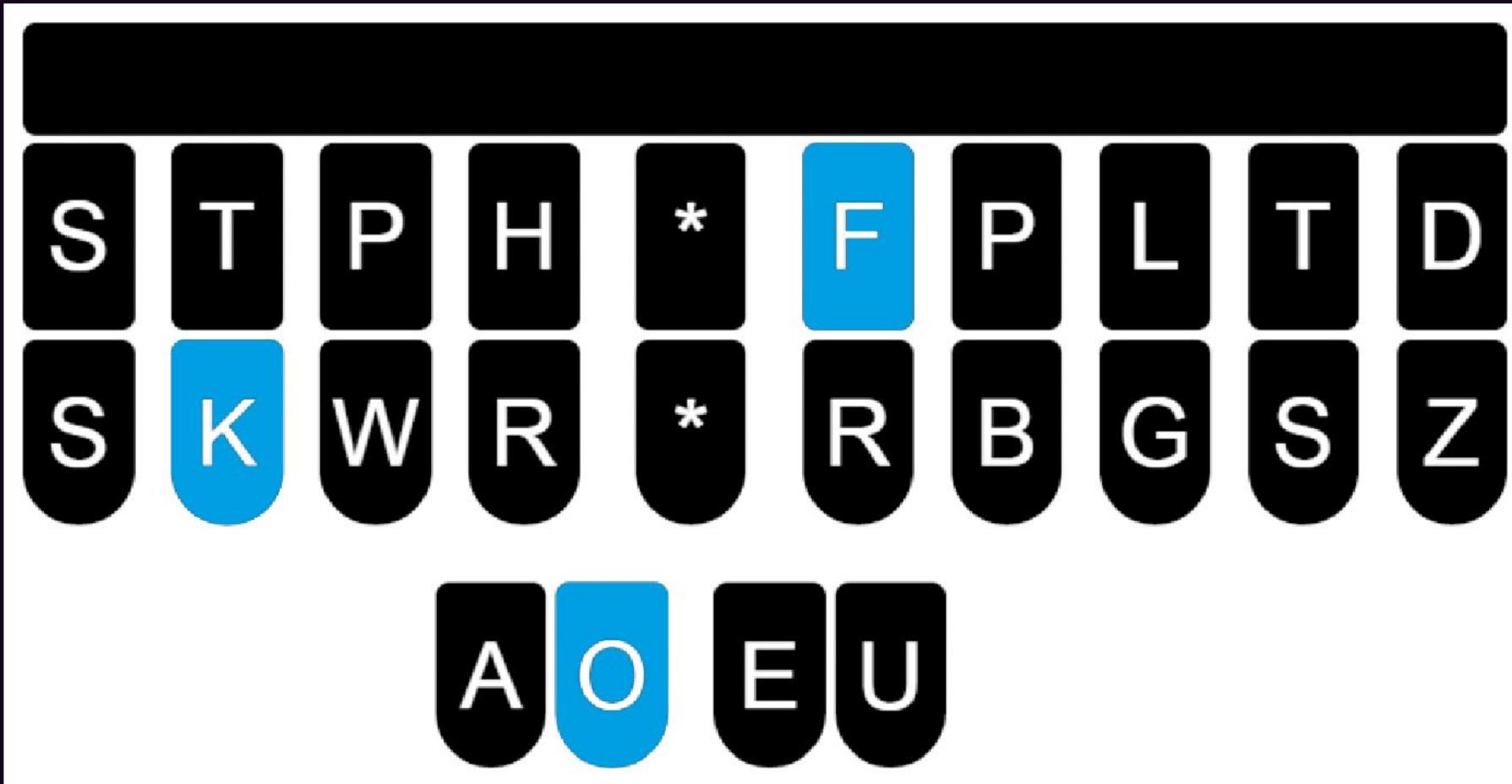


# PHONETIC



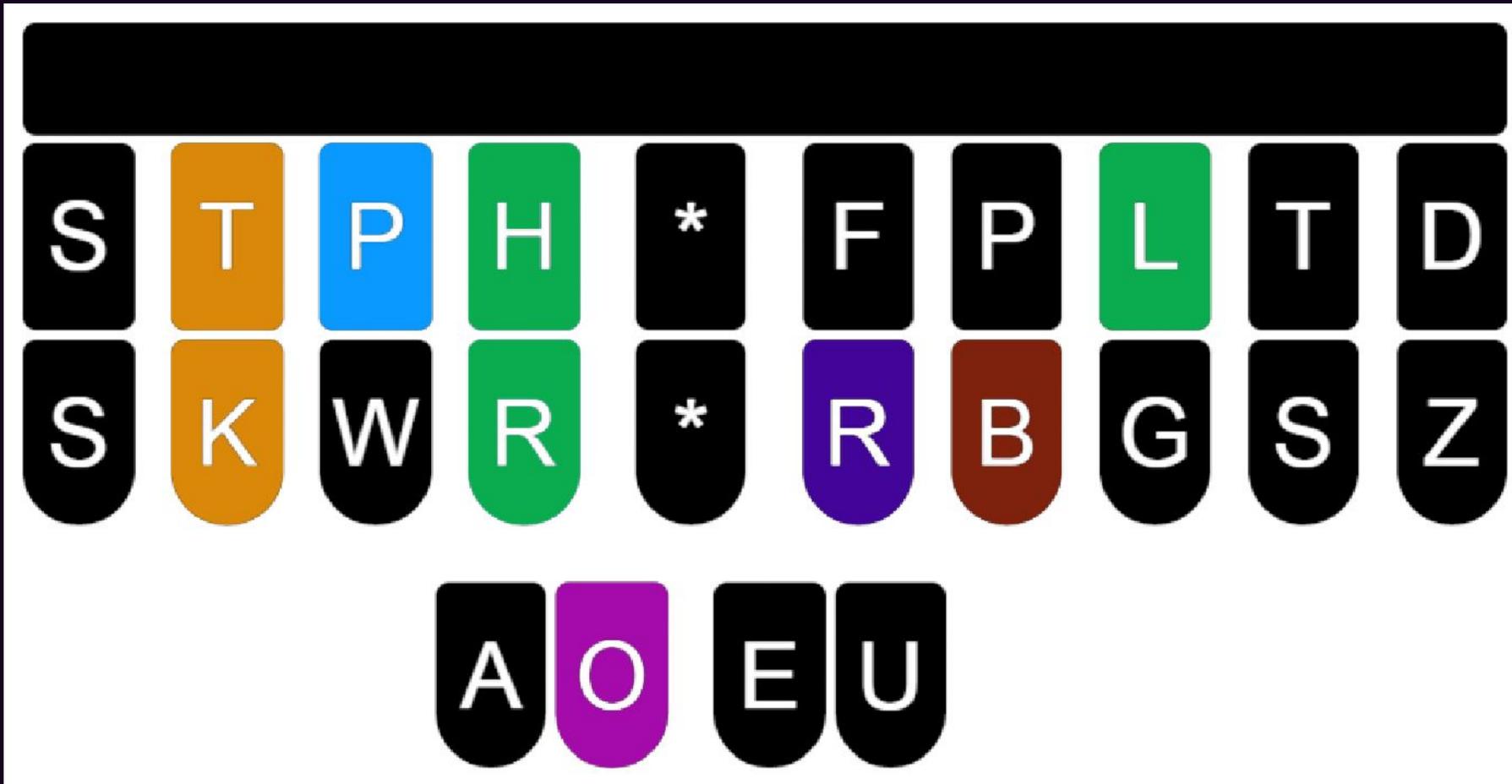
KOF  
cough

# SYLLABIC + CHORDED



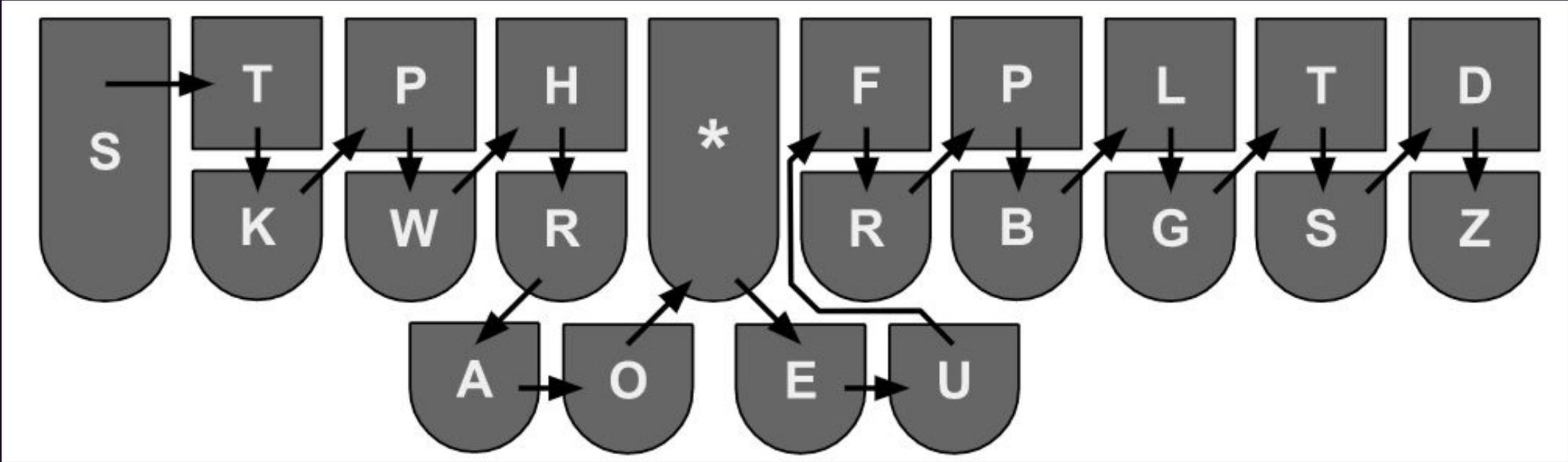
KOF  
cough

# SYLLABIC + CHORDED



TKPHRORBL  
DPLORBL  
deplorable

# STENO ORDER



# MORE CHORDS

## STENO ALPHABET

1 2 3 4 5 6 7 8 9  
S T P H • F P L T D  
S K W R • R B G S Z  
A O E U A

1 2 3 4 5 6 7 8 9  
S T P H • F P L T D  
S K W R • R B G S Z  
A O E U B

1 2 3 4 5 6 7 8 9  
S T P H • F P L T D  
S K W R • R B G S Z  
A O E U C

1 2 3 4 5 6 7 8 9  
S T P H • F P L T D  
S K W R • R B G S Z  
A O E U D

1 2 3 4 5 6 7 8 9  
S T P H • F P L T D  
S K W R • R B G S Z  
A O E U E

1 2 3 4 5 6 7 8 9  
S T P H • F P L T D  
S K W R • R B G S Z  
A O E U F

1 2 3 4 5 6 7 8 9  
S T P H • F P L T D  
S K W R • R B G S Z  
A O E U G

1 2 3 4 5 6 7 8 9  
S T P H • F P L T D  
S K W R • R B G S Z  
A O E U H

1 2 3 4 5 6 7 8 9  
S T P H • F P L T D  
S K W R • R B G S Z  
A O E U I

1 2 3 4 5 6 7 8 9  
S T P H • F P L T D  
S K W R • R B G S Z  
A O E U J

1 2 3 4 5 6 7 8 9  
S T P H • F P L T D  
S K W R • R B G S Z  
A O E U K

1 2 3 4 5 6 7 8 9  
S T P H • F P L T D  
S K W R • R B G S Z  
A O E U L

1 2 3 4 5 6 7 8 9  
S T P H • F P L T D  
S K W R • R B G S Z  
A O E U M

1 2 3 4 5 6 7 8 9  
S T P H • F P L T D  
S K W R • R B G S Z  
A O E U N

1 2 3 4 5 6 7 8 9  
S T P H • F P L T D  
S K W R • R B G S Z  
A O E U O

1 2 3 4 5 6 7 8 9  
S T P H • F P L T D  
S K W R • R B G S Z  
A O E U P

1 2 3 4 5 6 7 8 9  
S T P H • F P L T D  
S K W R • R B G S Z  
A O E U Q

1 2 3 4 5 6 7 8 9  
S T P H • F P L T D  
S K W R • R B G S Z  
A O E U R

1 2 3 4 5 6 7 8 9  
S T P H • F P L T D  
S K W R • R B G S Z  
A O E U S

1 2 3 4 5 6 7 8 9  
S T P H • F P L T D  
S K W R • R B G S Z  
A O E U T

1 2 3 4 5 6 7 8 9  
S T P H • F P L T D  
S K W R • R B G S Z  
A O E U U

1 2 3 4 5 6 7 8 9  
S T P H • F P L T D  
S K W R • R B G S Z  
A O E U V

1 2 3 4 5 6 7 8 9  
S T P H • F P L T D  
S K W R • R B G S Z  
A O E U W

1 2 3 4 5 6 7 8 9  
S T P H • F P L T D  
S K W R • R B G S Z  
A O E U X

1 2 3 4 5 6 7 8 9  
S T P H • F P L T D  
S K W R • R B G S Z  
A O E U Y

1 2 3 4 5 6 7 8 9  
S T P H • F P L T D  
S K W R • R B G S Z  
A O E U Z

Plover

<http://ploversteno.org>

# MORE CHORDS

## STENO ALPHABET


Plover

<http://ploversteno.org>

Ending	Steno	Example
st	FT	Fast (FAFT)
th	*T	Bath (PWA*T)
mp	*PL	Lamp (HRA*PL)
lk	*LG	Milk (PH*EULG)
ch / tch	FP	Catch, Screech
sh	RB	Cash
'shus' (tious / cious)	RBS	Precious
'shun' (tion / sion etc..)	GS	Fashion, Notion
'kshun' (ction)	BGS	Function, Auction (AUBGS)
rch / nch	FRPB	Perch, Bench
dge	PBLG	Edge
ds	DZ	Friends

# BRIEFS

'the': <b>-T</b>	'you're': <b>UR</b>	'very': <b>SRE</b>	'somebody': <b>S-B</b>	'describe': <b>SKREU</b>
'of': <b>F</b>	'you've': <b>UF</b>	'many': <b>PHAEPB</b>	'somehow': <b>SPHOU</b>	'described': <b>SKREUD</b>
'to': <b>TO</b>	'were': <b>WR</b>	'even': <b>AOEPB</b>	'someone': <b>SPH-PB</b>	'anything': <b>TPHEUG</b>
'in': <b>TPH</b>	'can': <b>K</b>	'where': <b>W-R</b>	'someplace': <b>SPHRAEUS</b>	'continue': <b>T-PB</b>
'a': <b>AEU</b>	'there': <b>THR</b>	'through': <b>THRU</b>	'something': <b>S-G</b>	'continued': <b>T-PBD</b>
'is': <b>S-</b>	'been': <b>PWPB</b>	'being': <b>-BG</b>	'sometimes': <b>STAOEUPLS</b>	'beginning': <b>TKPWEUPBG</b>
'that': <b>THA</b>	'if': <b>TP</b>	'because': <b>PWAUS</b>	'somewhere': <b>SWR</b> or <b>SW-R</b>	'understand': <b>URPBD</b>
'with': <b>W</b>	'would': <b>WO</b>	'before': <b>PW-F</b>	'question': <b>KWE</b>	'understanding': <b>URPBGD</b>
'be': <b>B</b>	'who': <b>WHO</b>	'upon': <b>POPB</b>	'almost': <b>HR-PL</b>	'today': <b>TOED</b>
'by': <b>PWEU</b>	'other': <b>OER</b>	'without': <b>WOUT</b>	'interest': <b>T-R</b> or <b>TR</b>	'opinion': <b>P-PB</b>
'he': <b>E</b>	'what': <b>WHA</b>	'another': <b>TPHOER</b>	'ever': <b>-FR</b>	'becomes': <b>PW-BGS</b>
'I': <b>EU</b>	'only': <b>OEPBL</b>	'against': <b>TKPWEPBS</b>	'became': <b>PWAEUPL</b>	'yes': <b>KWRE</b>
'this': <b>TH</b>	'do': <b>TKO</b>	'every': <b>EFR</b>	'probably': <b>PROBL</b>	'idea': <b>KWR-D</b>
'are': <b>R-</b>	'new': <b>TPHU</b>	'within': <b>W-PB</b>	'include': <b>KHRU</b>	'ideas': <b>KWR-DZ</b>
'which': <b>WEU</b>	'about': <b>PW</b>	'example': <b>KP-PL</b>	'includes': <b>KHRUS</b>	'actually': <b>TWAEUL</b>
'have': <b>SR</b>	'two': <b>TWO</b>	'others': <b>OERS</b>	'included': <b>KHRUD</b>	'move': <b>PHOF</b>
'they': <b>THE</b>	'any': <b>TPHEU</b>	'therefore': <b>THR-FR</b>	'including': <b>KHRUG</b>	'ask': <b>SK</b>
'you': <b>U</b>	'could': <b>KO</b>	'having': <b>SR-G</b>	'amount': <b>APLT</b>	'unless': <b>TPH-LS</b>
'you'd': <b>UD</b>	'after': <b>AF</b>	'become': <b>PW-BG</b>	'receive': <b>SAOEF</b>	'easy': <b>EZ</b>
'you'll': <b>UL</b>	'said': <b>SAEUD</b>	'whether': <b>WHR</b>	'received': <b>SAOEFD</b>	'otherwise': <b>O*ERZ</b>

# DICTIONARIES

gadget	retinol	swell	nah	hesitated	{^-stage}	cheap	code	fuseau	chooses	Wes
TKPWAGT	RET/TPHOL	SWEL	TPHA*	HES/TAEUT/-D	STA*EUPBLG	KHAEP	KOED	TPU/SO*E	KHAOFS	WES
mad	warmth	Rinconada		usk	gill	shelf	okayed	gowns	stenotype	refresh
PHAD	WARPLT	REUPB/KOPB/A/TKA		UFBG	TKPWEUL	SHEFL	OBGD	TKPWOU PBS	STEPB/TAOEUP	RE/TPRE
crimination	processing	{^ually}	which are	Buckley	threat	gram of	doable	oregano	Spock	enoug
KREUPLGS	PROEUG	WAE	KH-R	PWUBG/HREU	THRET	TKPWRAFPL	TKOBL	ORG/TPHOE	SPOBG	TPHU
blanks	tackled	manger		learn about	(inaudible)	prisms	taut	differentials		
PWHRA*PBG	TABG/*LD	PHAEUPB/SKWRER		PWHRERP	TPHAUBL	PREUFPLS	TA*UT	TKEUFRPBL/-S		KAUF
Combs	heads	looped	{#Alt_L(Right)}	tier	Streep	goods	right turn	staples	Gershwin	
KOEPLZ	HEDZ	HRAOPD	TPW-F	TAOER	STRAOEP	TKPWAODZ	R*T	STAEUPLS	TKPWERS/WEUPB	
consequential	more	thrills	tanker	{proteo^}	prying	stria		brine		c
KOPBS/KWEPBGS	PHOR	THREULS	TAPB/KER	PROET/KWROE	PRAOEU	STRAOE/KWRA		PWRAOEUPB		TKW

supercalifragilisticexpialidocious STPRAPBLG  
 Llanfairpwllgwyngyllgogerychwyrndrobwlllantysiliogogoch HRA\*PB/TPA\*EUR

4.2 million possible chords!

KO*LD	cold front
WA*RM	warm front
KLAED	cloudy
SAEN	sunny
KH*IL	chilly
SMAO*I	I-
KO*UN	County
DO*P	Doppler radar
GRAOEZ	degrees
GRAO*EZ	-degrees
KO*ELS	coastal
SPRINL	sprinkle
THORM	thunderstorm
STOIRM	stormy
RA*EN	rainy
GO*IS	gusty
WAEND	windy
MOIG	muggy
S*UNS	sunset
SPOIT	spotty
MOEFP	mother nature
KLAOIFP	climate change
GLOEBLG	global warming
TEFRPLT	temperature
MOENT	mountain
VA*EL	valley
OEVRNT	overnight
YORB	offshore
SUNS	sunshine
RAIFL	rainfall
DOURP	downpour

# DICTIONARIES



## QWERTY

b: go **B**ack one word

q: re**Q**ord  
ma**Q**ro?!

## STENO

GLERCH: Launch browser and perform Google search on text in clipboard

QUARN: Cut highlighted text and append to prespecified bug-tracking document

KO*LD	cold front
WA*RM	warm front
KLAED	cloudy
SAEN	sunny
KH*IL	chilly
SMAO*I	I-
KO*UN	County
DO*P	Doppler radar
GRAOEZ	degrees
GRAO*EZ	-degrees
KO*ELS	coastal
SPRINL	sprinkle
THORM	thunderstorm
STOIRM	stormy
RA*EN	rainy
GO*IS	gusty
WAEND	windy
MOIG	muggy
S*UNS	sunset
SPOIT	spotty
MOEFP	mother nature
KLAOIFP	climate change
GLOEBLG	global warming
TEFRPLT	temperature
MOENT	mountain
VA*EL	valley
OEVRNT	overnight
YORB	offshore
SUNS	sunshine
RAIFL	rainfall
DOURP	downpour

# THEORIES

StenEd®  
Realtime Theory

StarTran Realtime Theory  
The real choice for steno theory!



Phoenix Theory

## Phoenix Theory

Conventional theories conform steno strokes to vowel **spelling**: e.g., TERS, WORS, HERS, KURS, F\*IRS; FRONT, SHUNT; KA/NAL, KOM/PLAIN; KAUL, KOL/UM; TAIR, TER/EUBL; PAOER, PER/YOD; HOL/OE, SWAUL/OE.

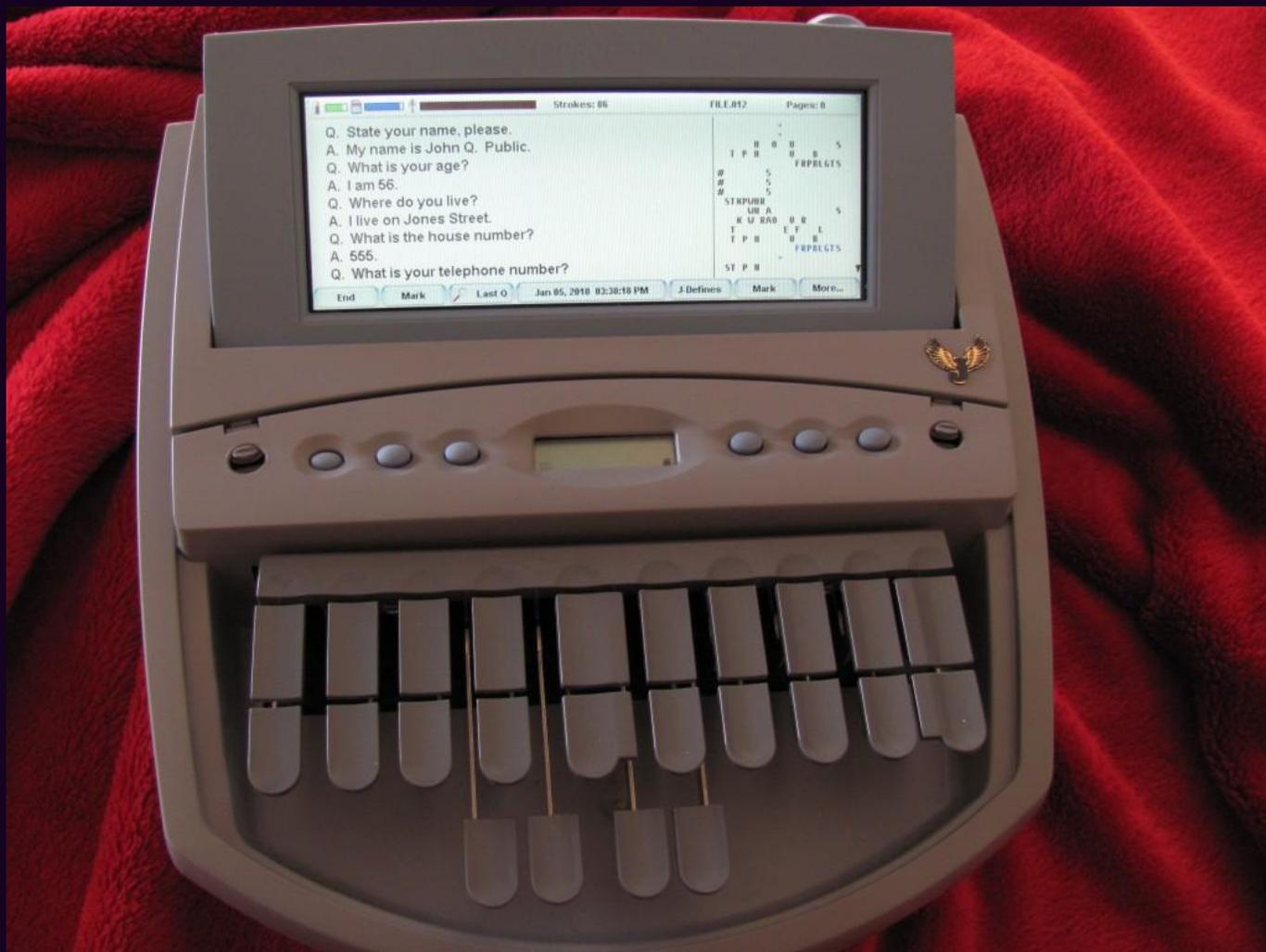
Phoenix Theory writes vowels by **sound**, regardless of spelling: TURS, WURS, HURS, KURS, F\*URS; FRUNT, SHUNT; KU/NAL, KUM/PLAIN; KAUL, KAUL/-M; TAIR, TAIRBL, PAOER, PAOER/Y-D; HAUL/OE, SWAUL/OE. (Note: Phoenix Theory uses AU for both the “au” and “aw” sounds. If you’d like to understand why, go to [www.phoenixtheory.com](http://www.phoenixtheory.com), home page, Site News, and click “AU vs. O.”)

The most-frequently-occurring vowel sound in **spoken** English is the schwa vowel sound (the soft, unstressed “uh” sound heard in *banana* [buh/NAN/uh], *canal* [kuh/NAL], *promote* [pruh/MOET], *collapse* [kuh/LAPS], etc.) Per Funk & Wagnall, the vast majority of all **ending** vowel-consonant syllables are correctly **pronounced** with a schwa vowel sound (e.g., *terrace* [TAIR/us], *villain* [VIL/un], *wallet* [WAUL/ut], *private* [PRIE/vut], *sandal* [SAND/ul], etc.).

Every English syllable includes a vowel sound. With very few exceptions, with conventional theories each steno stroke includes a vowel key or combination of vowel keys representing the **spelling** of the vowel, including the schwa vowel sound. However, the schwa vowel **sound** can be **spelled** 43 different ways! With conventional theories, unless the steno writer knows – and can recall at “on-the-job” speeds – the correct **vowel spelling**, their steno strokes will not match/translate against a spelling-dependent dictionary entry. Consequently, a dictionary entry for an **unfamiliar** word, or **any** word where the steno writer can’t recall with certainty at realtime speeds which of the 43 ways a schwa vowel sound is **spelled**, is useless.

Phoenix Theory eliminates this sound/spelling dilemma by: (1) Stroking all schwa vowel sounds as U. Consequently, writers can write all words they can **hear** (not just those they can spell) with steno which will match/translate realtime against a pre-programmed dictionary entry. (2) Applying a patented vowel-omission principle eliminating the schwa vowel preceding final-side consonants **from all but the first syllable/stroke** of a word, further reducing spelling dependency and appreciably “shortening” shorthand. (Every English syllable includes a vowel sound. When reading Phoenix Theory steno, when the vowel has been omitted from a stroke, verbalize the omitted vowel as “uh.”)

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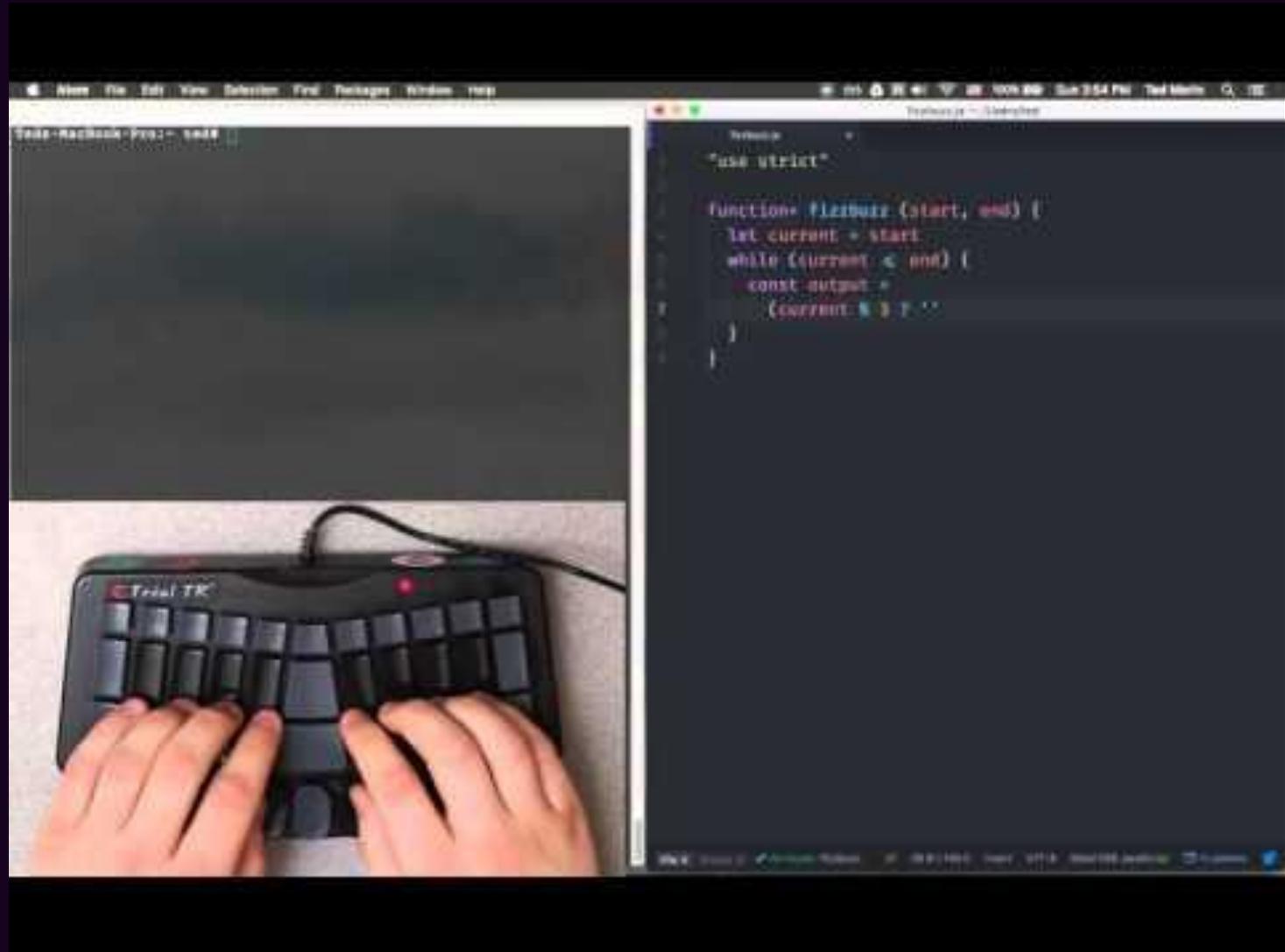
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<http://www.openstenoproject.org/demo/>



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