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Toki IO

Version 3
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Introduction

This language was first published on Tuesday, November 7, 2006 and has no known speakers. It's unlikely that it can actually be spoken, due to difficulties in memorizing the vocabulary, which, although limited, is made up of words that sound too similar (but there are certainly some very gifted people).

Toki IO is originally a derivation of **toki pona**, from which it rejects all philosophical motivations. It's just an exercise in style to see what can be expressed with so few words.

This version 3 clarifies a few grammar rules and updates the vocabulary, which has undergone a few changes. Previous texts are obsolete.

Words have a general meaning whose exact meaning is provided by context, as in all the world's languages, but with such a limited vocabulary, this phenomenon is important in Toki IO.

If words can sometimes be ambiguous, syntax tries not to be. The creation of a precise grammar was one of Toki IO's challenges, along with the unlimited expression of numbers.

Toki IO consists of 110 words.
Toki IO uses 4 consonants: K ,N ,T and S.
The Toki IO uses 2 vowels, I and O, hence its name.

Using only two-syllable words with an alphabet of 4 consonants and 2 vowels, with a maximum of two letters per syllable:

- is a vowel,

- or in the order: consonant-vowel,

you get 110 possibilities. The Toki IO can therefore have no more than 110 single terms. I

represents the number 1 and O represents the number 0.

As the mathematical system is in base 2, OI (the two letters are pronounced separately O-I) means 2, as the numbers are read from left to right, from unity to the greatest multiple of 2. (Computer experts, pay attention, this is the opposite of the classic binary system!)

IO generally means number.
Toki IO could be translated as "Speak-number" or something similar.

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This document groups together various sub-documents, including

- grammar,

- a bilingual vocabulary chart,

- a few handwriting variants,

- some considerations on compound words,

- personal reflections from 2006 and 2021

- and finally a set of eight lessons to try and learn the words of the toki IO.

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Vocabulary

Toki IO consists of a total of 110 words. This number cannot change. It uses :

4 consonants K N T S

and 2 vowels I and

O.

Word categories

There are two categories of words in Toki IO:

- Pure grammatical markers

- words corresponding to a thing, a being, a state or an action, which by default are nouns, including :
  - the numbers
  - personal pronouns (I, you he/she we you them)

But we need to bear in mind that these categories are defined for ease of understanding, but that their nature is not set in stone, and that practice can reveal unsuspected functionalities of certain words. For example, the attibution marker

To understand the following table, you need to learn ZOI and ZOO, which are value modifiers. When added as an adjective to a word, they give it a particular meaning. EX;

  - INI, meaning "to be", gives with ZOI (ini zoi) the notion of birth, beginning... and with ZOO (ini zoo) the meaning of death, end.
  - KIKO, meaning greatness, measure, gives big with ZOI (kiko zoi) and small with ZOO (kiko zoo)

As already mentioned, these are idiomatic expressions whose arbitrary nature is often underlined.

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Bilingual dictionary table

legend: **p°: grammatical particle; s°: superlative by doubling;**

+ or - means that the word is marked with a zoi majorator or zoo diminator to indicate a degree of quality.

Toki IO		meaning	Toki IO		meaning
i		**1; one**	o		zero
ii		3 ;	oi		2; two
iki		identical; same ;	oki		sheet
iko		human	oko		look; see; appear
ini		BE ; + to begin; birth; beginning - finish; death; end	oni		clothing; fabric
ino		Issue, give, gift	ono		or; alternative; swap
io		number; figure	oo		oho! Ooh! Ho! …
iti		line	oti		hear; listen
ito		multiply (x)	oto		and ; plus (+)
izi		blue	ozi		*time*
izo		*man*	*ozo*		*woman*
ki		*p° verb marker*	*ti*		*word separator* *S° ti ti: proposition separator*

kii		*yellow*	*tii*	*but; however* *Future/conditional marker*
kiki		*fruit*	*tiki*	light , sun , day
kiko		size ; measurement ; +large -small zozi kiko zoi : big zoto kiko zoi : fat	tiko	stone
kini		some	tini	to feel; emotion
kino		movement + go - to come	tino	balance +stable -unstable
kio		body (animal, human)	tio	you; you; you
kiti		container; pouch; tub ; ...	titi	*sweetness: +sweet (sugary)* *-amer*
kito		*use*	*tito*	*head; guide; command;* *lead*
kizi		*plant; grass; ...*	*tizi*	furniture; furniture
kizo		want; will ;	tizo	temperature +hot -cold
ko		division (/)	to	element of; atom; point; particle
koi		P° Allocation marker • S° koi koi: in the direction of, towards	you	Smell, smell odors
koki		to eat; food	toki	speak; language
koko		cocoon; home	toko	error; accident; to break
koni		knowledge; knowing	toni	goodness +goodness - badness

kono	angle; cone	tono	red
koo	is it …?	too	many; S° too too: a lot
koti	cost; currency; price	toti	power; s° : power
koto	flat ; +butt; outgrowth -creux; valley	toto	all
kozi	cause; inference	tozi	mood +gainfulness -sadness
kozo	thing	tozo	group; community; public
or	this; that; this …	zi	p° object marker
nii	cleanliness +clean -dirty	zii	density +hard -soft
niki	gender	ziki	insect
niko	to love; love	ziko	circle; cycle
nini	name; word; name	zini	mammal
nino	water	zino	fish
nio	I; me; me	zio	he; she; him
niti	fire; flame; burning	ziti	snake
nito	air; wind	zito	punctuation mark
nizi	crazy; strange	zizi	stick; oblong object
nizo	scheduling; orderly	zizo	bird

no		negation	zo		hyphen: used to create compound words, thus preventing the second word from being considered an adjective or adverb.
noi		land; country	zoi		p° increase ;
noki		conflict; war; combat	zoki		side; next to; hip +far -near
noko		metal	zoko		path; method ;
noni		do; work	zoni		where + inside - outside
nono		mom; dad; parents + grandparents - children (relatives)	zono		gray +black -white
noo		hole, opening; to open	zoo		p° reduction ;
noti		written; to write	zoti		Midfield ; + in front - behind zoti zoti: horizontal depth
noto		limbs +arms -legs	zoto		environment + right - left zoto zoto: width
nozi		animal or human cry	zozi		median +top(top) - bottom(bottom) zozi zozi: height
nozo		sleep; sleeping	zozo		Have

General grammar

value modifiers :

there are two words used to describe average values upwards or downwards. ZOI and ZOO describe size, temperature, light... (KIKO comes from Quetchua, where KIKA m e a n s   big). There's a great deal of arbitrariness in these idiomatic expressions, as the "meaning" of the change is not always self-evident.

The TI separator particle

A word used after another modifies the first (as an adjective or adverb, as the case may be), but sometimes several words together form a compound that becomes a qualifier. This group must be isolated from the word to be qualified. To do this, we use the particle **TI** , which is a kind of comma or quotation mark, written and spoken, with no other role than to avoid ambiguity.
Example: Kiki zono zoo : white fruit
        Kiki zono ti kiko zoo : grey fruit / small (the little grey fruit)[1]

A superlative of TI, i.e. a repetition of TI, (TI TI) is used to isolate the set that precedes it. It can be used to create a circumstantial proposition.

the ZO unifying particle

If TI is a separator, ZO is a kind of hyphen that allows you to create compound words without grammatical confusion, which then function like base words.

Properly expressed, Toki IO could also be noted as "Toki zo IO", because in "toki io" io is an adjective, as one would say "French language", whereas "Toki zo IO" is a noun, as one would say "the French". Note that capitalization doesn't matter; everyone does as they prefer.

Generally, in a sequence of words, the second plays the role of adjective in relation to the first. By using the particle ZO, which can be assimilated to a hyphen, we obtain a third noun by linking the first two. Thus, "koko zo nino" would be an expression for the water tower, while "koko nino" is the wet house, and "koko ko zo nino" or perhaps "ko koko zo nino" could refer to the shower room, "ko" meaning to divide, room, piece, etc., while "koko zo nino" is the wet house.
[note that koko ko and ko koko differ in the spoken word by the tonic accent]

To understand the difference between ZO and TI, let's look at this example.

Ko koko nino; piece (wet house). *koko* is a qualifier of *ko* and *nino* is a qualifier of *koko*.

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1   *Note that grey is considered to be moving towards black as it increases, and towards white as it decreases.*

Ko koko ti nino: (piece house(nière)) wet. With TI, *nino* is not a qualifier of *koko* but of "*ko koko*".

ko koko zo nino : piece house(nière) water. ZO removes the qualifying function from *nino*, which remains a noun. We then have a compound noun.

In Toki IO, *koko* qualifying *ko* has a meaning, even if the French translation seems odd.

Compound nouns are freely created by the user, there is no dictionary of compound words and no authority to admit or criticize. Have fun expressing the notion of pool.

Note: *it's possible to achieve meaningful expressions using only the TI separator, but ZO is a Toki IO luxury that makes things easier*.

the numeral
is placed before the noun it modifies: **oi zini = two mammals, in other words a "mammal pair"; ii tizi = three pieces of furniture.** There's no plural mark: it's the numeral that indicates the singular or plural.

two almost-numbers
Two words obey the rules of number positioning. TOO, several, and KINI, some, express different notions depending on their position.

Too Kiki: several fruits. Kiki too: various fruits.
Kini kiki: some fruit (from a set); I Kiki kini: any fruit (any)

ordinal
is placed after the noun it modifies, and behaves like an adjective: **zini oi = the second mammal; tizi ii tono = the third piece of red furniture***;*

expression of numbers :
Numbers are expressed by reading the two digits I and O from left to right. Numbers are written in a special way: an apostrophe separates the digits in pairs, starting on the left. Pseudowords of two syllables are thus delimited, allowing accentuation of the first syllable. A litany can then unfold, punctuated by tonic accents and a slight pause - a half-sigh - between two pairs of digits. This pause is much shorter than that between two ordinary words.
So what is written, in letters or numbers, what is said, is exactly the same thing. example:
io'oi'oo'oi: seventy-three.
Or in decimal $1+2×4+0×16+2×32 = 1+8+00+64 = 1+8+64 = 73$

In Toki IO, the unit at the beginning of the number immediately indicates an odd number. 75 would do the same ii'oi'oo'oi with an i as the first character, while 74 would be written oi'oi'oo'oi.

the question item :

Toki IO uses the simple particle KOO, which is placed at the beginning of the sentence to mark an interrogative form. The rest of the sentence is identical to the affirmative form. A final question mark (zito koo: interrogative punctuation) is used in writing for the sake of redundancy.
 A noun or pronoun can precede the interrogative clause, clarifying the meaning of the sentence:
 (Julien, est-que il a fini d'entrer dans lui de la nourriture?) Julien koo zio ki kini zoni zio zi koki?
 (Does Julien eat?) **Julien koo zio ki koki?**
 (Julien, has he finished cooking?) Julien koo zio ki kini noni zi koki?

the superlative :

the superlative is marked by a doubling of the word. All words can be superlativeized, except numbers, which have a life of their own.
 The meaning of superlatives obviously depends on the words involved.

For example, ZIO ZIO will mean something like "oneself", "oneself", "oneself in substance"... whereas if KIKO ZOI is translated as "great", KIKO ZOI ZOI will express "very great" (similar to the French "petit petit" meaning "very small"). Some natural languages commonly use this procedure.

Contrary to Indonesian, the doubling of a word is not used to mark a plural. If necessary, we use a numeral or TOO (several) and TOO TOO (many):

- too Kiki , *several fruits*;

- too much Kiki, *lots of fruit*.

- But also: too kiki too, *various fruits*;

- too too kiki too, *many different kinds of fruit* (perhaps depending on the context: *many different kinds of fruit*; unless there's a better way of saying that).

Note also the use of the superlative doubling of the attribution marker KOI to indicate direction. French confuses these two notions in "to":

- nio ino **koi** tio zi kiki tono: I give you red fruit

- nio kino **koi koi** koko tio: I'm going to your house.

Conjugation :

Apart from particles, the words in Toki IO have no a priori status, but a marker can be used to assign them the role of verb: KI .
 This marker is used with all persons and is placed between the "subject group" and the "verb group". A verb followed by an object complement marked with ZI is transitive.
 A verb that is not followed by an object complement is intransitive.

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nio ki koki zi kiki	*I eat the fruit*
zio ki koki zi kiki kii	*the person eats the yellow fruit*
nio ki kino	*I'm on the move*

tenses and modes

Toki IO can be conjugated, thanks to particles, in the present, past, future-conditional, conditional-anterior, combined with durative and immediate, and imperative.
But since this conjugation doesn't imply any transformation of the word, we can almost say that, as in Chinese or Indonesian, there is no conjugation as such, and that adverbs are used to mark temporality.
The adverbial marker of time is positioned after the verb marker and before the verb. It modifies the verb marker, not the verb itself.

> *Note the word order. A modifier doesn't have the same meaning placed between the verb marker and the verb, or after the verb, in which case it's just an adverb. A French speaker is used to differentiating between "petite fille" and "fille petite" with adjectives. It's a bit the same in Toki io.*

- The **present** has no marker other than **KI ;**
  As the words have no particular grammatical value, it's the word **ki** that indicates that we're now dealing with a verbal group. This marker is always used, even after pronouns, otherwise the verb would be an adjective applied to the pronoun.
      Then the *zi* marker indicates the beginning of the direct object complement of the verb when the verb is in the transitive.

- The **past tense** is marked by OZI , meaning time:ki ozi koki zi kiki   (I'in time' ate the fruit; I ate the fruit); tio ki ozi ini zoo zi nozo tio (you have finished sleeping) [tio ki ini zoo zi nozo tio: you have finished sleeping]. Ozi as a verb marker is an abbreviation of "ozi ini zoo", finished time. Placed after the verb, it becomes an adverb, meaning "temporarily".

- The **future** is always a conditional idea, the future being by nature uncertain, marked by TII: nio ki tii koki zi kiki ni (I will eat this fruit)

- **The imperative** is marked by the inversion of the verb marker KI and the pronoun: ki tio noni zi ni! (finish that!).

- The **future (conditional) past** is marked jointly by TII and Ozi: tio ki tii ozi no ini zoni ni, zio ki koki tii ozi zi too kiki kii (if you hadn't been there, he would have eaten several yellow fruits).
   Note 1: in **no ini**, NO obeys the same rule as numbers: placed before a word, it indicates the opposite; placed after, it's an ordinary adjective or adverb. For example, **ki no toki** means "not to speak", but **toki no** means "denied speech".

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Note 2: **no ini zoni ni** indicates absence here, in this place (**zoni ni**), whereas simple non-existence would be **no ini.** ("**Ini ono no ini**" said Hamlet).

- **Duration** is marked by TOO: nio ki too koki zi kiki kii ni (I'm eating this yellow fruit here). Too means several, and when used after ki it indicates something like "several times", so it emphasizes duration.

- The **immediate future** can be identified by the use of TII NI (however there, right away): nio ki tii ni koki zi zino tono (I will eat the goldfish right away)

the object complement

The object complement is indicated by the ZI marker. If there are several direst complements, we can either repeat the ZI marker, or use OTO (and) or ONO (or), depending on the meaning, or combine these three words according to the precision required.

allocation

The award is marked by KOI.

nio ino **koi** tio zi kiki tono: I give you red fruit

> *Note also the use of the superlative doubling of the attribution marker KOI to indicate direction. French confuses these two notions in "to":*
>
> *nio kino **koi koi** koko tio: I'm going to your house.*

pronouns

The Toki IO distinguishes between people in three ways:

moi, toi and (il, elle, on) in the singular,

 nous, vous and (ils, elles, eux) in the

 plural.

A singular pronoun does not express a plural. Plural pronouns are made up of the equivalent singular person followed by the majorator ZOI (as in Chinese).

The "you" is always a singular ; there is no pronoun of reverence in toki io.

I (me) : *nio*	we: nio zoi
You : tio	you: tio zoi
he, she, we, the person, the thing, : zio	they, them … zio zoi

Conclusion on grammar
Well, that seems to be all!

A few examples would undoubtedly be useful in understanding word articulation, and would be the subject of a training course. We'd like to point out that word order is important in Toki IO, and that the combination with grammatical particles allows for a surprising wealth of expression, given the paucity of basic words.

A word like KOKI means food, but preceded by KI, it means the act of eating, which in the end is no different from French (v) manger and (n) le manger, (v) déjeuner and (n) le déjeuner).But beware of trying to use the French conjugation system in Toki IO, or you'll end up saying the strangest things. For example, there is no past participle, so "zio ki koki" means he/she eats, but "zio koki" means he/she is food (for a shark, for example) because koki becomes an adjective here, which is also a verb of state. [In French, "le chateau vert" or "le chateau est vert" have the same meaning.] But this is ambiguous, as "zio koki" can also be understood as "il (est) nourri"! If necessary, to clearly express that he is fed, we can say in Toki IO that he has finished eating (zio ki koki kini).

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Mathematics

      numbers decimals
      geometry
      logic and sets trigonometry

The Toki IO is not afraid of mathematics, even if its limited vocabulary doesn't allow it to hope to become the universal medium.

The numbers
The Toki IO native system is in base two.

There are therefore only two digits in Toki IO: I and O, hence the name of the language. But Toki IO has the potential to express all numbers, thanks to its positioning script and an oralization based on litanic diction.
Since June 2007, the binary system uses an inverted order: numbers are still read from left to right, but the FIRST digit of an integer represents the number of units, the second the number of 2-power-2, the third the number of 2-power-3 ....
If it's a fractional number, the non-integer part is expressed first.

The advantage of this layout is that it enables the user to orally understand the size of the number being spoken. Indeed, in a traditional presentation of decimal numbers, it is necessary to resort to an expression

to give an idea of the order of magnitude:
three **million ,** two hundred and ten **thousand ,** three **hundred, forty,** and **one** .

As Toki io has no specific words to express quantities other than the number itself, with a traditional presentation of binary numbers, you'd have to wait until the end of the statement, having noted the number of pairs of digits, to know the value of the first statement, which is unsatisfactory (and probably impossible).

By adopting the reverse order, we always know the value of the power of two to be multiplied by the digit, O or I, in question. This does not change if the number is fractional, since fractions of integers are written to the left of the decimal point.
 [Note that this is the decimal system used by many languages where the units can be spoken before the tens: this is the case in French for the numbers 11,12,13,14,15,16. For example, (quin)(ze) i s   five + a ten, and (trei)(ze) i s   three + a ten. The same logic exists in English for (thirt)(ty),(six)(ty) . As for the Germans and the Dutch, they use the order unit-ten beyond the first ten].

Paper and pencil operations are carried out completely in reverse. It just takes a little practice to get the hang of it.

In Toki IO, numbers are said as they are written, and what is said, what is written, is exactly the value of the number.
 The names of common numbers are easier to memorize than you might think at first.

The powers of 2 are numbered from left to right, starting from zero. So the 5th digit from the left corresponds to 2 to the 5th power.
The first digit obviously corresponds to 2 to the power of zero, so "i" is 1×2^0=1, as you'd expect.

o or O : zero, pronounced[o] i or I : one , pronounced [i] oi means two and is pronounced [oi]. IO , isolated, means Number, and also expresses the number I in a string of digits.	numbers decompose according to position into powers of OI (2)

	numbers decompose according to position into powers of OI (2)			
	i; oi; ii	oo'i	oo'oi	oo'oo'i
	one; 2; 3	$4 = 1 \times 2^2$	$8 = 1 \times 2^3$	$16 = 1 \times 2^4$

addition i+0=i; i+i=oi; oi+i=ii so OI is decimal 2, ii is three. + is said "oto - is said "no oto = is said "iki	Why "-" = no oto? oto oto = oto no no = Ø (no oto) oto (oto) =

multiplication ixo=o ; ixi=i x (to multiply) is said "ito". ÷ (to divide) is said "ko". dividend is said "io ko tii" (conditional cut number) divisor is said "io ki ko". résultat (fractional number) is called "io ko" modulo (remainder) is called "to io ti no ko" (element number not divided) = (equal) is said "iki" ay is said: "[a] toti [y]".	(oto oto oto) no = no oto (no oto) oto (no oto) = (oto oto oto) (no no) = oto ** The NO negation modifier is placed, like numbers, before the word it modifies.

Writing: numbers are an alignment of digits denoting powers of 2. To facilitate reading and pronunciation, an apostrophe separates the digits in pairs from the left. This apostrophe corresponds to a tiny voice pose, the tonic accent that marks the pair of digits. This apostrophe has no particular mathematical value; it's just a (very useful) convenience.
For example: io'io'oo'io'io'i, which you can tell from the I at the beginning (left) is an odd number.
This number is read from LEFT to RIGHT a s   a sum of powers of 2, the first digit corresponding to 2-power-0, i.e. 1, the second to 2-power1, then 2-power2...
1x1+0x2+1x4+0x8+0x16+0x32+1x64+0x128+1x256+0x512+1x1024 =1349
Practical: the double of 1349 is obtained by adding an O to the LEFT of the number
 oi'oi'oo'oi'oi'oi.
 2+8+( )+128+512+2048 = 2698
and half of
io'oi'ii'oi'io'io (odd number) 1+8+16+32+128+256+1024=
1465
i,oo'ii'io'ii'oi (note the comma on the left)
 1/2+4+8+16+64+128+512 = 732.5

Fractional numbers: You can use a comma (or a dot like the English **) to express a fractional number, as in base 10.**   'O ,IO'II
Logically, we should specify its nature before stating a fractional number. To do this, we use the expression "Io ko" (cut number) before beginning the litany of I's and
O. Beyond a few decimal places, only the written form is really comprehensible, but this is hardly any different for statements in base ten. In practice, it seems that for two or three decimal places, the IO KO announcement can be dispensed with.

Pronunciation: numbers are read in litany, in two-digit words from the left, with a tiny pause between two pairs of digits. Each pair is strongly accented as a word, always the first syllable of the word.

common numbers :

Familiar number equivalents :
For everyday use, number equivalents are usable, but not very interesting. These are systems that partly use systems other than base 2, depending on specific situations. As in other languages, these are numbering procedures based on analogies with the human body, the cycle of days, etc.
Toki IO uses IO(number) as an adjective after the word for number, to differentiate this usage from the normal meaning of the word. This procedure is also permissible for less common mathematical concepts.
examples :
noto noto la main > noto noto io five but applies especially to a handful (quantity)
 ziko le cercle > ziko io depending on the context:
twelve, a dozen, by assimilation with the twelve months of the year, the twelve hours of the clock... but also 60 to count the minutes
more rarely 360 as part of the angles
oi noto noto io> 2 hands number> (10) used more in the sense of two handfuls(quantity). It's simpler to say oi'oi than oi noto noto io for the number itself.

0 : o	5: io'i
1 : i	6 :oi'i
2 :oi	7 : ii'i
3 : ii	8: oo'oi
4: oo'i	9: io'oi

Saying decimal numbers:

Decimal numbers have no other name than their base-2 equivalent. Nevertheless, you need to be able to tell numbers written in this system (even large numbers!), as well as numbers in any conceivable base.
The Toki IO considers 1, 6, 5, 4 to be signs of the numbers I, OI'I, IO'I and OO'I. If we use the following signs f o r digits in base five: Ø, £, Ð, Þ, ¥, the logic will remain the same.
Just say something like "the base *x* images *of the numbers I and OI'I and IO'I and OO'I are side by side",
or better still, one number is written before another.*
So 1654 in base ten is expressed as follows:
io noti zoko oi'oi ki iki zi I zoti OI'I zoti IO'I zoti OO'I
 (or even, very incorrectly but quickly, if there is no ambiguity in the context: io oi'oi zi I
 ti OI'I ti IO'I ti OO'I)
and Ð£ØÞØ¥, which, except for a calculation error, is the base-five expression of
 1654, will be: io noti zoko io'i ki iko zi OO'I zoti I *zoti O zoti II zoti O zoti OO'I*
 and in abbreviated form: io io'i zi OOI ti I ti O ti II ti O ti OO'I
We could do the same in base 8, 16, 20, 60 or 13, or 27 if we had an irrepressible urge to use these bases.

digital numbers in Toki IO

In the original "delirium" about the Toki IO, there was a ciphered syllabary script:

> *Toki IO has only ten different syllables (3 more than Solrésol, and for only 110 words, that's almost too many!), and although it wasn't planned, let's take advantage of this happy coincidence to link each syllable to a number.*
> *0=o; 1=i; 2=Ki; 3=Ni; 4=Ti; 5=Zi; 6=Ko; 7=No; 8=To; 9=Zo .*
> *Toki IO would be written according to this syllabary: 82 10*

This delusion provides an unexpected framework for expressing decimal numbers in Toki IO. All that's needed is a preposition to indicate that the following elements will be numbers and not words, in a manner analogous to the Hebrew system. This system will be integrated into the Toki IO standard in November 2022.

Here's how to express a count in decimal.

Io zo zizi + [sequence of syllables_numbers]' . Note the final apostrophe.

The magic formula io zo zizi is a compound word abbreviation of the full formula io zizi ti noto noto zoi, digital number. Digital coming from doigt, which is the oblong object (zizi) of the hand (noto noto zoi). As there are no words for ten, hundred, thousand, myriad, million, billion and so on, we simply recite the sequence of syllabary numbers, but instead of saying them, as we say *neuf trois* to talk about department 93, we write and say *trois neuf*. This way, we know at the end of the statement whether it's thousands or billions.

That's enough to say a number in isolation, but if the number applies to words that follow it, the end of the syllabic numeral enumeration must be signaled.

In writing, it's quite simple: you put the apostrophe just after the digit of the highest power of ten, a procedure reminiscent of Hebrew. The apostrophe in Toki IO (zito zoo ti zozi zoi, comma above) is a bit long to say, so we'd adopt the formula **zito io** (cypher punctuation), to designate and be able to say this sign expressly when it's not said in the binary litany.

So 1984 would be Toki IO :

io zo zizi [ti to zo i] zito io

The ampersand can be used to replace the written formula io zo zizi, giving :

&4891'

> *This system doesn't replace the normal binary base of Toki IO (why use ten digits when two are enough?), but it does make it easier to say, read and write the digits of the decimal system than expressions like "the image of ii is next to the image of io'oi' in a base-10 system", even though these formulations remain perfectly legal.*

CURRENT NUMBERS
O (or 0) is zero in all bases.
I (or 1) is the one in all bases

OI > corresponds to decimal 2
II > corresponds to decimal 3
OO'I > corresponds to decimal 4 **note the zero above the 2 on the left.**
IO'I> corresponds to decimal 5 (1+4)
OI'I > corresponds to 6decimal (2+4)
II'I > corresponds to decimal 7
OO'OI> corresponds to decimal 8
IO'OI > corresponds to 9decimal
OI'OI > corresponds to the decimal 10 **note the double zero more than the 5.**
II'OI > corresponds to decimal 11
OO'II> corresponds to decimal 12
IO'II > corresponds to decimal 13
IO'II > corresponds to decimal 14
II'II> corresponds to decimal 15
OO'OO'I > corresponds to 16 decimal **note the zero more than the 8.**
OO'IO'I > corresponds to 20 decimal (16+4)
OI'II'I > corresponds to decimal 30
OO'II'II > corresponds to decimal 60

Comparisons: Numbers expressed in base ten are generally more concise than those expressed in base two, while those expressed in base sixty can also be said to be more concise than those expressed in base ten. But when we consider not the numbers but their expression in letters, things aren't so clear-cut. Judge for yourself: 3254
 In Danish, for example, a number like 3254 is expressed by juggling the bases ten and twenty; it's expressed as 3 thousand 2 hundred 4 and half of the 3rd times 20, i.e. tretusindetohundredefireoghalvtreds.

 Roman numbers: MMMCCLIV Decimals:
 3254
 binary: 110010110110 Toki
 IO: oi'io'ii'oi'oo'ii

 Toki IO: ii'oo'io'io'oi'io > 12 letters and 12 syllables
 french: trois-mille-deux-cent-cinquante-quatre >> 32 lettres et 9 syllabes
 danish: tretusindetohundredefireoghalvtreds >> 35 lettres et 12 syllabes
 english: three thousands two hundreds fivety four > 35 lettres et 10 syllabes

Toki IO accepts all mathematical signs, just like any other language. The difficulty lies in naming them. For letters in alphabets other than Toki IO (which has only six letters: i, k, n ,o ,t ,z pronounced: [i] [ik] [in] [o] [it] [iz]), we use the international phonetic alphabet.
example: A will be said [a] and μ will be said [my].

geometry: noi io the number of the earth .

Geometry can only be approached succinctly in a language as poor as Toki IO. Nevertheless, there are words to express the basics of Euclidean geometry (for the others, we'll wait for the skills, but it would be curious if it were possible).

Here are a few words:
iti: line in general > therefore a curve; iti
tino: a stable line > a straight line
iti nizo: an ordered line > a vector iti toti: a
squared line > a plane
iti tino ko: a divided straight line > a half straight line (strictly: iti tino ti ko) iti
toko: a broken straight line > a straight line segment
iti toko toti: a straight line squared > a square (strictly: iti toko ti toti) to iti: a point
on a curve
to iti toti: a point on a plane (a bi-point, a point determined by two coordinates) (strictly: to ti iti toti)
kono: an angle
kono zo ii: a triangle (*** ii kono : three angles ; kono ii : third angle) kono zo
io'oo : an octagon (*** io'oo'ii kono : 35 angles)
siko : circle
(?) siko siko: a sphere
* iti toko toti ii: a cube (strictly : iti toko ti toti ii)*
*** Numbers are placed before nouns. You can form a compound word by following a word with a number, just as you would with any other word in the language by inserting the particle ZO (see grammar version 3). It seems that rigor in this area isn't always up to scratch. Everyone is welcome to correct the author's oversights: this hyphen was only systematized in version 3 of Toki IO, and perhaps not all examples have been updated.

logic and sets

Like numbers, the NO negation modifier is placed before the word it modifies.

A>B : [a] zoi [bi]
A<B : [a] zoo [bi]
Together : tozo
Ordered set: tozo tino io ("stable set number")
Implication: toti (beware of possible ambiguity with toti used to mean "power")

```
A + B : [a] oto [bi]
A x B : [a] ito [bi]
non A : no [a]
A = B : [a] iko [bi]
A | B : [a] ono [bi]
A element of B (A B): [a] to [bi].
A does not belong to B (A B): [a] no to[bi]
A included in B (A    ):[a] zoni [bi]
A contains B (     AB): [a] ki kiti [bi]
```

trigonometry: kono ii io the number of angles

The circle is called
 ziko The angle is
 called kono
 The sinus is called "serpent number": ziti io
The tangent is called "height number": zozi (zozi) io ("The Egyptian Al-Hasib, nicknamed "the
Calculator", studied the properties of the tangent function at the end of the 9th century. This is why
Al-Hasib himself defined the tangent as the ideal tool for measuring heights."
http://www.trigofacile.com/maths/trigo/notions/fonctions/tangente.htm *)*

NOTE:
the Toki IO number system can be used in any language using an alphabet in which
the letters I and O have roughly the same shape as 1 and zero, and correspond to
vowels. This is true for English, French, Spanish... just about any language using a
Latin, Greek or Cyrillic alphabet. For other languages, I don't know.
This system, which unites calculation, writing and diction of the number, is
practical for using a two-digit base system.

Time

the Toki IO has some difficulty in elegantly expressing ordinary time, but it doesn't shy away from it.

A quick reminder:
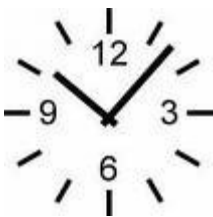
*> There are only two native digits in **Toki IO,** I and O, which are pronounced and written I and O*
respectively. Numbers are written from left to right, starting with the unit.

As this is a binary system, we have the following entries for decimal numbers:

I	RO	II	OO'I	IO'I	OI'I	II'I	OO'OI	IO'OI	OI'OI	II'OI	
1	2	3	4	5	6	7	8	9	10	11	12

Kozo ziko ozi noti	Here's a clock characterized by hour and minute cycles.
	The Toki IO uses an expression like "O'clock" to express the time on an ad hoc dial.
	Kozo ziko ozi noti (the round thing of written time) is equipped with two hands, oblong sticks, one small (**zizi zoo**), the other large (**zizi zoi**).

- *What time is it?* Zoni koo io zizi ti kozo ziko ozi (Where are the two hands of the round time object?) or abbreviated: Zoni koo zizi ozi (Where are the two hands of the round time object?).
- The answer is: *the small needle is on the 10, the large on the 7.* Zizi zoo ti kozo ziko ozi ki zo oi'oi, zizi zoi ki zo ii'i. or abbreviated if the context allows Zoo oi'oi, zoi ii'i.
- (As in French) we can express the quarters and half of an hour by dividing the circle: ...and quarter (of an hour) ...zoi ziko ko o'oi ...and half ...zoi ziko ko ... minus a quarter ... no oto zoi ziko ko oo'i or abbreviated if context permits: 1/4 ...zoi ko oo'i; 1/2 ... zoi ko ; -1/4 ...no to zoi ko oo'i

* *

Pronunciation and tonic accent

Toki IO is normally stressed on the first syllable of a word. Single-syllable words are therefore always stressed. In disyllabic words, the stress may be accompanied by a slight lengthening of the vowel.

Given their lack of differentiation, it's important to always accentuate words, so as not to confuse "Zo Zo" with "Zozo", for example.

Academic pronunciation corresponds to the International Phonetic Alphabet. By definition, Toki IO uses this alphabet. However, a large degree of tolerance is allowed, as there is little confusion between vowels and consonants.

The two vowels O and I never form a diphthong. Their pronunciation is subject to variation by speakers of different mother tongues. However, the gap between the two vowels must always be clearly marked. If the O were pronounced [u] and the I were pronounced [a] or [e], there would be no great harm.

25

In the same way, consonants allow great latitude. K could slide towards [g], T towards [p] or [d] or [b]... and the balance would not be upset. Ditto for N, which can be [n] or [m], and S, which tolerates [s] or [z]. But some words with a Greek etymology may prove more recognizable in the official pronunciation.

The semantic subtleties of the tonic accent.

The tonic accent cannot vary on monosyllables. Note that IO and OI have two syllables each, as there is no diphthong.

On the other hand, accentuation can be used incorrectly to change the world of discourse.

- an accentuation of the two syllables, accompanied by a lengthening of the vowels, signals the domain of shared intimate tenderness. Used outside this context, the words take on a saucy undertone.
- a strong accentuation on the last syllable alone transforms the word into an insult, often coarse or vulgar, and so on.

This expressive accentuation can be rendered in writing by marking vowels with an acute accent (Ó *Í í ó*).

Toki IO accepts all mathematical signs, just like any other language. The difficulty lies in naming them. For letters in alphabets other than Toki IO (which has only six letters: i, k, n ,o ,t ,z pronounced: [i] [ik] [in] [o] [it] [iz]), we use the international phonetic alphabet.

example: A will be said [a] and μ will be said [my].

A little Solrésol-style delirium

Towards the end of the 19th century, François SUDRE developed an interesting language using only the seven syllables which, in France and Italy at least, are used to name musical notes. DO, RE, MI, SOL, LA, SI.
 Despite the desire to create a universal language, international success was not forthcoming, but who could remember thousands of words so similar to each other? Yet there's a lot of good stuff in this language. Let's have some fun by treating Toki IO in the same way as Solrésol.

Syllabary with numbers :

Toki IO has only ten different syllables (3 more than Solrésol, and for just 110 words, that's almost too many!

So let's take advantage of this happy coincidence to link each syllable to a number.
 0=o; 1=i; 2=Ki; 3=Ni; 4=Ti; 5=Zi; 6=Ko; 7=No; 8=To; 9=Zo .
This represents a 40% productivity gain! Huh! Captain Cap, what would you have said about that? The magic SMS!

Toki IO would be written according to this syllabary: ***82 10*** .

Shorthand syllabary

Professor Boleslas GAJEWSKI , who has done a great deal to promote the use of Solresol, created a character set to write Solresol quickly and independently of the Latin alphabet, making it readable all over the world. Let's adapt this system to Toki IO.
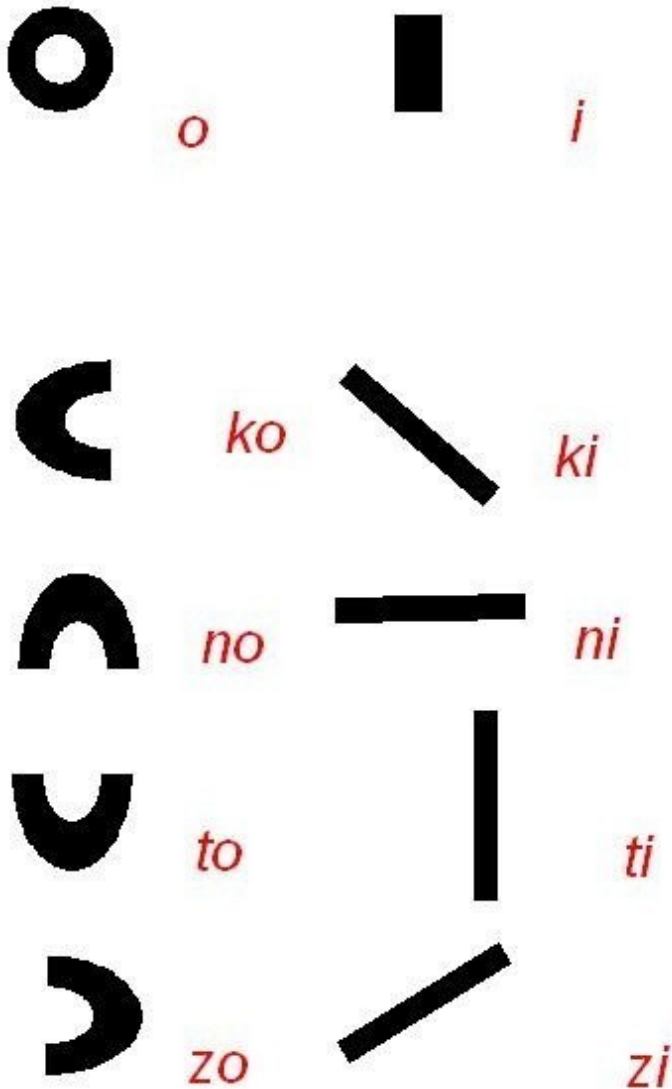
Japanese syllabary

Toki-io can be written using the Japanese hirakana syllabary. Since toki-io doesn't differentiate between **S** and **Z**, **M** and **N**, or even between **A, E** and **i** or **U** and **O**, we juggle with approximations to choose characters according to their simplicity of form.

あ　う
i　　o

こ　き　の　み
ko　　ki　　no　　ni
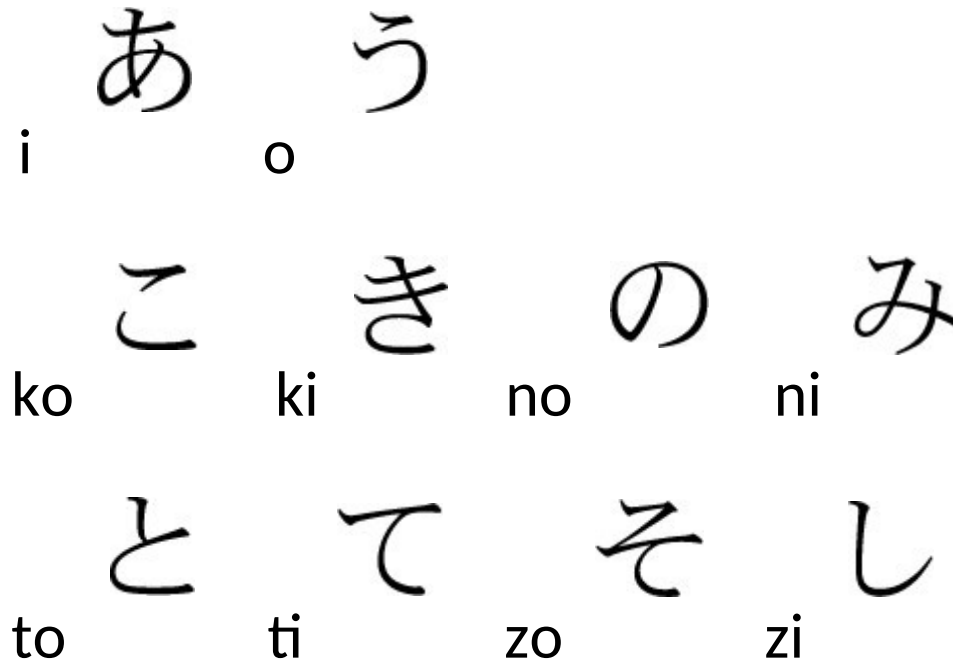
と　て　そ　し
to　　ti　　zo　　zi

Generally speaking, any alphabet can be used to create a Toki IO syllabary, as only 10 characters are required. The *lontara* alphabet, for example, lends itself easily to this, and by using a virtual keyboard you can easily write Toki IO in it.
graphics system.

Large gesture syllabary

We could communicate using Toki IO gestures (which would save on telephone charges between neighbors).

Intimate syllabary

Gently touching the fourteen phalanges of his interlocutor's hand,

i
o
ii
io
oo
oi
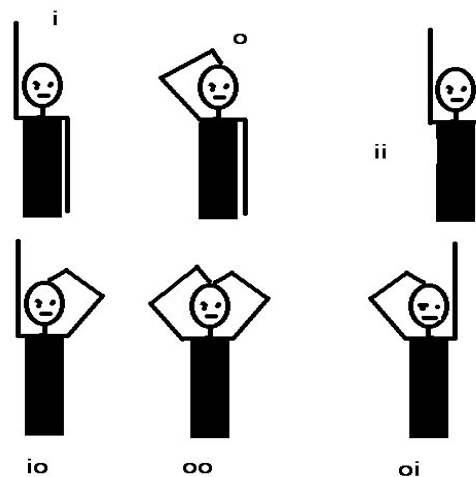
Les chiffres et les nombres en syllabaire "grands gestes" toki io

the Toki IO syllabary.

It's up to each of us to imagine a few situations where the pleasurable could be combined with the useful.

Appendices

an author's point of view

The Toki IO is in many ways a ridiculous creation. In all likelihood, no one will really be able to use it, due to a fundamentalist bias in the creation of words. I wouldn't advise anyone to put themselves through this kind of vocabulary training. I myself, despite the attention I've paid to it, doubt I'll ever be able to keep my words straight, but it's true that my abilities in this area are well below average.

That's not the point: it's just an artificial creation for fun, like crosswords, macramé or haikus. When I was learning Tokipona, it occurred to me that it was possible, *within the* limited vocabulary of this language, to express numbers and times more precisely than seems to be the recommended norm. As this would obviously offend a few thurifers, and as it's not my intention to upset anyone, nor to polemicize, especially in such unnecessary domains, I contented myself with creating a Tokiponiform language to explore the ideas that had come to me.

Toki IO is not an attempt to improve on Tokipona; in fact, it's worse: to the drastic limitation of the vocabulary it adds a poverty of phonemes that borders on the indecent and renders it, I suppose, unusable. One can console oneself by replacing each word in Toki IO with a word of one's liking, Greek-style, English-style, or any other basic language, thus obtaining a much less boring vocabulary. Communicating with someone else in this way may be a pipe dream, unless it's the other way round, and such a limited structure can work with vocabulary taken from another language known to the speakers. Subject to serious inventory, this would seem to be possible with French.

But I wouldn't want to denigrate the Toki IO too much, as it does offer a name for the snake: "Ziti", which adorned with the "Io" meaning number ("ziti io") is transformed into the sine of trigonometry, which in turn answers to the poetic name of "ii kono io", the *number of the three angles*. Horse and dog don't have names, but sine, tangent and cotangent do: a useful feature for sailors. "IO" means number, calculation, arithmetic, and "io io" is used twice for algebra, according to the superlative rule. Geometry, the *number of the earth*, is expressed by the adorable "no io".

It's easy (with a little practice, perhaps?) to juggle with logic and set theory, where "O" stands for empty set and "toto" for "i + no i". Nothing better to liven up a breakfast.

I had chosen to have fewer vowels and fewer consonants than any known language, and had counted 90 possible words with 4 consonants and two vowels. Obviously, gageüre presented too many difficulties, so I realized that, having already admitted IO as a word, I could obtain other words by admitting the terminal hiatus, hence : KIO, KII, TIO…

Limiting the length of a word to two syllables on principle, I thus obtained 110 combinations. Phew! a hair less than Tokipona. As always, on principle, it was important to be able to express

numbers, times, geometry, logic and set theory, I had to remove words from Tokipona. This is how I introduced the notion of value modified upwards or downwards to express small/medium/large, white/grey/black...

A number of additional grammar rules - compared to Tokipona - are intended to reduce the ambiguity inherent in a language with a small vocabulary. The particle for compound words makes it possible to specify the noun or adjective role of a modifier, but I realize that I'm not applying it rigorously, and this point deserves further examination; the verb-announcer particle is extended to all persons; singulars and plurals are marked only if it matters, but a singular cannot designate a plural. The notion of "nothing" and that of "negation" are not expressed with the same word. Verb tenses, under the influence of Glosa, are expressed more systematically, offering the benefit of a present, a past, a future(conditional, an imperative and a conditional-anterior, to which for good measure we'll add a *durative* and an *immediative* mode.

The expression of the numbers follows different procedures from those of the Tokipona. Remember that this was the primary aim of the Toki IO.

We probably can't express everything in Toki IO, but there are no philosophical or religious limitations that forbid trying. If someone were to find ***internal possibilities*** in Toki IO to say what I'm not even able to contemplate, he or she would (probably) not be breaking any laws, and would obviously not be destroying the language. In fact, that's all the harm I wish Toki IO.

And we can always do without the Toki IO.

Daniel MACOUIN November 2006.

Fifteen years on

I went back to Toki IO fifteen years later, because the grammar was a little unfinished. This was an opportunity to slightly modify the vocabulary to clarify certain rules. As I don't suppose anyone, at least not me, had learned the previous list, it's not a problem. It seems to me that things don't stick so much any more, and that the syntax is congruent. That's what I was aiming for.

On the other hand, there's no noticeable improvement in lexical richness: "one hundred and ten words" remains the rule, and there's no question of translating Victor Hugo's Les Misérables into Toki IO. But I'm rather pleased with the ZO hyphen, which, despite taking up one of the 110 slots in the dictionary table, is a useful luxury for creating compound words to extend the language.

There can be no official list of compound words: they are freely created by the potential speaker, and no authority validates or prohibits their use. Only the clarity of the compound word's construction is the criterion of interest, and finding words as expressive as washing machine or dishwasher is far from obvious. As the Toki IO is no more usable than it was in its early days, with words stubbornly failing to become more memorable than they once were, outside of intellectual play its interest is almost nil.

Nevertheless, as the weather was conducive to optimism, I've grouped the vocabulary into eight lessons to make it easier to learn, should an unconscious person wish to take the risk.

I've numbered the version with a 3, which should be definitive. This document in PDF format will, if someone keeps it somewhere, survive for a while the disappearance of my personal site on the Internet.

After that, so much for the wind!

Daniel MACOUIN May 2021

My little vocabulary tests in toki io

By nature, there are only one hundred and ten words in toki zo io. But you can create your own words, in the hope that they will evoke in the listener or reader what you want to express. In this case, we use more or less relevant descriptions. The exercise quickly proves difficult, which is one of its few advantages.

When it comes to compound words, there isn't, nor should there be, any kind of authoritative list. Especially not on my part, because, although I'm the author of Toki IO, I don't claim to be the best person to use it. It is therefore highly probable that the examples I write here are sometimes poorly constructed, if not totally unfit for consumption. Nevertheless, I'm trying them out and discovering combinations I hadn't even considered. In fact, language is full of possibilities that derive from the rules laid down, and it was difficult for me to grasp all the consequences. Far from distressing me, I'm actually delighted by this characteristic. When I resumed toki io after a long seventeen-year slumber, I found a system I hadn't thought of for saying base-ten numbers without increasing the vocabulary, which is limited to one hundred and ten words.

Let's get down to some practical work.

First, a simple example: lizard.
As there's **zini** for snake, serpent à pattes could designate a lizard: **zini zo noto**. The compound word form thanks to **zo** seems more obvious to me than **zini noto**, where **noto** would be an adjective with an unclear meaning. From there, we could derive crocodile or even dinosaur by looking for an evocative image, as we did in French when we created dino-saure with Greek words (terrible lizard or magnificent lizard).

In a more abstract domain, for those who need to say God, an expression like "the Almighty" could fill this role: **toto zo toti**. This distinguishes him from **toto toti**, which would be the omnipotence or all powers.
If, like the ancient Greeks, you have to deal with several gods, you can say **i toto zo toti** for one of them; or **too toto zo toti**, for several gods or gods. Aphrodite, the goddess of love, could be **toto zo toti niko** (or **niki** for those who prefer this conception of love), and if we insist on it, we should be able to express her feminine nature. For Aeolus, the god of wind, I'd suggest **toto zo toti nito**. Vulcan could probably be evoked with metal and fire. There are some for whom this won't be so easy.

To make things even more complicated, let's go back to the grammar example of the wet house. So **koko zo nino** would be an expression for the water tower, whereas **koko nino** is the wet house, and again **koko ko zo nino** can mean the shower room, **ko meaning to** divide, room, piece, etc. Koko ko nino indicates a wet room, hence the interest of zo. **Koko ko nino** indicates a wet room, hence the interest of **zo**. Moreover, **ko nino** can express a "wet crack" and designate an oozing wound, for example in a hospital ward.

traumatology, and **nino ko** would indicate splashes or drops of water, and **nino ki ko** would be the water that breaks, hence the torment of the drop of water in an ad hoc context.

And what might we call the bathtub, the swimming pool?
Bathtub: **kiti zo nino zo nii**, meaning water-cleaning container. But it could also mean a washbasin. It should be possible to specify the size if necessary.
Swimming pool? **zoni ti iko iki zino**: where (place) human like fish. Of course, it could also be a lake or the sea. A pool in a building would be a house where man is like fish.
Piscine could also be called **koko zoni ti iko ki kino iki zino**, a house where people move like fish. I leave it to your imagination to name an aquarium for toy carp.

What about the animal kingdom, apart from the generic terms mammals, insects, snakes, birds or fish?

The whale comes quickly to mind as a large mammal-fish. Here the words exist in toki IO, so we start with the easy stuff: **zino zini (ti) kiko zoi**, i.e. large mammalian fish. It doesn't seem necessary to use **zo** here, and **ti** may not be required.

But horse or dog? Okay, they're four-legged mammals, but so are pigs, elephants and mice. You'd have to find typical characteristics for each of them, bearing in mind that, depending on the context, you might have to make do with a larger or smaller quadrupedal mammal.

Pour l'éléphant, "gros-mammifère-prendre-par-le-nez", **zini kiko zoi ti zizi ki nito ti tiko iki ti toi zoi** (a large mammal whose blowing stick is used like a hand).

For the dog, "mammal-aboy-keeps-house", so **zini ki nozi ti ki oko zi koko**. But I loved the animal's guardian characteristic. There's nothing universal about this; a dog can be food for a Chinese person, and a clever language like MaCuSi designates it as an animal that loves man. Anyone who's been bitten is entitled to a different opinion. Just goes to show that compound words aren't as obvious as you might think when you create them.

For the horse I didn't find it and for the rest I didn't look. DM.

December 2022

Universal Declaration of Human Rights

Article 1

All human beings are born free and equal in dignity and rights. They are endowed with reason and conscience, and should act towards one another in a spirit of brotherhood.

Toki toi toto zi zoko tozo ti iko
ko noti i

too iko ki ini zoi ti no zozo oto iki ti zoko tozo. zio zoi ki zozo zi noni kozi oto kizo zo tini ti ti oto ki no noki zi iko tii zio zoi ki oni nono toni zoi.

Comments

A number of abstract notions are untranslatable in *toki io*, so it's possible that it's simply that they're nonsense.

For the rest, there are some difficulties in following the French form, as the grammars do not coincide. Nevertheless, the exercise has been attempted, with efforts to clarify the original concepts.

- **libre**: *no zozo*: not property, i.e. not someone's property. The term freedom is defined by its opposite, slavery, being someone else's property. *No zozo* means not to be someone else's asset, i.e. to be a free human.

- **rights**: *zoko tozo*: the community method. Since rights are only defined within a human community, they are rules linked to a particular community. The declaration considers the whole human community, from *toi toto* "all the earth" in *toki io*.

- **consciousness**: *kizo zo tini*: a compound word combining will and feeling. This is no less relevant than many definitions of consciousness.

- **reason**: *noni kozi*: to make inferences is to reason.

- **To act towards others in a spirit of brotherhood**: *ki no noki zi iko tii zio zoi ki oni nono toni* zoi translates as "not to wage war against humans and to act as a good parent", *nono* being a generic term referring to children as well as parents, kinship in the broadest sense. [The story of Cain and Abel would not fall within the scope of fraternal action].

- **Dignity**: the term has not been translated, as I haven't found what it covers other than, at best, an abstract redundancy of equal rights.

Nevertheless, I urge the reader not to consider this translation as emanating from the supreme authority. If anyone can do better, so much the better.

∭

Eight vocabulary lessons

To help you memorize the Toki IO words, here are a few short lessons that group the words in an order based on proximity of meaning. Obviously it's arbitrary, but it's better than nothing.

Don't try to learn everything at once, unless you're really gifted. One well-rehearsed lesson a day is preferable. In theory, you'll know the vocabulary within two weeks.

*Some words are easy enough for a French speaker to memorize, like **zizi** for stick or oblong object; or **oti** for hear, close to the Franco-Greek otite, or **oko**, to see, like occulist. Look for your own associations to remember the words in toki-io. For example, **zizo** makes me think of z'oiseaux.*
*Alas, most words have no particular resonance. But we can find interesting associations like: **n[ino]** is water and **z[ino]** is fish, which helps you memorize by distinguishing **zino** from **zini, which is** the mammal.*
*If you know Quetchua, you'll associate **kiko** with the language's "kika", which translates as "big" in French.*

Alas, on the whole, everything is pretty arbitrary, but we've learned dog for dog, bird for bird; so why not **tiko** for stone or **nito** for metal?

* * *

Lesson one

A few very important words, as they are often used in speech: basic numbers, grammatical markers and two common words.

The numbers

i one

o zero

oi two

ii three

io number, figure

Markers

koo interrogative marker (is it?)

ki verb marker

zi object marker
koi attributive marker

ti word separator

ti ti proposition separator

zo hyphenate compound words

zoi majorateur

zoo minorateur

a few key words

nor this, this

no negation

ono or, alternative

oto et, plus(+)

> **no oto**: less

> The OR is simply noted **ono** in a logic statement, but in an ordinary language expression, you should use **oto zo ono** if you want to avoid ambiguity with a simple alternative.

* * *

Second lesson

Pronouns

nio me, me, mine

tio you, well, you

zio he, she, him, his; the pronoun is neuter, man, woman, animal, thing, etc.

> **zio izo**: he, him, ;
>
> **zio ozo**: she ;

nio zoi nous (the singular pronoun followed by the majorator zoi)

tio zoi vous (plural only, there is no honorific form in toki io)

zio zoi they

> **zio zoi izo**: they
>
> **zio zoi ozo**: they

Human and body

iko human

izo male

ozo female

> **iko izo**: man ;
>
> **iko ozo**: woman

kio corps

tito tête (but also guide, commander, chef...)

noto limbs (arms, legs)

> **noto zoi**: arms ;
>
> **noto zoo**: leg
>
> **noto noto zoi**: hand; **noto noto zoo**: foot (arbitrary use of the superlative)

niki sex

niko love, love

nono kinship, mom, dad, parents, baby, child, etc.

> **nono zoi**; ancestors ;
>
> **nono zoo**: descendants

toki speak, language

nozi cri (man or animal, or even something that squeaks), to shout

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Lesson three

Colors **kini**
yellow
tono red
izi blue

> *The other main colors are obtained by mixing according to Chevreul's color wheel theory:* **kini tono** *(or* **kini zo tono***) orange;* **tono izi** *purple;* **izi tono** *violet;* **izi kini***: green.*

zono gray
> ***zono zoi*** *: white ;*
> ***zono zoo*** *: black ;*
> ***zono zoo zoi***: *dark gray [lightened black];*
> ***zono zoi zoo*** *: light grey [dark white])*

Sensations and actions
oti hear, sound.
oko see, look.
toi smell, smell
titi sweetness
> ***titi zoo***: *bitter, hard ;*
> ***titi zoi***: *sweet*

tini feel, emotion
kizo want, will

kino movement, go, move
> *[Cinematograph could be said* **oki oko zo kino***, meaning sheet(screen)-view-movement].*

kito use
ino don, to give, to issue
koi attributive marker

oo interjection used for everything (oh! Ho ho! Ah! Ah?)
> ***oo zoo!*** *depreciative interjection (bah! Beurk!)*
> ***oo zoi!*** *appreciative admiring interjection (Bravo! Very good, not bad)*

* * *

Lesson four

Beings and things

ini be, beings

> *ini zoi* naitre, commencer ;
> *ini zoo* die, finish

zozo avoir, assets
kozo things
kizi plants, herbs
kiki fruits

koko maison, cocon
oni tissus, vêtements
tizi mobilier, furniture
zizi baton, oblong object

zini mammal
zino fish
Ziki insect
zizo bird
ziti snake

tiko pierre
noko metal

* * *

Lesson five

Elements
nino water

niti fire flame burn

nito air, wind, blow

noi earth

oki leaf (tree, paper, metal...)

ozi time (passing)

tiki   light, sun,   day

tizo   temperature
> ***tizo zoi***: *hot*; ***tizo zoo***: *cold*

qualities and actions
kiko size, size, measure, measure

> **zozi zozi kiko zoi**: large; ***zozi zozi kiko zoo***: *small*
> **zoti zoti kiko zoi**: fat, thick; **zoti zoti kiko zoo**: lean, thin
> *zoto zoto kiko zoi* wide; ***zoto zoto kiko zoo*** *narrow*

tino stability, balance, balance

toni bonté
> ***toni zoi***: *good*; ***toni zoo***: *bad*

tozi mood
> ***tozi zoi*** : *cheerfulness* : ***tozi zoo*** : *sadness*

zii density
> ***zii zoi***: *hard*; ***zii zoo***: *soft*

nii state of cleanliness
> **nii zoi**: clean; **nii zoo**: dirty

* * *

Lesson six

shares and statuses

kizo will, to want
noni make, work, manufacture
noti writing, drawing

kozi inference, cause
nozo sommeil, sleep
koni to know , knowledge

toko error, accident; break, smash
noki conflict, war, fight; to fight, battle

koki food, eating

noo hole, opening, open

nizi crazy, strange, scare, disturb
nizo order, orderly, tidy, regular
kiti container, bag, tub, put in a container

nini noun, to name

* * *

Lesson seven

iki: identical, same, similar > **no iki**: different, not the same

kini : some, any

too: all, total ;
>> **too too**: too much

tii: but, however; future-conditional marker

zoni: place, location; where ;
>> **zoni zoi**: outside; **zoni zoo**: inside

Mathematics

toti pouvoir [**toti toti**: power]; mathematical power

oto and, plus, addition
ito multiply, multiplication, iteration
ko division
to element of; atom, particle, point (geometry)

iti line
kono angle;
>> **kono kono**: cone

ziko cercle, cycle ;
>> **ziko ziko** : sphere

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Lesson eight

nini noun, to name, word.

tozo group, community, public

koti cost, price, currency ;
>   **koti zoi**: expensive; **koti zoo**: cheap

zoko path, road; method

Space

koto flat, plain ;
>   **koto zoi**: mound, outcrop, hill ;
>   **koto zoo**: hollow, hole, valley

zoki side, side, hip ;
>   **zoki zoi** : far, far away ;
>   **zoki zoo**: close, near

Three words, ***zoti, zoto, zozi,*** *which mean middle, median, even center, but whose derivatives cover space in different ways.*

Zoti middle; horizontal depth >>zoto **zoi**: front; **zoto zoo**: back **zoto** middle;

width >> **zoto zoi**: right, right; **zoto zoo**: left, left **zozi** middle; height >> **zozi zoi**:

top; **zozi zoo**: bottom

Finally, to write, you need punctuation: **zito.**

Zito punctuation
>   **zito koo** question mark **zito**
>   **oo** exclamation mark **oi** colon
>   **zito**
>   **zito zoi** point
>   **zito zoo** comma
>   **zito io** digital number punctuation

Final reminder

ti is a separator used to split a string of modifiers so that an adjective-adverb applies to the entire preceding string and not to the last modifier.

ti ti (superlative of **ti**) is used to isolate the whole of a proposition.

zoi and **zoo** are modifiers that have arbitrary meanings depending on the terms they modify. There's not much you can do other than memorize these idiomatic expressions.

zo, on the other hand, is a kind of hyphen, making it possible to build compound words. This remains the responsibility of the speaker-writer. Each person creates the compound words they want, but others are not obliged to understand them.

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toki io (3_4) ; december 2022

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This document is a translation
of the french version directly by Deepl

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