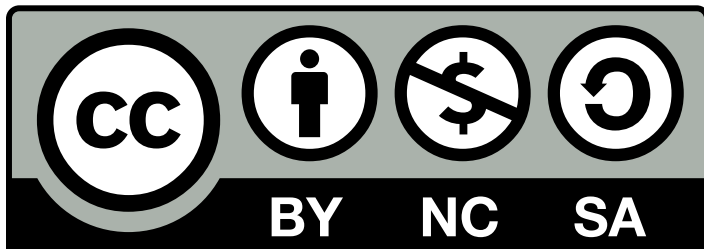


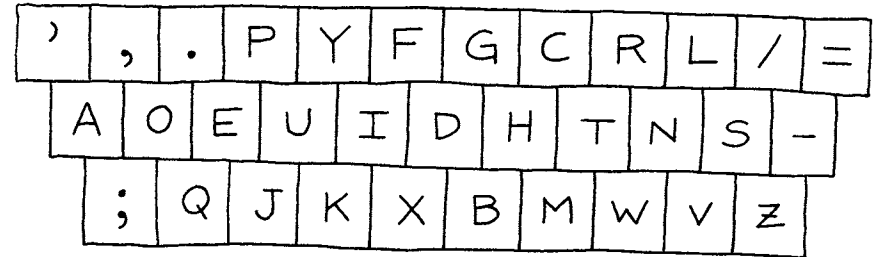
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Gabe Carleton-Barnes  
and Michael Cardiff  
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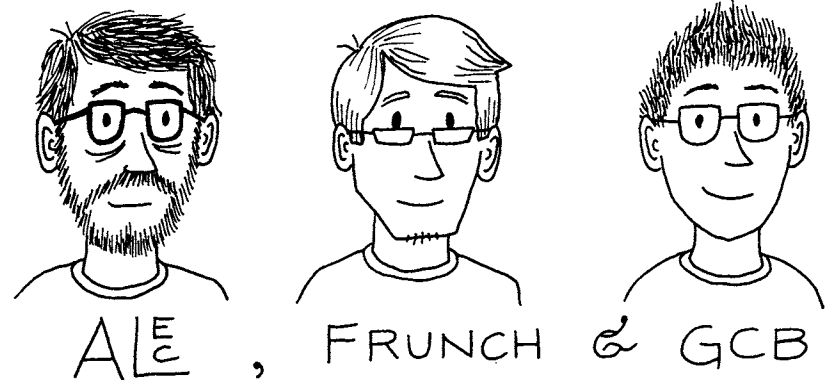


*The*  
**DVORAK**  
*Zine*

"CHANGING THE WORLD...  
ONE KEYBOARD AT A TIME!"



*Narrated by*



**FREE!** DVzine.org **STREET TEAM EDITION**

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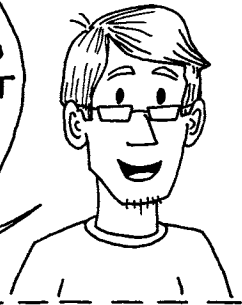
I'LL START BY TALKING ABOUT THE HISTORY OF THE **TYPEWRITER** AND HOW THE FIRST **KEYBOARD** WAS DEVELOPED.



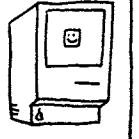
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DV

NEXT, I'LL EXPLAIN THE **DVORAK SIMPLIFIED KEYBOARD LAYOUT** AND SOME OF ITS BENEFITS!



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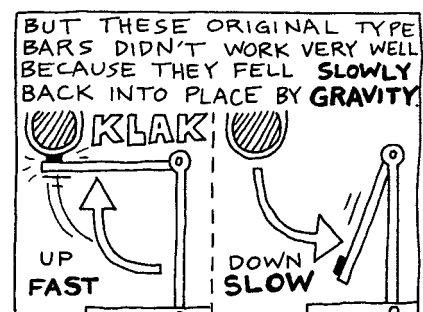
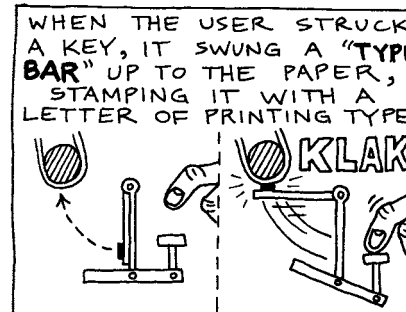
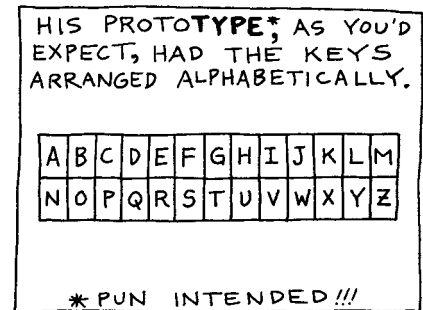
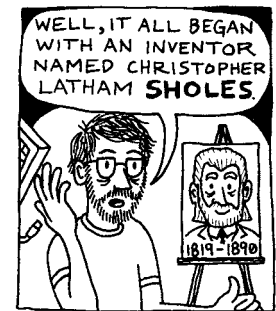
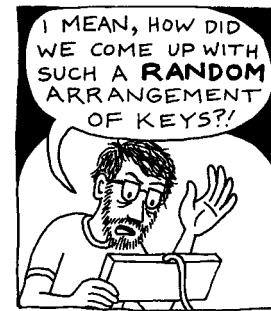
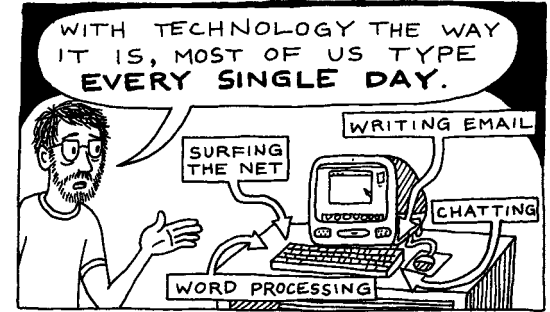
THEN I'LL GIVE YOU ALL THE INFORMATION YOU'LL NEED TO START TYPING **DVORAK TODAY!**



DVzine.org

TYPING TUTOR, HELP FILES, FAQs, TUTORIALS AND MUCH MUCH MORE!!!

"THE DVORAK ZINE" 2005 ALEC LONGSTRETH, FRUNCH (AKA MICHAEL CARDIFF) AND GABE CARLETON-BARNES. PLEASE READ, LEARN AND REDISTRIBUTE THIS ZINE! QUESTIONS/COMMENTS: DVzine@gmail.com



AS A RESULT, WHEN TWO NEIGHBORING KEYS WERE STRUCK IN RAPID SUCCESSION THE TYPEWRITER WOULD **JAM**.

**KLAK KLAK**

HMMM... THAT'S GOING TO BE A PROBLEM.

BUT INSTEAD OF IMPROVING THE TYPE BARS' LEVER DESIGN, SHOLES BECAME PREOCCUPIED WITH REARRANGING THE KEYS.

IF I CAN **SEPARATE** THESE KEYS ON THE KEYBOARD, THEY WON'T JAM!

THIS WAS CREATED...

THE SHOLES KEYBOARD LAYOUT

2	3	4	5	6	7	8	9	0	-	+	
Q	W	E	R	T	Y	U	I	O	P	{	}
A	S	D	F	G	H	J	K	L	;	"	'
Z	X	C	V	B	N	M	,	.	?		

ALSO KNOWN AS "QWERTY" (BECAUSE OF THE FIRST SIX LETTERS ON THE TOP ROW).

Q W E R T Y

EXCITED BY THE POTENTIAL OF HIS INVENTION, SHOLES ENLISTED THE HELP OF A MACHINIST, CARLOS GLIDDEN AND A BUSINESS MAN, JAMES DENSMORE.

GLIDDEN DENSMORE

THEIR **MAIN GOAL** FOR IMPROVING THE NEXT TYPEWRITER MODEL WAS TO **PHYSICALLY SEPARATE** KEYS THAT WERE FREQUENTLY STRUCK IN SEQUENCE.

NOW **HOLD ON** FOR A SECOND. I WANT TO REINFORCE SOMETHING HERE.

MOST QWERTY CRITICS WILL TELL YOU THAT SHOLES REARRANGED THE KEYBOARD TO **SLOW DOWN** "ALL THE PEOPLE" WHO WERE TYPING "TOO FAST."

**KLAK KLAK KLAK**

MYTHICAL ALPHABETICAL TYPIST

EVIL SHOLES

THIS'LL FIX 'EM!

DENSMORE'S BROTHER AMOS, AN EDUCATOR, PREPARED DATA ON COMMON LETTER PAIRS, OR "DIGRAPHS".

AS YOU CAN SEE HERE...

"WH" "AT" "AB" "AD" "ID" "EA"

USING THIS DATA, SHOLES MOVED THE KEYS AROUND **EXPERIMENTALLY** WHILE TRYING TO SEPARATE AS MANY DIGRAPHS AS POSSIBLE.

THIS IS KIND OF FUN!

TOTALLY RANDOM

EVEN I BELIEVED THIS BEFORE DOING THE RESEARCH FOR THIS ZINE:

CAN YOU **BELIEVE** THAT?! QWERTY IS DESIGNED TO BE **INEFFICIENT!!!**

BUT CHECK IT OUT, THERE **WERE** NO TYPISTS TO SLOW DOWN! SHOLES DEVELOPED QWERTY **BEFORE** TYPEWRITERS WERE EVEN AVAILABLE TO THE PUBLIC!

HE DECIDED HIS NEW KEYBOARD WOULD NOT NEED A NUMBER **1** KEY

THEY CAN JUST TYPE AN **1** INSTEAD!

AND SUPPOSEDLY DENSMORE SUGGESTED HE PUT ALL THE LETTERS IN THE WORD "TYPEWRITER" ON THE TOP ROW.

HA HA! GOOD IDEA!

IT'LL AID THE **SALESMEN** LATER ON...

I DON'T THINK **ANY** INVENTOR WOULD WANT TO MAKE THEIR INVENTION **WORSE**.

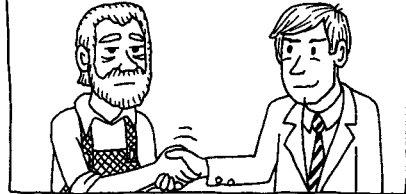
WHEN SHOLES REARRANGED THE KEYS HE DIDN'T **ELIMINATE** THE JAMMING PROBLEM BUT HE **GREATLY** REDUCED IT.

ENOUGH SO, THAT HIS INVENTION COULD NOW ACTUALLY BE USED TO **TYPE!**

WITH THE COMPLETION OF THE NEW PROTOTYPE, SHOLES'S TEAM TURNED FROM DESIGN TO PRODUCTION.



BUT SHOLES WAS NO BUSINESS MAN, SO AFTER FIVE YEARS OF WORKING ON THE TYPEWRITER HE SOLD ALL HIS RIGHTS TO DENSMORE.



BUT THEN, IN 1878 THE REMINGTON NUMBER TWO WAS RELEASED!



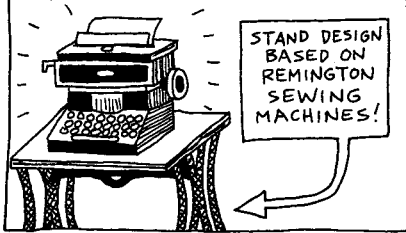
THE NO.2 HAD LOTS OF IMPROVEMENTS, INCLUDING THE ABILITY TO SEE WHAT YOU WERE TYPING!



DENSMORE WENT STRAIGHT TO REMINGTON, THE FAMOUS GUN MANUFACTURER



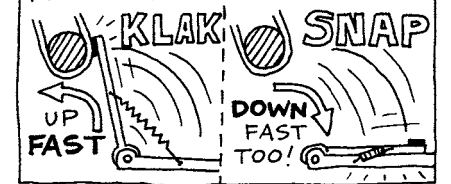
AND SO, IN 1873 THE "SHOLES & GLIDDEN TYPEWRITER" WAS RELEASED TO THE PUBLIC



THE NO.2 ALSO INTRODUCED THE SHIFT KEY, ALLOWING UPPER AND LOWER CASE LETTERS. THE NO.2 ALSO REINCORPORATED THE NUMBER 1 KEY.



MOST IMPORTANTLY THOUGH, THE NO.2 HAD SPRING MOUNTED TYPE BARS WHICH QUICKLY SNAPPED BACK INTO PLACE AFTER TYPING.



THESE FIRST TYPEWRITERS WERE PRETTY AWKWARD TO USE.



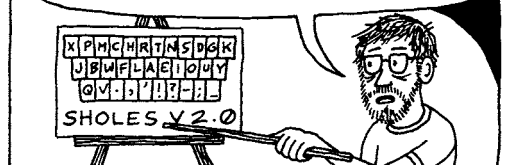
THE TYPE BARS STRUCK THE PAPER FROM UNDERNEATH, SO YOU COULDN'T EVEN SEE WHAT YOU WERE TYPING!



THIS ELIMINATED KEY JAMS FOR ALL BUT THE FASTEST TYPER!



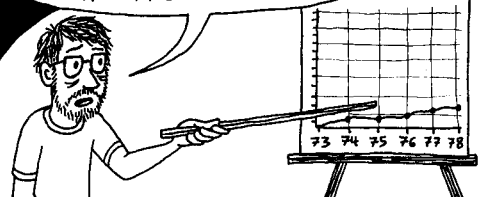
AND SINCE HIS ORIGINAL LAYOUT WAS DEVELOPED TO COMBAT THAT VERY PROBLEM, SHOLES NOW DESIGNED A NEW, MORE LOGICAL LAYOUT.



AS A RESULT, THE FIRST TYPEWRITER DID NOT SELL VERY WELL.



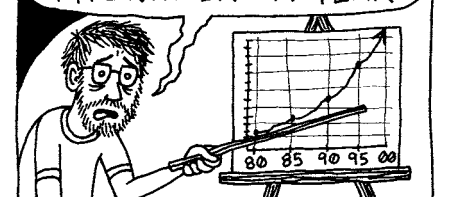
FROM 1873 TO 1878 REMINGTON ONLY SOLD 5,000 TYPEWRITERS IN THE U.S.A.

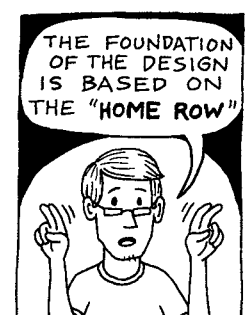
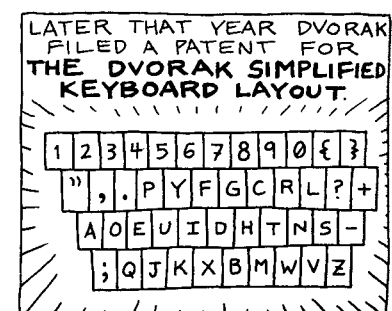
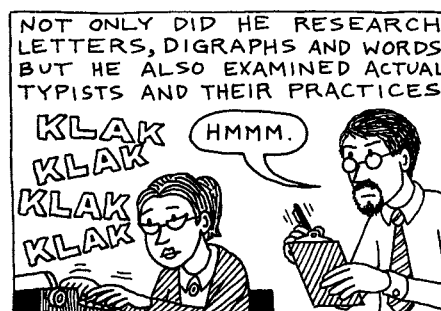
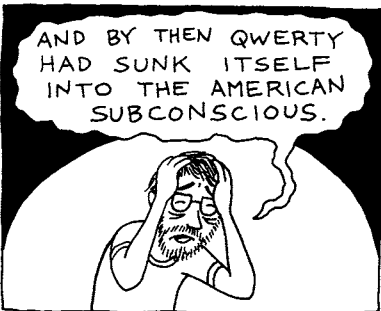
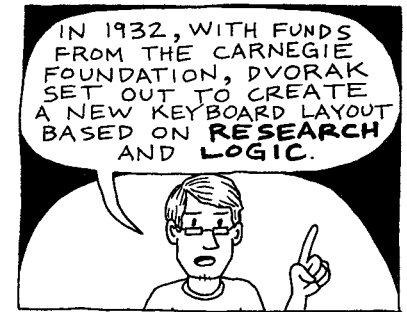
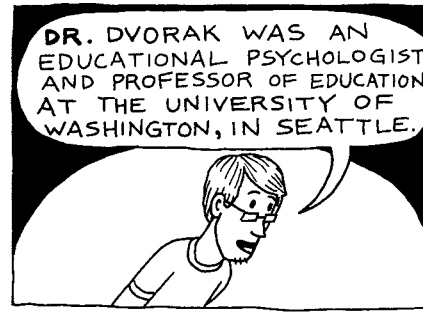
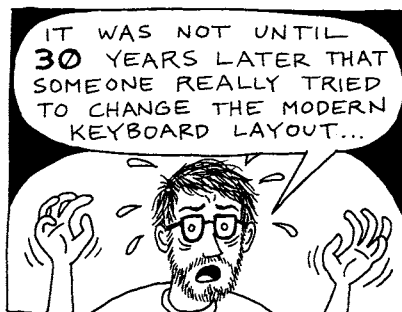
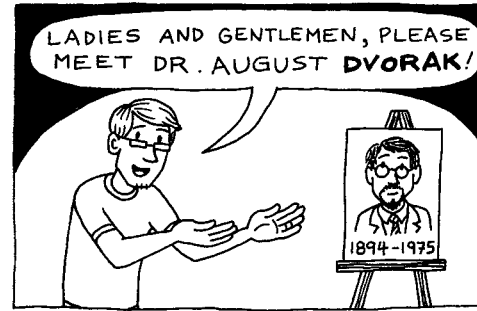
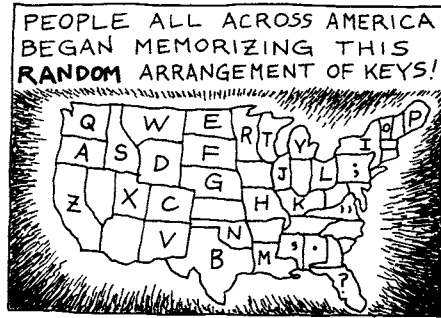


BUT SHOLES FOUND THAT REMINGTON HAD NO DESIRE TO ALTER HIS OLD INVENTION



YOU SEE, BY 1900 REMINGTON WAS SELLING 100,000 TYPEWRITERS A YEAR.





THE "HOME ROW" IS THE ROW OF KEYS THAT THE TYPIST'S FINGERS ARE OVER IN THE RESTING POSITION.

FINGERS START HERE

THE TYPIST THEN "REACHES OUT" FROM THE HOME ROW TO STRIKE THE OTHER "OUTER KEYS"

RESTING REACHING

IN FACT, IF YOU USE ONLY THE LETTERS ON THE DVORAK HOME ROW, YOU CAN TYPE MORE THAN 3,000 WORDS!

DV

WITH THE QWERTY HOME ROW YOU CAN ONLY TYPE ABOUT 300 WORDS.

Q

IF YOU ARE TYPING QWERTY ONLY 31% OF YOUR KEY STROKES ARE ON THE HOME ROW.

HOME ROW 31% OTHER KEYS 69%

WITH DVORAK THOUGH, 70% OF YOUR KEY STROKES ARE ON THE HOME ROW!

HOME ROW 70% OTHER KEYS 30%

HOW IS THAT POSSIBLE?

SEE, THERE IS ONLY ONE VOWEL ON THE QWERTY HOME ROW.

A S D F G H J K L ;

AND SEMI COLON IS ON THE HOME ROW!!?

ALEC?!

WELL, AS YOU KNOW, QWERTY WAS DEVELOPED EXPERIMENTALLY TO OVERCOME MECHANICAL PROBLEMS, SO THE HOME ROW IS JUST AS RANDOM AS THE REST OF THE LAYOUT!

THERE! THAT OUGHT TO BE GOOD ENOUGH FOR NOW.

DVORAK HOWEVER, PUT A GREAT DEAL OF THOUGHT INTO THE DESIGN OF HIS HOME ROW.

NOW LET'S SEE...WHICH LETTERS ARE USED THE MOST?

WELL I MEAN, COME ON! HOW OFTEN DO YOU TYPE A SEMI COLON ??? IT'S A WASTED KEY! ON THE HOME ROW NO LESS!

ALEC.

SIGH

OKAY, OKAY. SORRY I INTERRUPTED.

DVORAK PUT ALL OF THE MOST COMMONLY TYPED CONSONANTS ON THE HOME ROW, AS WELL AS ALL OF THE VOWELS.

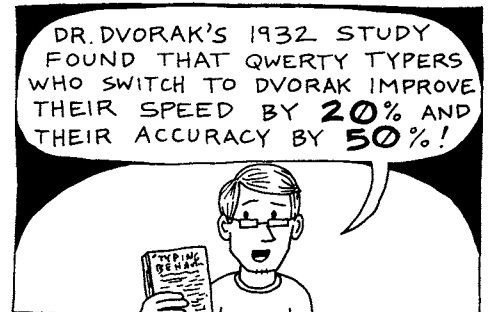
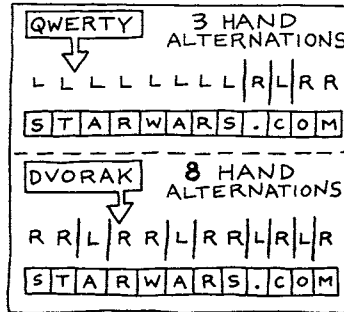
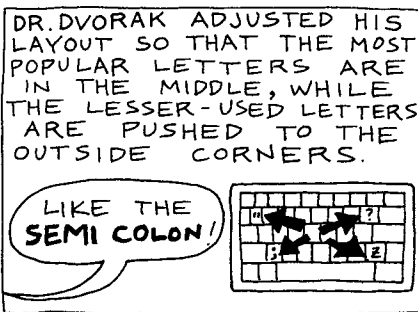
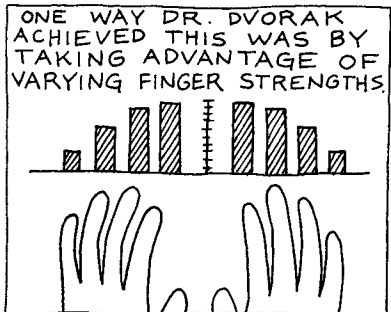
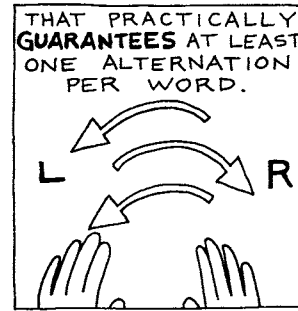
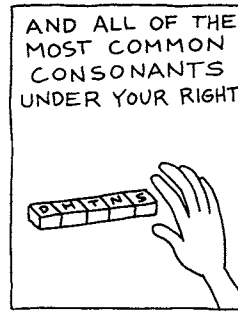
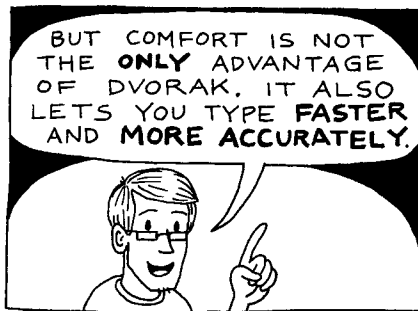
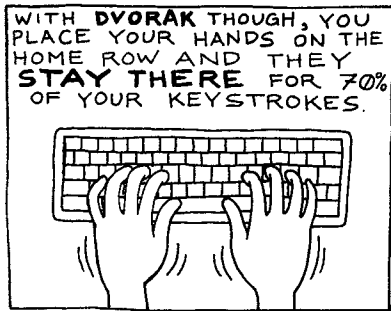
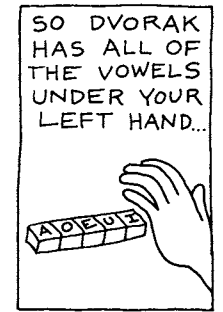
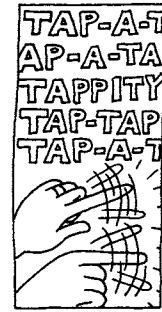
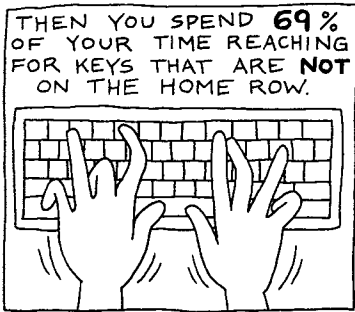
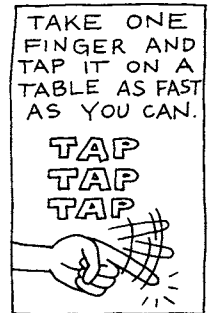
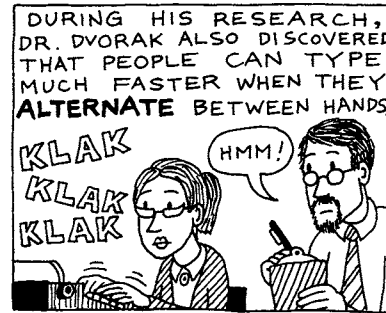
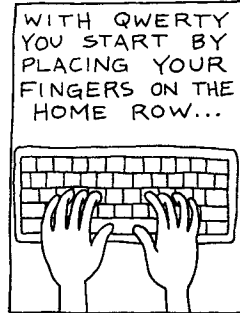
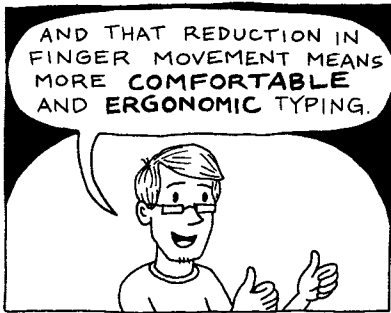
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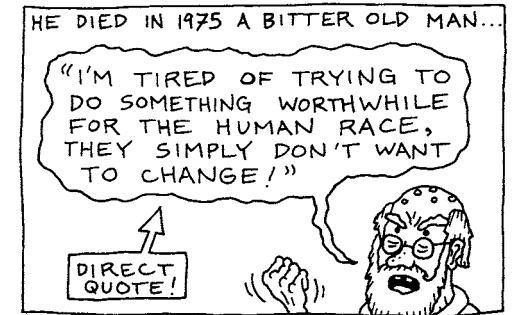
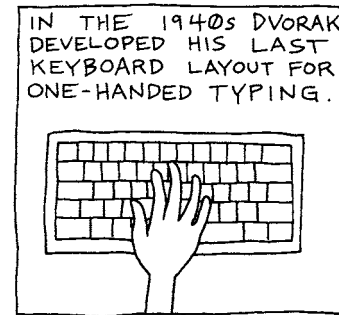
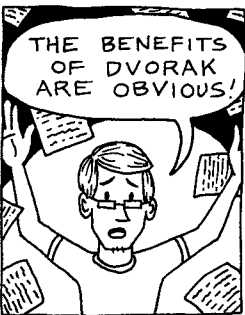
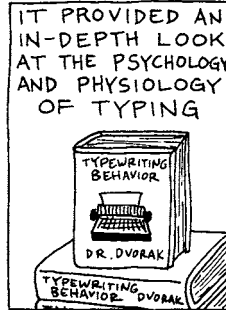
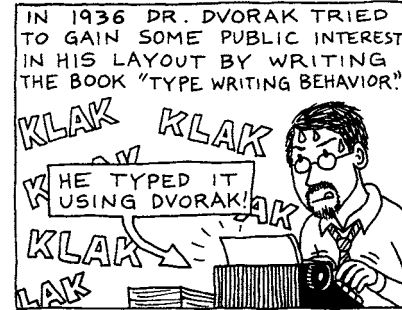
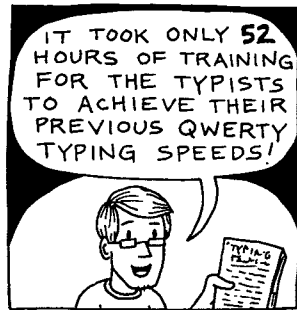
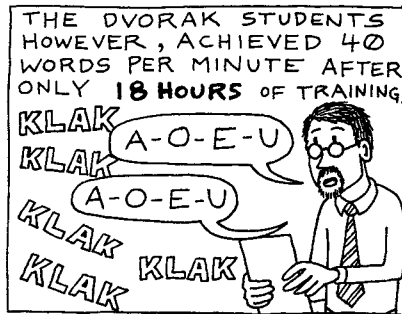
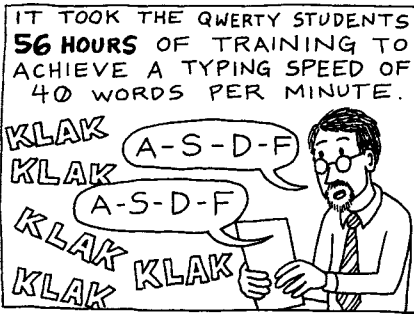
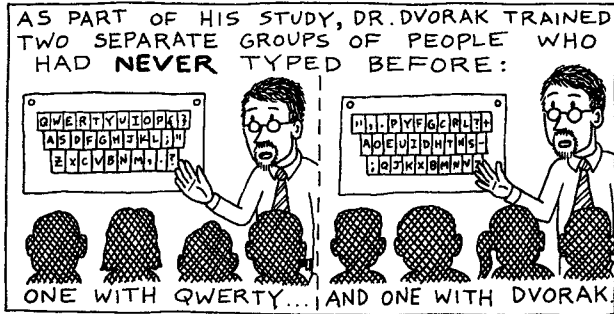
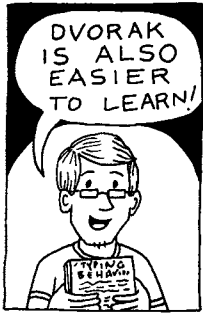
THIS WAS SMART BECAUSE EVERY WORD HAS AT LEAST ONE VOWEL IN IT!

COUGH NOW WHERE WAS I?

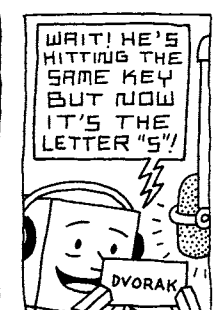
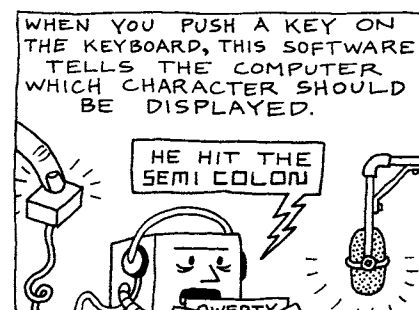
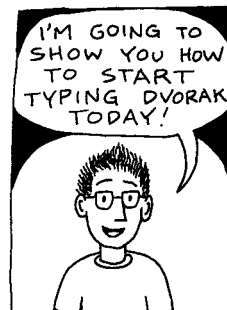
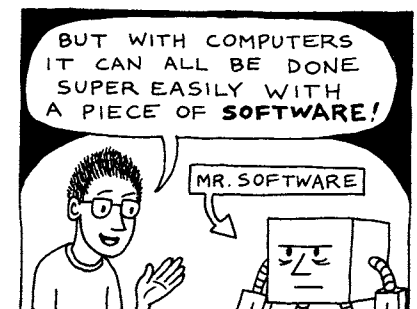
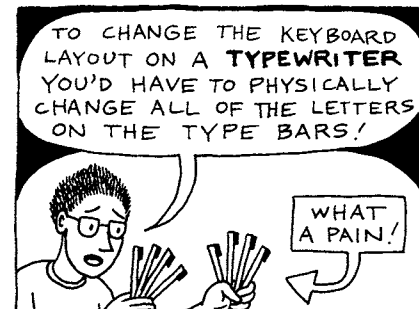
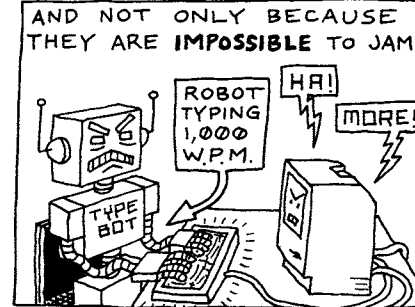
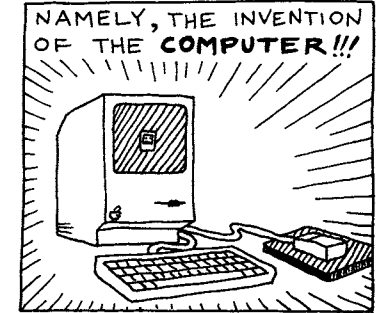
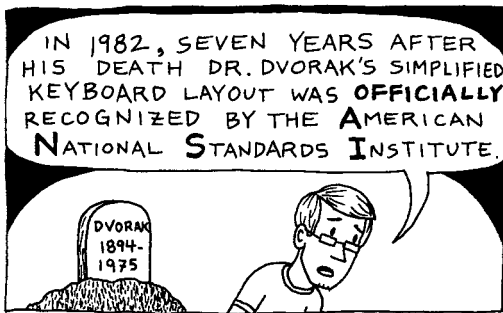
OH, RIGHT! THE HOME ROW.

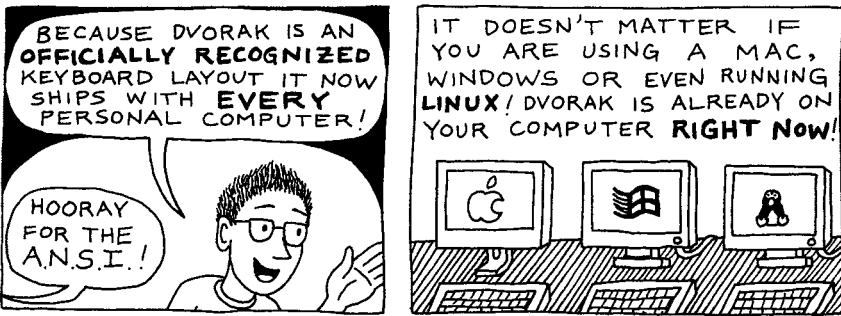
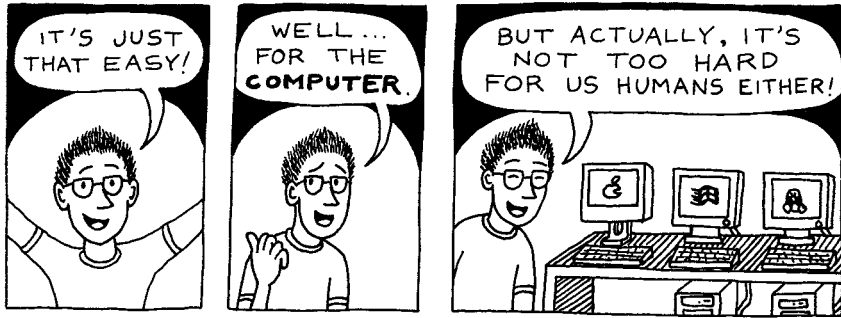
WELL, BY KEEPING 70% OF THE KEYSTROKES ON THE HOME ROW, DVORAK REDUCES FINGER MOVEMENT BY A FACTOR OF THREE!











# IF YOU USE WINDOWS

USE THESE DIRECTIONS.

**USING WINDOWS XP...**

- 1 CLICK ON "START" AND FIND THE "CONTROL PANEL" UNDER "SETTINGS."
- 2 SELECT THE "REGIONAL" CONTROL PANEL.
- 3 IN THE "LANGUAGES" TAB CLICK THE "DETAILS" BUTTON.
- 4 THEN CLICK "ADD" AND SELECT DVORAK FROM THE OPTIONS.
- 5 HIT "APPLY" AND "OK" AND A BLUE ICON WILL APPEAR BY YOUR CLOCK WHICH LETS YOU SWITCH FROM QWERTY TO DVORAK.

**OR, USING OLDER WINDOWS VERSIONS...**

FIRST FOLLOW STEP 1 FOR WINDOWS XP AND FIND THE "KEYBOARD" CONTROL PANEL

- 1 FOR WINDOWS XP AND FIND THE "KEYBOARD" CONTROL PANEL
- 2 IN THE "LANGUAGES" TAB CLICK "ADD."
- 3 YOU CAN CHOOSE ANY LANGUAGE (WE USE DANISH!) JUST MAKE SURE YOU SET THE "PROPERTIES" TO "UNITED STATES-DVORAK"
- 5 FOR WINDOWS XP AND YOU'RE ALL SET!

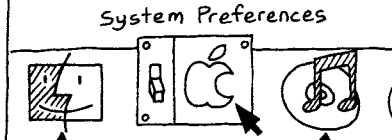
**ALSO:** IN WINDOWS YOU CAN SET UP ALT + SHIFT TO TOGGLE BETWEEN DVORAK AND QWERTY.

# IF YOU USE A MAC

USE THESE DIRECTIONS!

## USING MAC OS X...

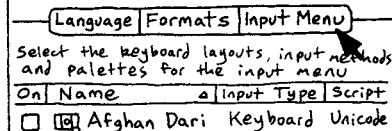
1 SELECT "SYSTEM PREFERENCES" FROM THE DOCK.



2 NEXT, SELECT THE "INTERNATIONAL" ICON.



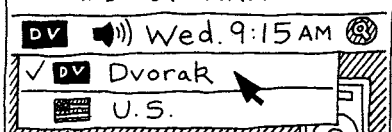
3 UNDER THE "INPUT MENU" TAB YOU WILL FIND A WHOLE SLEW OF LAYOUTS.



4 SELECT "DVORAK" AND YOU ARE ALL SET!

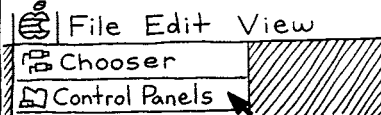


5 A SMALL MENU WILL APPEAR UP NEXT TO YOUR CLOCK. YOU CAN USE IT TO SWITCH BETWEEN QWERTY AND DVORAK.

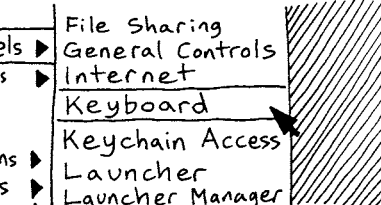


## OR, USING OLDER MAC OS VERSIONS...

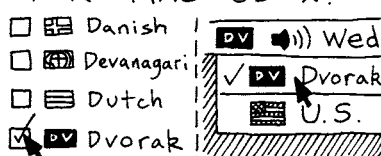
1 IN THE APPLE MENU FIND THE "CONTROL PANELS"




2 SELECT THE "KEYBOARD" CONTROL PANEL.



THEN FOLLOW STEPS 3, 4 & 5 FOR MAC OS X!



ALSO: WITH MACS YOU CAN SET UP **OPTION + ⌘ + SPACE** TO TOGGLE BETWEEN DVORAK AND QWERTY.



# IF YOU USE LINUX

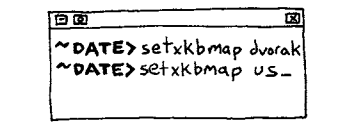
... YOU'RE AWESOME !!!

THERE ARE LOTS OF WAYS TO SET UP DVORAK IN LINUX. HERE'S ONE SIMPLE METHOD...

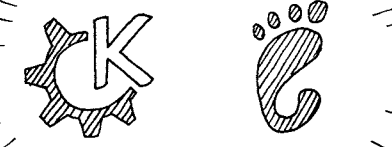


IN XWINDOWS, RUN "SETXKBMAP DVORAK" AND "SETXKBMAP US" TO SWITCH BACK AND FORTH

```
~DATE> setxkbmap dvorak
~DATE> setxkbmap us_
```



BOTH KDE AND GNOME HAVE EASY KEYBOARD SWITCHING FUNCTIONS. CHECK THEM OUT!



OKAY! PFEW! DID EVERYONE MAKE IT?




IF NOT, PLEASE FEEL FREE TO EMAIL ME WITH ANY QUESTIONS ABOUT SETTING UP DVORAK ON YOUR COMPUTER!

[DVzine@gmail.com](mailto:DVzine@gmail.com)



HOW'S THAT FOR PERSONAL ATTENTION?



OKAY!


CLAP!

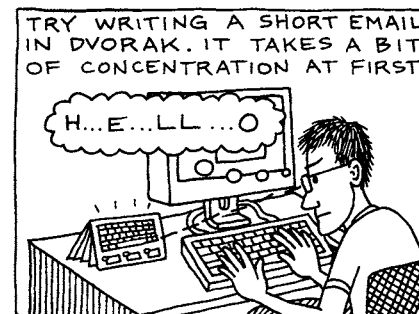
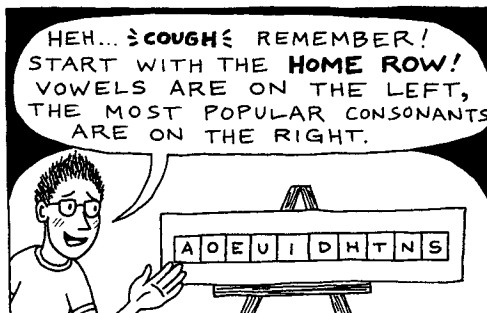
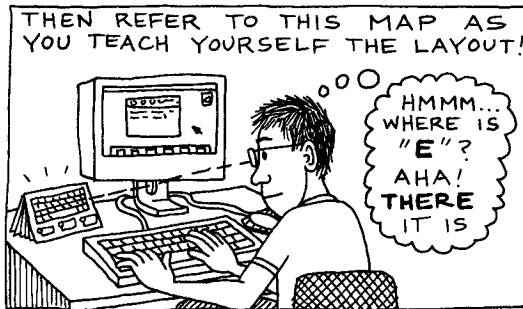
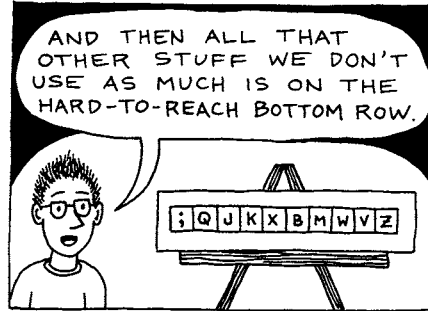
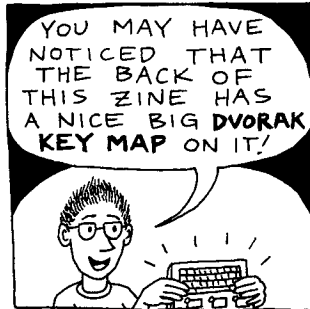
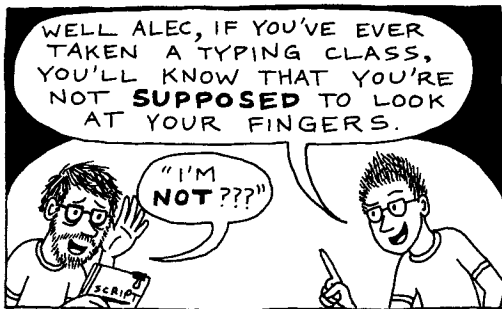
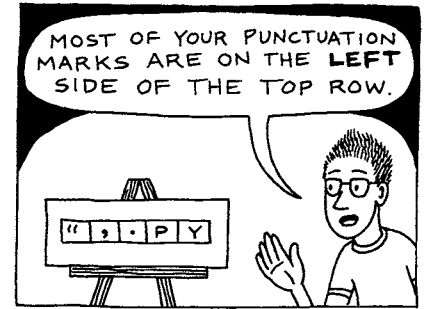
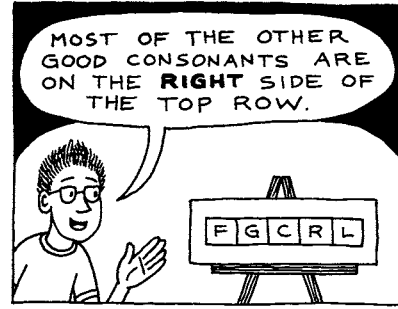
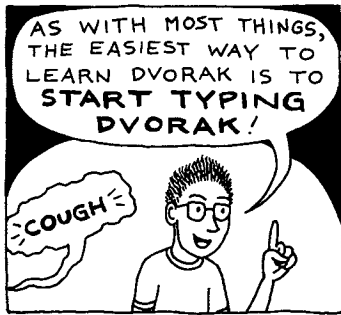


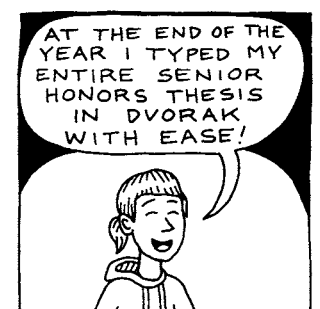
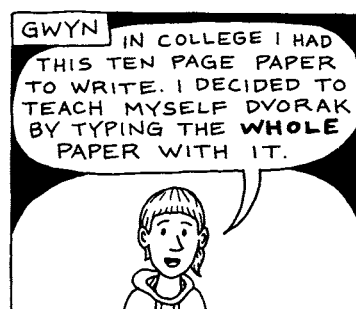
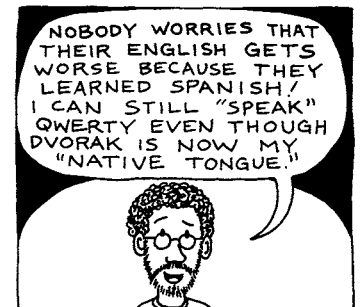
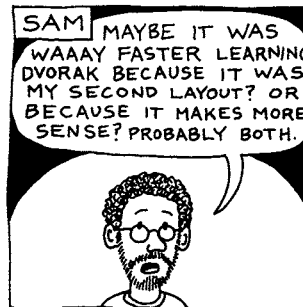
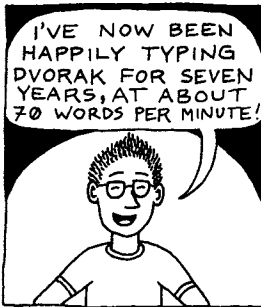
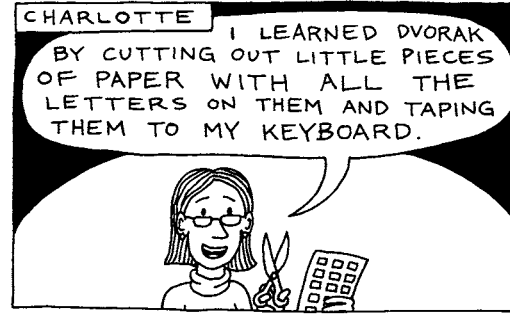
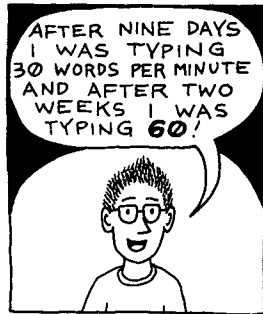
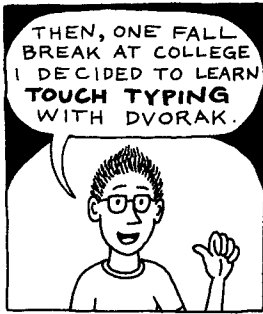
YOU NOW KNOW WHY IT'S AWESOME AND YOU'VE GOT IT ALL SET UP ON YOUR COMPUTER...

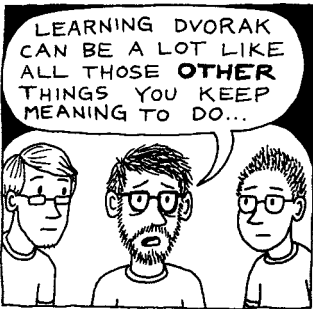


NOW IT'S TIME TO TYPE SOME DVORAK!









DVzine@gmail.com

PLEASE CONTACT US IF YOU HAVE ANY QUESTIONS ABOUT LEARNING DVORAK. ALSO, WE'D LOVE TO HEAR YOUR STORIES ABOUT LEARNING AND TYPING DVORAK!

www.DVzine.org

TYPING TUTORS, HELP FILES, FAQs, TUTORIALS AND MUCH MORE TO HELP YOU SET UP AND LEARN DVORAK. ALSO ORDERING AND DISTRIBUTION INFORMATION!

# THANKS

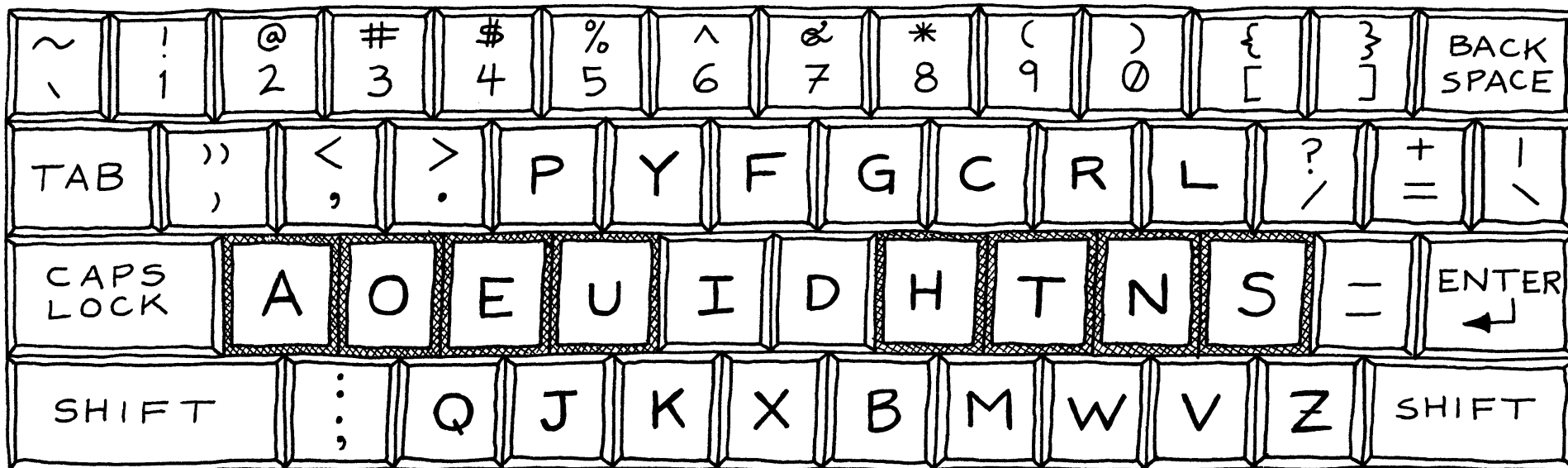
CHARLOTTE PHILLIPS, SAM GREENBERG, PETE LYONS, GWYN HUGHES, MARTHA STEWART LIVING OMNIMEDIA, NEWSWEEK, PHASE SEVEN COMICS, AARON RENIER, THE INTERNET AND GOOGLE.



DEDICATED TO DR. AUGUST DVORAK 1894 - 1975

# CITATIONS

- 1:5 - <http://www.mytypewriter.com/generic.jhtml?pid=31>
- 1:6 - U.S. Patent # 79265 <http://patft.uspto.gov/netahtml/search-bool.html>
- 1:7 - [http://www.typewritermuseum.org/history/inventors\\_sholes.html#](http://www.typewritermuseum.org/history/inventors_sholes.html#)
- 2:3 - <http://www.library.wisc.edu/etext/WIReader/Images/WER1386.html>
- 2:5 - <http://www.myschoolonline.com/page/0,1871,45615-174025-48-11069,00.html>
- 2:7 - [http://www.officemuseum.com/1874\\_Sholes\\_Glidden\\_NMAH-51-0M.jpg](http://www.officemuseum.com/1874_Sholes_Glidden_NMAH-51-0M.jpg)
- 2:8 - <http://www.maxmon.com/1874ad.htm>
- 4:4 - <http://home.earthlink.net/~dcrohr/IMAGES/sgtreadlesm.jpeg>
- 4:6 - <http://en.wikipedia.org/wiki/Typewriter>
- 4:8 - <http://home.earthlink.net/~dcrohr/firsttw.html>
- 5:1-5:4 - see 4.8
- 5:6 - <http://www.mwbrooks.com/dvorak/dissent.html#sholes>
- 5:8 - <http://www.officemuseum.com/typewriters.htm>
- 7:1-7:2 - [http://en.wikipedia.org/wiki/August\\_Dvorak](http://en.wikipedia.org/wiki/August_Dvorak)
- 7:3-7:5 - Typewriting Behavior by August Dvorak, American Book Company, New York, 1936.
- 7:6 - U.S. Patent # 2,040,248 (see link from 1:6)
- 8:3-8:4 - Cryptanalysis by H.F. Gaines, Dover, New York, 1956.
- 9:1-9:2,9:9 - <http://www.maxmon.com/1936ad.htm>
- 10:5 - <http://www.mit.edu:8001/people/jcb/dvorak/>
- 10:9 - "The Dvorak Simplified Keyboard: Forty Years of Frustration" by Robert Parkinson Computers and Automation Magazine November 1972, pp. 18-25.
- 11:1 - see 10:9 / 11:12 - see 9:1-9:2,9:9
- 12:3-12:4 - "The Curse of QWERTY" by Jared Diamond, Discover Magazine Vol, 18 No. 4 April 1997
- 12:6 - see 10:5 / 13:2-13:4 see 10:9
- 13:8 - <http://www.dati.org/newsletter/issues/1996n5/Typing2.html>
- 13:5 - see 7:3-7:5 / 13:9 - see 12:3-12:4
- 14:1 - [http://en.wikipedia.org/wiki/Dvorak\\_simplified\\_keyboard](http://en.wikipedia.org/wiki/Dvorak_simplified_keyboard)



# The Dvorak Simplified Keyboard!!!

① STAND THIS ZINE UP LIKE A **TENT** NEXT TO YOUR COMPUTER.

② REFER TO THE KEY-MAP ABOVE AS YOU LEARN TO TYPE DVORAK!

③ VISIT OUR SITE:

## DVzine.org

FOR TYPING TUTOR, HELP FILES, FAQs, TUTORIALS AND MUCH MUCH **MORE!!!**

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