Universal Multiple-Octet Coded Character Set
International Organization for Standardization
Organisation Internationale de Normalisation
Международная организация по стандартизации

1. Introduction to Unifon. Unifon was developed as an auxiliary "phonetic" alphabet designed to facilitate access to literacy to English-speaking children, by presenting to them a writing system that worked by sound. Tests showed that children were able to learn to read rather quickly using this system, and, having made that breakthrough, were able to transition to traditional English orthography relatively easily. Unifon was developed in the 1950s by Dr John R. Malone, an economist and newspaper equipment consultant who became interested in phonetic writing while consulting with the Bendix Corporation, which was interested in questions of aviation communication. That work was abandoned when the International Air Transport Association selected English as the language of international airline communications in 1957. But Malone's interest in phonetic writing resurfaced when his young son complained about difficulties learning to read. From about 1960 to the 1980s, Margaret S. Ratz used Unifon to teach first-graders at Principia College in Elsah, Illinois. A variety of teaching materials exist using Unifon. From the 1974 to his death in 1993 John M. Culkin, a specialist in media studies, also promoted Unifon.

Of greater significance is the use made of Unifon in the 1970s and 1980s to write Native American languages. Unifon was adapted principally by Tom Parsons of Humboldt State University to provide a practical orthography for several the Hupa, Yurok, Tolowa, and Karok languages. These orthographies were used for a nunber of years and although other orthographies are used for these languages now, many valuable documents using Unifon exist which should be able to take advantage of UCS encoding.

2. Structure. Unifon is a bicameral script written left to right. Most Unifon text is written in all caps, but the system as developed and described does permit the use of casing pairs. The fundamental question is the relation between Unifon and the Latin script. Unifon uses 40 characters when used for writing English; a number of additional characters were used for the Native American languages, and a few characters were used in earlier versions of Unifon but were later replaced by other characters.

3. Encoding model. There are two possibilities for encoding Unifon. One is to treat it as a separate script like Lisu. The other is to treat it as a set of Latin extensions. If the former option is chosen, a set of capital and a set of small letters will need to be encoded: there is considerable overlap between many of these letters and the Latin script (like AΛBƐDEƎFGHIJKLMNOPRSTUVWYZ). If the latter option is chosen, two things have to be taken into consideration. The first is that a large number of Unifon characters should be unified with existing Latin characters (as shown just above). The

second is that it needs to be recognized that when Unifon is used as a casing script, it is always intended to be displayed as styled text, THAT IS, IN SMALL-CAPS. This has some implications for the design of lower-case letters for the code charts, but that should not be particularly problematic if standard design principles are applied.

4. Combining diacritical marks. Generic diacritical marks are used in Unifon orthography. In Tolowa, U+0301 COMBINING ACUTE ACCENT is used to indicate stress, and both U+0304 COMBINING MACRON and U+0331 COMBINING MACRON BELOW are used to "harden" and "soften" the sound made by X [x].

5. Glyphs. The 40 basic Unifon letters as used for English phonemes are as follows:

AⳁΛBȻDEƵRFGHIⱢJKLMNⱰOꝖⱣꝘ⊖PRSȘTꞪHUⱲVWƧYZ

The 33-letter alphabet used for Hupa was as follows:

ΛⳁBCⱰDEIJGHⱵⳐKLMNOꝖⱣꝘGⱰⱰSTUⱲWYꞪXZX̄

The 26-letter alphabet used for Karuk was as follows:

AⳁCⱰIFHⱵⳐKMNOꝖPⱣRSTⱺUⱲVWYX

The 30-letter alphabet used for Tolowa was as follows:

ꞪXBCⱰDEIGHⱵⳐJKLMNⱰOꝖⱣꝘGIPRSTUⱲWY

A 32-letter alphabet used for Yurok was as follows:

AⳁΛCⱰEIƎGHⱵⳐKLMNOꝖⱣꝘGIPRSTUⱲWYꞪXX̄

A 42-letter "Indian Unifon Single-Sound Alphabet" is given as follows:

ꞪXAⳁΛBCⱰDEIƎFGHⱵⳐJKLMNⱰOꝖⱣꝘGIPRSTⱺⱢUⱲⱲVWƧYZ

A number of other letters (not listed in the alphabets above) derive from earlier versions of Unifon:

ꓬIØⱠⱠ

6. Issues. In this preliminary proposal I have left open the question as to whether Unifon should be encoded as a unique script or as a set of extensions to Latin. If the latter, a unification exercise will have to be undertaken, and then capital and small letters will need to be encoded. Overunification with existing letters should be avoided, since some Unifon characters have superficial resemblances to existing characters but the usual shapes of those would not be acceptable in Unifon and the usual Unifon shapes would not be acceptable to users of those existing characters. UTC and National Body feedback is invited. The code chart below gives the Unifon characters seen as a character set of its own.

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	E88	E89	E8A	E8B	E8C	E8D	E8E	E8F
0	A E880	L E890	U E8A0	Ө E8B0	A E8C0	L E8D0	U E8E0	Ө E8F0
1	Δ E881	M E891	Ա E8A1	Ħ E8B1	Δ E8C1	M E8D1	Ա E8E1	Ħ E8F1
2	Λ E882	N E892	Ū E8A2	Ⱳ E8B2	Λ E8C2	N E8D2	Ū E8E2	Ⱳ E8F2
3	B E883	Ѵ E893	V E8A3	X E8B3	B E8C3	Ѵ E8D3	V E8E3	X E8F3
4	Ȼ E884	O E894	W E8A4	Ч E8B4	Ȼ E8C4	O E8D4	W E8E4	Ч E8F4
5	D E885	Ω E895	Ƶ E8A5	I E8B5	D E8C5	Ω E8D5	Ƶ E8E5	I E8F5
6	E E886	Ф E896	Y E8A6	Ø E8B6	E E8C6	Ф E8D6	Y E8E6	Ø E8F6
7	Ɨ E887	Ɵ E897	Ƶ E8A7	ſ E8B7	Ɨ E8C7	Ɵ E8D7	Ƶ E8E7	ſ E8F7
8	Ꝝ E888	Ꝋ E898	C E8A8	Ӿ E8B8	Ꝝ E8C8	Ꝋ E8D8	C E8E8	Ӿ E8F8
9	F E889	P E899	Ͻ E8A9	 E8B9	F E8C9	P E8D9	Ͻ E8E9	 E8F9
A	G E88A	R E89A	Ǝ E8AA	 E8BA	G E8CA	R E8DA	Ǝ E8EA	 E8FA
B	H E88B	S E89B	҂ E8AB	 E8BB	H E8CB	S E8DB	҂ E8EB	 E8FB
C	Ɪ E88C	Ȿ E89C	ᑐ E8AC	Ħ E8BC	Ɪ E8CC	Ȿ E8DC	ᑐ E8EC	Ħ E8FC
D	± E88D	T E89D	Ł E8AD	K̄ E8BD	± E8CD	T E8DD	Ł E8ED	K̄ E8FD
E	J E88E	ħ E89E	Ꝺ E8AE	X̄ E8BE	J E8CE	ħ E8DE	Ꝺ E8EE	X̄ E8FE
F	K E88F	Ƕ E89F	⊥ E8AF	X̲ E8BF	K E8CF	Ƕ E8DF	⊥ E8EF	X̲ E8FF

Capital letters

E880	A	UNIFON CAPITAL LETTER ADD
E881	Δ	UNIFON CAPITAL LETTER ALE
E882	Λ	UNIFON CAPITAL LETTER ALL
E883	B	UNIFON CAPITAL LETTER BAN
E884	Ȼ	UNIFON CAPITAL LETTER CHUM
E885	D	UNIFON CAPITAL LETTER DIG
E886	E	UNIFON CAPITAL LETTER EVERY
E887	Ɇ	UNIFON CAPITAL LETTER EVIL
E888	Ɽ	UNIFON CAPITAL LETTER HER
E889	F	UNIFON CAPITAL LETTER FLY
E88A	G	UNIFON CAPITAL LETTER GO
E88B	H	UNIFON CAPITAL LETTER HOME
E88C	I	UNIFON CAPITAL LETTER IT
E88D	Ɨ	UNIFON CAPITAL LETTER ICE
E88E	J	UNIFON CAPITAL LETTER JAM
E88F	K	UNIFON CAPITAL LETTER KISS
E890	L	UNIFON CAPITAL LETTER LIE
E891	M	UNIFON CAPITAL LETTER MY
E892	N	UNIFON CAPITAL LETTER NO
E893	Ŋ	UNIFON CAPITAL LETTER SING
E894	O	UNIFON CAPITAL LETTER GOT
E895	Ω	UNIFON CAPITAL LETTER OVER
E896	Ɵ	UNIFON CAPITAL LETTER BOOK
E897	Ɵ	UNIFON CAPITAL LETTER NOW
E898	Ɵ	UNIFON CAPITAL LETTER TOY
E899	P	UNIFON CAPITAL LETTER PUN
E89A	R	UNIFON CAPITAL LETTER RUN
E89B	S	UNIFON CAPITAL LETTER SUN

    • used for sh in orthographies that use E8A8 C cell

E89C	Ȿ	UNIFON CAPITAL LETTER SHUN
E89D	T	UNIFON CAPITAL LETTER TON
E89E	ħ	UNIFON CAPITAL LETTER THE
E89F	Ꜧ	UNIFON CAPITAL LETTER THIING
E8A0	U	UNIFON CAPITAL LETTER UP
E8A1	Ш	UNIFON CAPITAL LETTER YOU
E8A2	Ʊ	UNIFON CAPITAL LETTER DO
E8A3	V	UNIFON CAPITAL LETTER VERY
E8A4	W	UNIFON CAPITAL LETTER WIT
E8A5	Ƶ	UNIFON CAPITAL LETTER VISION
E8A6	Y	UNIFON CAPITAL LETTER YES
E8A7	Ƶ	UNIFON CAPITAL LETTER ZEBRA

Native American capital letters

E8A8	C	UNIFON CAPITAL LETTER CHILL

    • used in Hupa, Karuk, Tolowa, Yurok

E8A9	Ɔ	UNIFON CAPITAL LETTER CELL

    • used in Hupa, Karuk, Tolowa, Yurok

E8AA	Ǝ	UNIFON CAPITAL LETTER BUR

    • used in Yurok

E8AB	╫	UNIFON CAPITAL LETTER BIT

    • used in Hupa, Karuk, Tolowa, Yurok

E8AC	⊿	UNIFON CAPITAL LETTER BITE

    • used in Hupa, Karuk, Tolowa, Yurok

E8AD	Ł	UNIFON CAPITAL LETTER LIE WITH STROKE
E8AE	ОI	UNIFON CAPITAL LETTER BOY

    • used in Hupa, Tolowa, Yurok

E8AF	⊥	UNIFON CAPITAL LETTER THERE
E8B0	Θ	UNIFON CAPITAL LETTER THIRST

    • used in Karuk

E8B1	Ħ	UNIFON CAPITAL LETTER TLO

    • used in Hupa, Tolowa, Yurok

E8B2	Ш	UNIFON CAPITAL LETTER KHAH

    • used in Hupa, Karuk, Tolowa, Yurok

E8B3	X	UNIFON CAPITAL LETTER EWE
E8B4	Ч	UNIFON CAPITAL LETTER CHAY
E8B5	Ɪ	UNIFON CAPITAL LETTER HE
E8B6	Ø	UNIFON CAPITAL LETTER OUT
E8B7	Ɩ	UNIFON CAPITAL LETTER JAY
E8B8	Ӽ	UNIFON CAPITAL LETTER ZHAY

Archaic capital letters

E8BC	Ħ	UNIFON CAPITAL LETTER HAH
E8BD	Ḵ	UNIFON CAPITAL LETTER KAH
E8BE	X̄	UNIFON CAPITAL LETTER GHAH
E8BF	X̱	UNIFON CAPITAL LETTER XAH

Small letters

E8C0	A	UNIFON SMALL LETTER ADD
E8C1	Δ	UNIFON SMALL LETTER ALE
E8C2	Λ	UNIFON SMALL LETTER ALL
E8C3	B	UNIFON SMALL LETTER BAN
E8C4	Ȼ	UNIFON SMALL LETTER CHUM
E8C5	D	UNIFON SMALL LETTER DIG
E8C6	E	UNIFON SMALL LETTER EVERY
E8C7	Ɇ	UNIFON SMALL LETTER EVIL
E8C8	Ɽ	UNIFON SMALL LETTER HER
E8C9	F	UNIFON SMALL LETTER FLY
E8CA	G	UNIFON SMALL LETTER GO
E8CB	H	UNIFON SMALL LETTER HOME
E8CC	I	UNIFON SMALL LETTER IT
E8CD	Ɨ	UNIFON SMALL LETTER ICE
E8CE	J	UNIFON SMALL LETTER JAM
E8CF	K	UNIFON SMALL LETTER KISS
E8D0	L	UNIFON SMALL LETTER LIE
E8D1	M	UNIFON SMALL LETTER MY
E8D2	N	UNIFON SMALL LETTER NO
E8D3	Ŋ	UNIFON SMALL LETTER SING
E8D4	O	UNIFON SMALL LETTER GOT
E8D5	Ω	UNIFON SMALL LETTER OVER
E8D6	Ɵ	UNIFON SMALL LETTER BOOK
E8D7	Ɵ	UNIFON SMALL LETTER NOW
E8D8	Ɵ	UNIFON SMALL LETTER TOY
E8D9	P	UNIFON SMALL LETTER PUN
E8DA	R	UNIFON SMALL LETTER RUN
E8DB	S	UNIFON SMALL LETTER SUN

    • used for sh in orthographies that use E8A8 C cell

E8DC	Ȿ	UNIFON SMALL LETTER SHUN
E8DD	T	UNIFON SMALL LETTER TON
E8DE	ħ	UNIFON SMALL LETTER THE
E8DF	Ꜧ	UNIFON SMALL LETTER THIING
E8E0	U	UNIFON SMALL LETTER UP
E8E1	Ш	UNIFON SMALL LETTER YOU
E8E2	Ʊ	UNIFON SMALL LETTER DO
E8E3	V	UNIFON SMALL LETTER VERY
E8E4	W	UNIFON SMALL LETTER WIT
E8E5	Ƶ	UNIFON SMALL LETTER VISION
E8E6	Y	UNIFON SMALL LETTER YES
E8E7	Z	UNIFON SMALL LETTER ZEBRA

Native American small letters

E8E8	C	UNIFON SMALL LETTER CHILL
E8E9	Ɔ	UNIFON SMALL LETTER CELL
E8EA	Ǝ	UNIFON SMALL LETTER BUR
E8EB	╫	UNIFON SMALL LETTER BIT
E8EC	⊿	UNIFON SMALL LETTER BITE
E8ED	Ł	UNIFON SMALL LETTER LIE WITH STROKE
E8EE	ОI	UNIFON SMALL LETTER BOY
E8EF	⊥	UNIFON SMALL LETTER THERE
E8F0	Θ	UNIFON SMALL LETTER THIRST

E8F1	ꜧ	UNIFON SMALL LETTER TLO
E8F2	ɯ	UNIFON SMALL LETTER KHAH
E8F3	x	UNIFON SMALL LETTER EWE
E8F4	ɥ	UNIFON SMALL LETTER CHAY
E8F5	ɪ	UNIFON SMALL LETTER HE
E8F6	ø	UNIFON SMALL LETTER OUT
E8F7	ɾ	UNIFON SMALL LETTER JAY
E8F8	ꭓ	UNIFON SMALL LETTER ZHAY

Archaic small letters

E8FC	ħ	UNIFON SMALL LETTER HAH
E8FD	ꝁ	UNIFON SMALL LETTER KAH
E8FE	x̄	UNIFON SMALL LETTER GHAH
E8FF	ꭓ	UNIFON SMALL LETTER XAH

Figures.
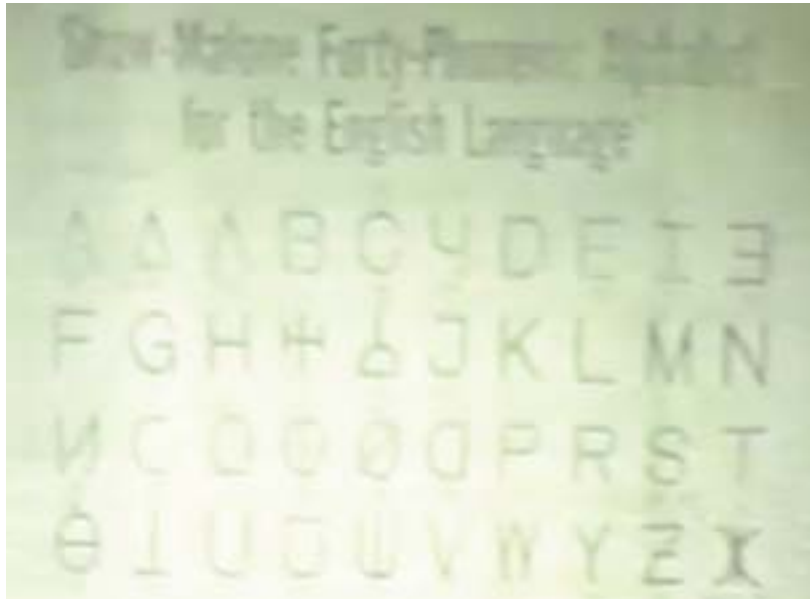
Figure 1. Example of the first published version, the Shaw-Malone Forty-Phoneme Alphabet, taken as a screen shot of a video in which John Malone was giving a lecture about the alphabet. The alphabet given is: AΔΛBCЧDEIƎFGH⊬⚇JKLMNИOϘQ∅ꝊꝖPRSTΘꞱUꝊШVWYZX

Figure 2. Example of an intermediate version of Unifon. The alphabet given is:
AΔΛBȻDEƗƎFGHI⊥JKLMNИOϘ◍ꝖꝊPRSȘTꞭꞮUꝊꝡVWƧYƵ

Figure 3. Example of an intermediate version of Unifon. The alphabet given is:
AΔΛBȻDEƗƎFGHI⚇JKLMNИOϘ◍ꝖꝊPRSȘTꞭꞮUꝊꝡVWƧYƵ

Figure 4. Example of the final version of Unifon. The alphabet given is:
AΔΛBȻDEƱƎFGHIⱵJKLMNИOQØⱺ℧PRSₛȾħɦUⱵⱵVWΣYZ

Figure 5. Example of the final version of Unifon. The alphabet given is:
AΔΛBȻDEƱƎFGHIⱵJKLMNИOQØⱺ℧PRSₛȾħɦUⱵⱵVWΣYZ

EDITORIALS

COLUMNS

CHICAGO SUNDAY
SUN-TIMES
May 29, 1960

NEWS REVIEW

SPECIAL ARTICLES

Section Two

MY FAIR LANGUAGE

Do We Need A New Alphabet?

By John R. Malone
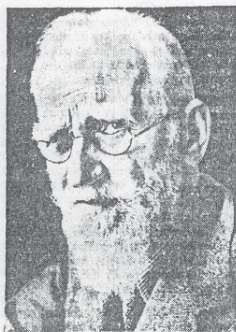
GEORGE BERNARD SHAW
A legacy for reform of the language

G. B. SHAW'S WILL —THE BACKGROUND

Infuriated by such manifest absurdities as pronouncing ph to sound like f, George Bernard Shaw, the great Irish playwright and critic, applied his trenchant wit to our alphabetical aggravations and came up with a characteristically iconoclastic solution: Invent a written language with enough characters so that each letter would designate a specific invariable sound. To this end he willed that much of his estate go toward an award for a more adequate, economical and forthright orthography of the English language. The probate court allowed $23,240 for prizes to contestants and the expense of cutting type and setting up an edition of Shaw's "Androcles and the Lion" in a doubly typeset volume—half new alphabet and half the orthodox English. This, in the proviso of Shaw's will, is to be distributed to 13,000 public libraries in English-speaking lands.

Among the ten finalists in this competition was one of the 60 Americans who were among the 467 entrants from all over the world. He is a Chicago advertising executive whose background includes wide experience as newspaperman, magazine contributor, consulting economist, Army captain with overseas service and assistant professor at his alma mater, the University of Kansas. He is working on his doctorate at the University of Chicago. He is John R. Malone, 46, whose many hobbies encompass computing equipment, the mathematics of information, communications and invention. His success in the Shavian competition has stimulated wide interest in his proposed world alphabet (described in these pages) and a nonprofit Foundation for a Compatible and Consistent Alphabet has been set up and located at 333 N. Michigan Av. Malone resides with his wife and four children in Park Forest.

Two and a half years ago, I spent one of the pleasantest evenings of my life listening to and looking at the delights of "My Fair Lady" . . . written over George Bernard Shaw's "Pygmalion." As I'm sure you all know, the story turns on the efforts of a phonetics professor, Henry Higgins, to change the language structure of a little Cockney flower girl to that of "upper class" Albertian English—and the cultural transformation which this brings about for her.

Early in the show Prof. 'Enry 'Iggins sings his plaintive lament: "Oh why can't the English learn to speak?" while his precious guttersnipe, Eliza Doolittle, distorts the noble tongue beyond recognition. I believe he knows why.

Being of Irish extraction and having something of a sympathy for the Shavian disdain of doing things the same way as others do because that is the custom of the past, the complaint of Prof. Higgins set me to thinking . . . right out there in the theater in plain sight of the beautiful stage sets.

AND WHILE THE beautiful, lilting music-hall tunes filled the evening, my mind went back to the 6-year-old at home who was having all sorts of trouble with spelling English words. It was neither consistent nor logical as his numbers were. Sometimes he could "sound out" a word; but mostly spelling was a grab bag. Getting the proper letters for a word was pure chance.

"Why can't the English . . . ?" Suddenly I saw clearly the answer to the professor's rhetorical question. Obviously they couldn't learn to speak because they hadn't learned to spell. And they hadn't learned to spell because they *couldn't.* They didn't have their own adequate alphabet and there weren't enough letters in the Latin alphabet with which they had been burdened. Eureka!

As the English are a hybrid people made up of Celts, Druids, Romans, Jutes, Saxons, Angles, Normans, Danes and Norsemen, their language is made up of elements of all these with remnants of Gaelic, Flemish and Platt-deutsch (a low German tongue) and spelled with the leftovers of an alphabet left by Julius Caesar before the time of Christ. This alphabet was later reimposed upon them by way of the Latin-based Christian church.

SINCE EARLY HEBREW and Phoenician times, the written language has generally been related rather closely to the sounds of the language. And the Phoenician and classic Greek languages were excellent examples of this. However, these languages used basically 20 to 25 or so sounds or phonemes, and their alphabets or language symbols had to be within this range. The Latin adaptation made a few ground rules for sounding vowels in one of two ways, and using some letters such as
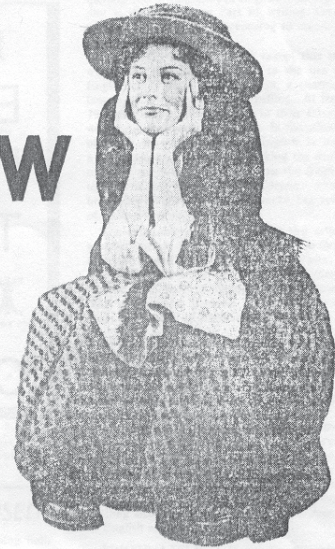
Poor Eliza Doolittle! The winsome Cockney flower girl of "My Fair Lady," waged a desperate and delightful struggle to master the King's English for Prof. 'Enry 'Iggins. Anne Rogers played role in Chicago.

ØR FO⅃ƎR. HU ORT +N HEVEN. HALꝺED BI ⅃Δ NΔM.

⅃Δ K+ИꝺUM KUM. ⅃Δ WHL. BI ꝺUN. ΛN ƎRꝺ ΛZ +T +Z +N HEVEN.

G+v UC ⅃+C ꝺΔ ØR ꝺΔL+ BRED. ΛND FΛRG+v UC ØR TRECPΛCEZ.

ΛZ WI FΛRG+v ⅃OZ HU TRECPΛC UGENCT UC. ΛND LIꝺ UC NOT

+NTꝺ TEMPTΔSUN. BUT DIL+vƎR UC FRUM IV+L: FΛR ⅃ΔN +Z ⅃U

K+ИꝺOM. ΛND ⅃U PØƎR. ΛND ⅃U GLꝺR+. FΛREVƎR ΛND EVƎR. OMEN.

The familiar as it looks in alphabet proposed by John R. Malone. This, of course, is the Lord's Prayer, King James version.

I and V for both vowels and consonants; but Latin, too, was relatively simple, using 22 letters to represent from 26 to 28 sounds.

But English! As a problem in linguistics it is plenty tough. First, it is made up of from 39 to 44 sounds coming from some of the sources indicated above, many of which are not Latin or Greek at all. Using the already inadequate Latin alphabet of 22 letters to represent these sounds made it even tougher. To do this at all satisfactorily at least four letters (J, U, W and Y) have been added. And all sorts of consistent and inconsistent ground rules have been made for giving different letters and combinations of letters different sounds in different words. This was done hundreds of years ago, with or without good cause.

TWO MORE SECTIONS INSIDE

Section Three, covering leisure activities, and Section Four, Feminine Angle and Your Home, are folded inside this section.

and today we are stuck with the whole kaboodle of them.

IN THE OLDEN DAYS every scribe or clerk had his own feelings about spelling because there were few dictionaries and no printers. A big stew pot of inconsistent rules grew up to cover the sonorous, expressive collection of words from all Europe and elsewhere, which became known as "English." Only a people so patient and stubborn as the English would have even tried to make a pattern of spelling out of such a mixed-up situation. But "muddling through" solved it . . . in a way.

Then the typesetters were brought to English shores by William Caxton, the first English printer. From Holland and Flanders he brought them and their type fonts to put "Reynard the Fox" into print—the first English typeset work. At that time, they used a Latin alphabet with 24 letters and had no fixed rules for setting up English. So these Dutch and Flemish printers made their own rules as they went or tried to use the continental rules if

Figure 6a. Article from the Chicago Sunday Sun-Times discussing Unifon.

PROPOSED NEW ALPHABET

The Learning Time Is Reduced

Continued from Preceding Page

type machines are rapidly replacing typecasting machines and metal foundry type. Also, through use of photo platemaking and photo-offset printing, typewriter-like composing machines are being utilized more and more as the means of setting up large areas of printed material. The cost of resetting or recomposing the millions of words in contemporary English could be done in overseas areas to help build up the graphic arts industries in such countries as India, Africa and South America, just as Germany and America are helping to do in Taiwan and Japan at the present.

THE COST OF SUCH transliteration would be small indeed compared with the benefits that would accrue to the world by getting a common language.

And why not convert to a form of English which will help you gain access to the knowledge of other nations as well as to their contributions to knowledge. Much of the conversion during the next decade or so could be handled through the United Nations Educational Scientific and Cultural Organization or the International Documentary Center.

And for those who can already read English, it takes less than 45 minutes to retrain yourself to read this—even an older dog can learn this new trick.

WITHIN A FEW WEEKS it is possible to teach most 5- or 6-year-olds to write English with this alphabet. There are no rules or exceptions. It is ideal for teaching English to adults from non-English countries. Once confidence and facility is attained, the problem of converting to the older spelling forms is relatively easy, because of the compatibility feature, and memory devices built into this feature.

So far this alphabet has been tested in teaching children. It is also being used in a test class of Puerto Ricans. In each case the rate of learning is surprising. It is very much like teaching a person to count by means of Arabic numbers.

It may take a generation to get general concurrence for this type of alphabet for English, but given the long history of humanity, this is

a relatively short time, and the economies possible with it are great. For instance, from 12 to 25 per cent fewer characters are needed to write a given piece of material in the simpler 40-character alphabet. The cost in reduced learning time for youngsters should enable all nations to upgrade their school systems, whether in America or abroad.

MANY TECHNICAL developments, such as machines for computing, accounting, check reading and for bibliographic listing and cataloging await adoption of this type of alphabet. So does the dictating typewriter, which takes the spoken word and types it out directly.

It is hardly needed to point out the commercial and political value in having a world speak English, as its common tongue. But the value is greatest to the poorer nations which would thereby have access to American-English techniques and scientific competence. The people of these countries could then live freely in our world, via the use of our methods and devices.

Now let's look at the alphabet itself a moment. For technical reasons all the letters have been designed with the same width, as typewriter letters generally are. To do this, some of the letters have been basically redesigned so that never again will I, l, or No. 1 be confused. There is no "lower case" or small letters as such. There is simply a flattened version of the same design. In this way needless configurations are eliminated.

FIRST WE HAVE added 11 vowel symbols to the A, E, I, O and U (and we have dispensed with the Y vowel usage). We have turned the 16 new vowels into five basic families, called the A, E, I, O and U families. The old letters are used to designate the "short" sounds of the letters as they are today: as cat, pet, bit, hot and but. Then there are added five new "long vowels" for each of these as shown in the following chart.

Each of these long vowels is characterized by a full width horizontal member which helps you remember. Then there is an aw, an e as in her, a double o as in look, an ou as in couch and oy as in boy and a yu sound as in you, or use. Here is the way the five families look:

See 1983 Version

In the consonant list the Cyrillic chay Ч has been added for the "ch" sound as in "chair"; the J has been broadened to fit our rectangle, "ng" as in sing has been turned into a single character Ͷ; s has become "sh" as in sure or shirt, while c has been made uniformly the "soft s" or "hiss" sound as in "cell" or "sin". The voiceless "th" of "thin" is represented by the Greek Theta stylized to our purpose (neither the Romans or the later day Brooklyn citizens thought much of this sound). The voiced "th" as in "they" is represented by an upside down "T". The modification of the W was made to keep it from filling up with ink or dirt as it does today on the typewriter or printing press. The Z has been crossed in the European fashion to distinguish it from a carelessly made 2. A modification of the Cyrillic zh sound character has been made for the most infrequently used sound in English, that found at the s in leisure, or the z in azure, and in many words of French-origin, such as rouge, beige, etc.

A FEW REMINDERS are needed: the G is always hard as in "get"; only K has the hard "c" sound now found in "crow." All buzzing "s" sounds as in business or glasses use z. Dropped entirely out are x and q which can be replaced by combinations of other letters.

Below are the 24 consonants and what they sound like: See 1983 Version

B (b)	C (ss)	(ch)	D (d)
F (f)	G (get)	H (h)	J (j)
K (k)	L (l)	M (m)	N (n)
Ͷ (ng)	P (p)	R (r)	S (sh)
T (t)	(th)	(th)	V (v)
W (w)	Y (yet)	Z (z)	(zh)

Now there is an added plus to this alphabet, besides such designed in features as being use-

ful for computers and dictatable typewriters. It is sufficiently broad in phoneme representation so that it can be used for transcribing Russian, Hebrew, Arabic, German, Italian and Spanish phonetically.

With a few conventions or marks it can be used for French and Portuguese. The Romaji version of Japanese can go into it very easily and consistently with the present orthographic treatment.

OTHER PHONETIC alphabets have been proposed before, but this one is sufficiently comprehensive and practical for immediate use in primary schools at home, and in English training and technical schools at home and abroad. The technological conditions are ripening rapidly; the political, commercial and communication imperatives are clear and demanding.

You can start writing this way tomorrow. You will find you can learn it easily, rapidly. Write as you speak. English will never be the same for you again — and lots easier to spell. You, American, will be considered among the most thoughtful people on earth—for you will have changed your ways so others can enjoy your movies, books, technics, riches and general cultural bounty and best of all, you can make your speech and language habits those of the world.

John R. Malone explains his 40-character alphabet and compatible number system. Lower case letters simply are smaller versions of the capital letters.

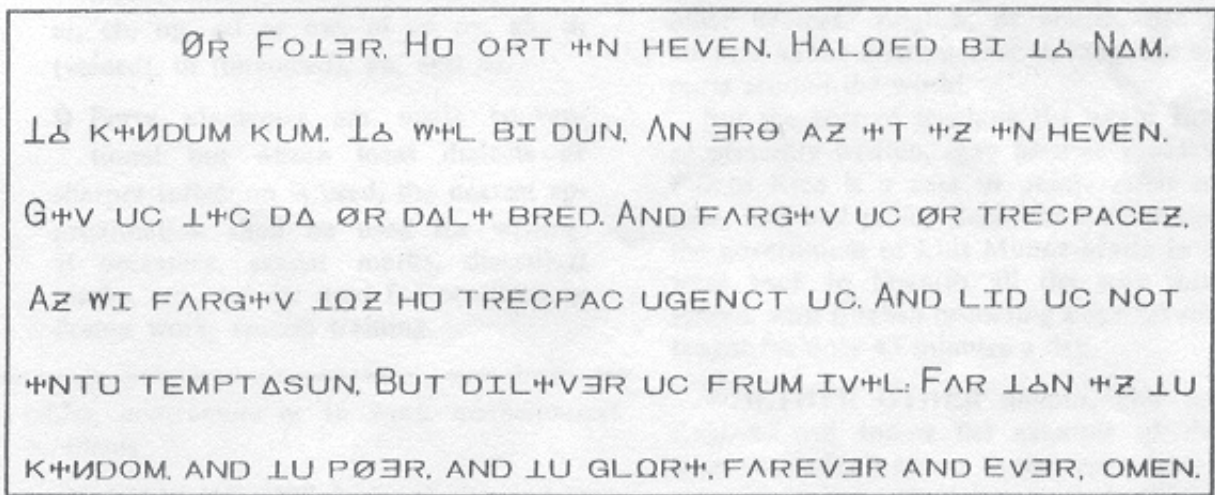**Figure 6b.** Article from the Chicago Sunday Sun-Times discussing Unifon.

Figure 7. Example of an early version of Unifon (the alphabet as in Figure 1) set using upper- and lower-case. The alphabet given is:
AΔΛBCЧDEIƎFGHⵜ⅄JKLMNͶOΩⵁØⴳⴲPRSTΘⵑUՍШVWYƵX;
letters given here in red do not appear in the text.
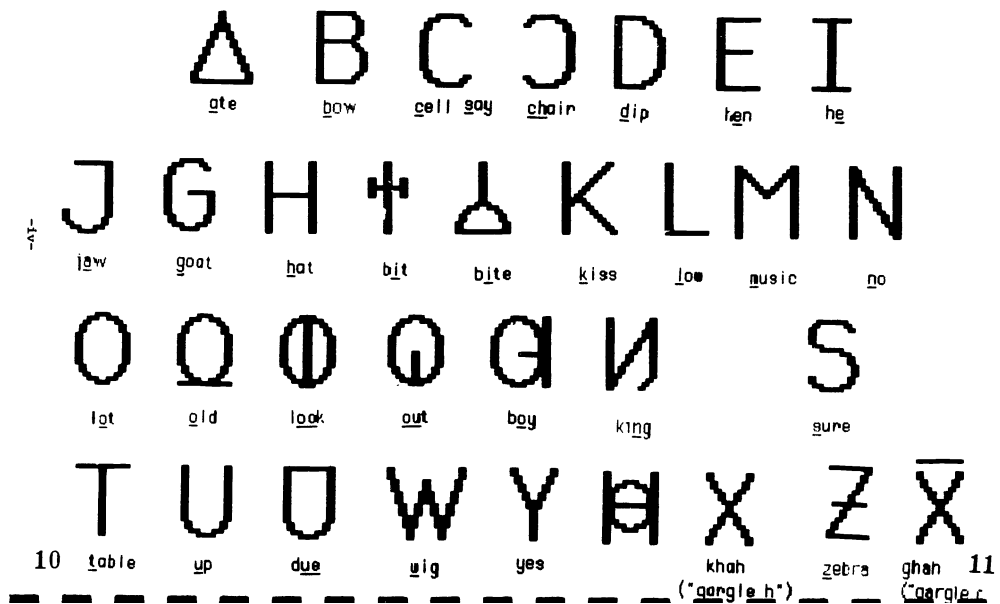
Hupa Unifon

Single Sound Alphabet

Δ B C Ɔ D E I
ate   bow   cell say   chair   dip   ten   he

J G H ‡ ⟂ K L M N
jaw   goat   hot   bit   bite   kiss   low   music   no

O Ω Φ Ɵ Ɑ И   S
lot   old   look   out   boy   king   sure

T U Ʊ W Y ⊟ X Ƶ X̄
10 table   up   due   wig   yes   khah   zebra   ghah 11
                                    ("gargle h")   ("gargle r"

Figure 8. The Unifon alphabet for Hupe.

Karuk Unifon

Single Sound Alphabet

Note: The Karuk R is pronounced by tapping the tip of the tongue on the roof of the mouth.
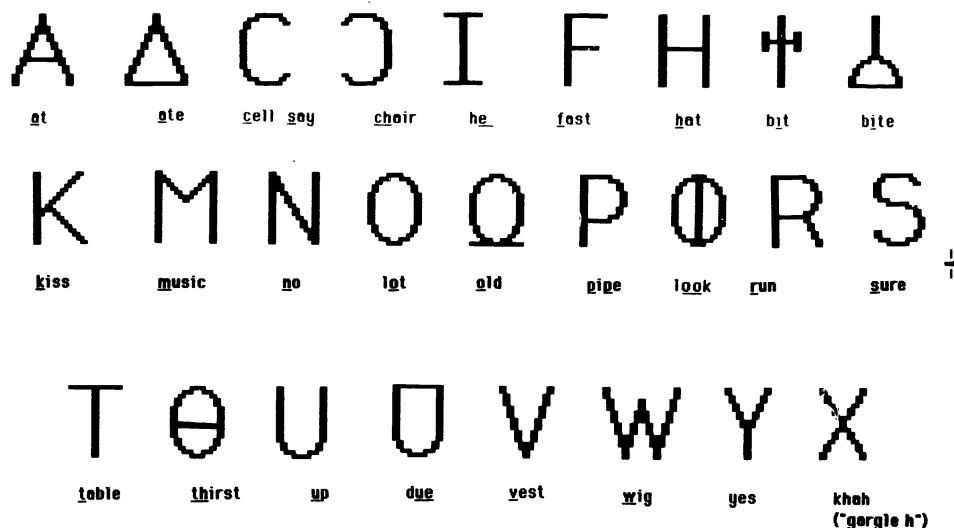The Karuk O is sometimes nasalized: Õ

A Δ C Ɔ I F H ‡ ⟂
at   ate   cell say   chair   he   fast   hot   bit   bite

K M N O Ω P Φ R S
kiss   music   no   lot   old   pipe   look   run   sure

T Θ U Ʊ V W Y X
table   thirst   up   due   vest   wig   yes   khah
                                               ("gargle h")

Figure 9. The Unifon alphabet for Karuk.
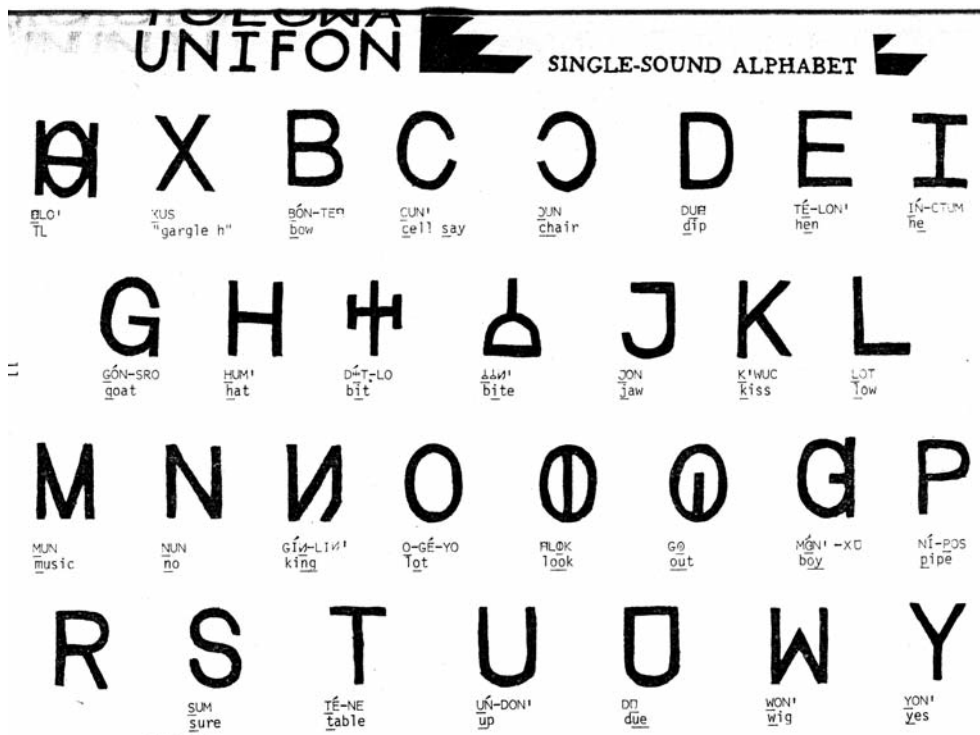
Figure 10. The Unifon alphabet for Tolowa.
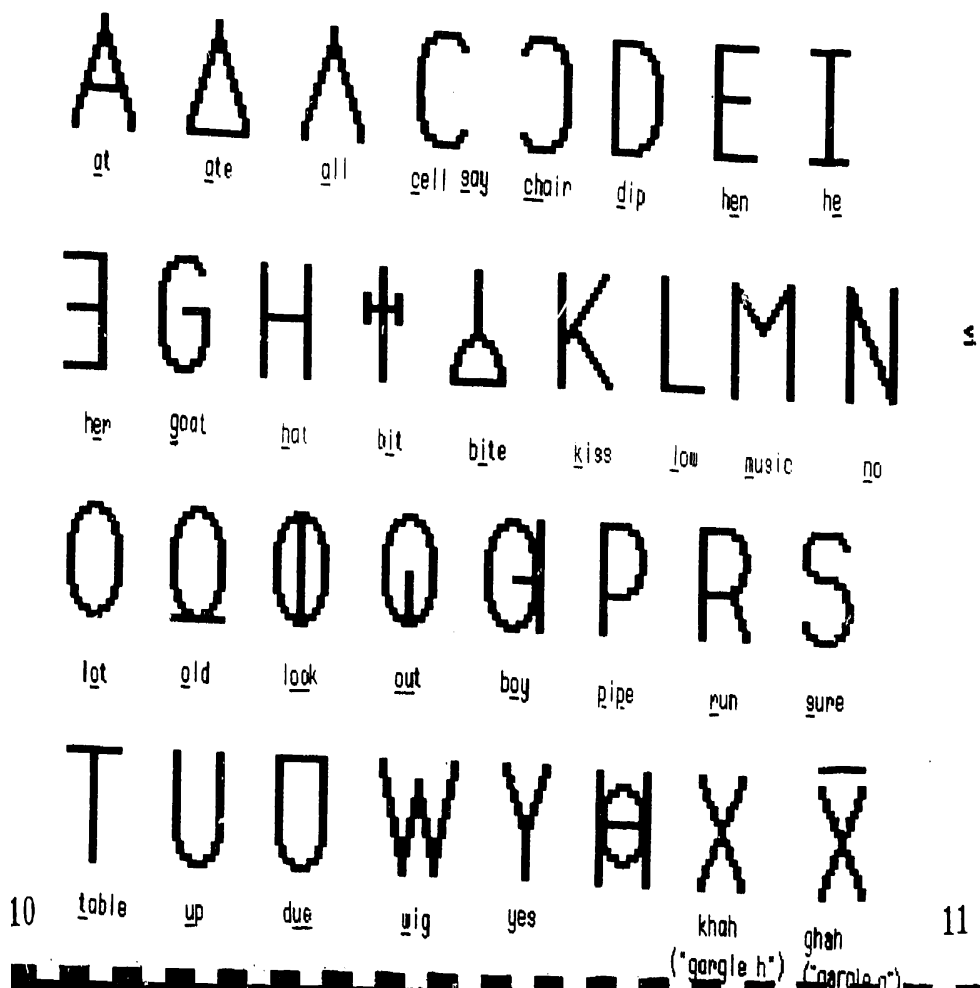
Figure 11. The Unifon alphabet for Yurok.

Figure 12. Evidently the source alphabet which was applied to different languages depending on their phonetic inventories.

A. Administrative

1. Title
Preliminary proposal to encode "Unifon" characters in the UCS.
2. Requester's name
UC Berkeley Script Encoding Initiative (Universal Scripts Project)
(Author) Michael Everson
3. Requester type (Member body/Liaison/Individual contribution)
Liaison contribution.
4. Submission date
2012-01-28
5. Requester's reference (if applicable)
6. Choose one of the following:
6a. This is a complete proposal
No.
6b. More information will be provided later
Yes.

B. Technical – General

1. Choose one of the following:
1a. This proposal is for a new script (set of characters)
Not certain.
Proposed name of script
1b. The proposal is for addition of character(s) to an existing block
Not certain.
1c. Name of the existing block
2. Number of characters in proposal
Not certain.
3. Proposed category (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)
Category A.
4. Is a repertoire including character names provided?
Yes.
4a. If YES, are the names in accordance with the "character naming guidelines"
Yes.
4b. Are the character shapes attached in a legible form suitable for review?
Yes.
5. Fonts related:
5a. Who will provide the appropriate computerized font to the Project Editor of 10646 for publishing the standard?
Michael Everson.
5b. Identify the party granting a license for use of the font by the editors (include address, e-mail, ftp-site, etc.):
Michael Everson, Fontlab and Fontographer.
6. References:
6a. Are references (to other character sets, dictionaries, descriptive texts etc.) provided?
Yes.
6b. Are published examples of use (such as samples from newspapers, magazines, or other sources) of proposed characters attached?
Yes.
7. Special encoding issue: 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)?
No. Unicode character properties to be provided later.
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.
See above.

C. Technical - Justification

1. Has this proposal for addition of character(s) been submitted before? If YES explain
No.
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.)?
Yes.
2a. 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?
Linguists, teachers, educationists.
4a. The context of use for the proposed characters (type of use; common or rare)
Rare.
4b. Reference

5a. Are the proposed characters in current use by the user community?
By some.
5b. If YES, where?
In the US.
6. After giving due considerations to the principles in the P&P document must the proposed characters be entirely in the BMP?
Not certain.
6a. If YES, is a rationale provided?
6b. If YES, reference
7. Should the proposed characters be kept together in a contiguous range (rather than being scattered)?
No.
8a. Can any of the proposed characters be considered a presentation form of an existing character or character sequence?
No.
8b. If YES, is a rationale for its inclusion provided?
8c. If YES, reference
9a. Can any of the proposed characters be encoded using a composed character sequence of either existing characters or other proposed characters?
No.
9b. If YES, is a rationale for its inclusion provided?
9c. If YES, reference
10a. Can any of the proposed character(s) be considered to be similar (in appearance or function) to an existing character?
No.
10b. If YES, is a rationale for its inclusion provided?
10c. If YES, reference
11a. Does the proposal include use of combining characters and/or use of composite sequences?
Yes.
11b. If YES, is a rationale for such use provided?
No.
11c. If YES, reference
11d. Is a list of composite sequences and their corresponding glyph images (graphic symbols) provided?
No.
11e. If YES, reference
12a. Does the proposal contain characters with any special properties such as control function or similar semantics?
No.
12b. If YES, describe in detail (include attachment if necessary)
13a. Does the proposal contain any Ideographic compatibility character(s)?
No.
13b. If YES, is the equivalent corresponding unified ideographic character(s) identified?