Expanding the Swahili vocabulary

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1. Introduction ¹

The aim of this paper is to describe and analyse some of the newly adopted words in Swahili in the field of Information and Communication Technology (ICT).² This paper should be seen as an attempt to illustrate and classify how new concepts are dealt with in Swahili. It also provides a wordlist of approximately 200 entries and their sources. The report is by no means exhaustive.³ The words and phrases recorded here are either found in existing material and then verified by a speaker, or elicited from more than one speaker, and represent what is actual currency rather than a comprehensive study including low-frequency words and phrases. The relevance of this wordlist lies in its in-depth treatment of presently used words and phrases, not least as a complement to the many glossaries, where the lexemes listed are what experts believe ought to be used, although this does not necessarily reflect 'real life'.

Most of the material presented below has been sourced from the internet and supplemented by recent publications, such as the telephone operator Vodacom's quarterly magazine. The bulk of the data derives from Tanzania, but some of the internet sites originate from different countries such as Italy and the United

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A list of abbreviations can be found at the end of this paper.

³ For a more extensive list of technological vocabulary, see, for example, the Ngamizi Superversion (of approx. 3000 Swahili terms) which was developed for Microsoft by Kenyan and Tanzanian experts during the second half of 2004 (K. Legère, pc 2 March 2005).

Kingdom (see bibliography for details). Native Swahili speakers have also been consulted in interviews and via e-mail.

The paper begins with an overview of the Swahili language and its structure. Subsequently, a model (framework) for dealing with changes in the lexicon is presented, followed by a discussion of the new terms in Swahili. Finally, following the bibliography, there is an appendix containing newly collected technological terms in Swahili with an English translation.

2. The Swahili language and its loans

A substantial amount of the Swahili vocabulary is of non-Bantu origin, and most of it entered the language through borrowing. This is still taking place, especially in the form of what may be referred to as convenience borrowing. This means that when a new phenomenon in the language needs to be described, a word (or a concept) is imported, with or without adaptation. It is not uncommon for a language to make use of loanwords, cf. English which has imported approximately half of its vocabulary from Romance languages. The early borrowings in Swahili stem from Arabic and Persian while the more recent originate from English. Arabic is still by far the largest contributor. 'The lesser contributors to the Swahili lexicon are Persian, the Indo-Aryan languages (of Cutchi/Kachchi, Gujarati, Hindi, Sanskrit), Portuguese, Turkish German and French in descending order of importance' (Lodhi 2000:1). Today, the new words that are taken into the Swahili language all come from English. That is contrary to what Julius Nyerere stated in 1978. He declared that new words should, in the first instance, be sought for in other Tanzanian Bantu languages before foreign languages are considered (Legère 2002:172). This is of course impossible to follow nowadays where the opposite is happening. The other Tanzanian Bantu languages borrow technological terminology from Swahili, which in turn borrowed the terms from English.

There is no coordinated approach for dealing with loanwords in Swahili (Legère 1991:75). One example of this is how compounds are treated. At times the associate morpheme *a* is used, as in *kadi ya sauti* 'sound card', and sometimes not, as in *barua pepe* 'e-mail'. Though BAKITA (Baraza la Kiswahili la Taifa) and other institutions coin terms, there is no common method for dealing with new vocabulary in Swahili. The words that are borrowed today are related to technology, science, sports and modern entertainment. As stated earlier, this paper will solely focus on ICT vocabulary.

3. The Swahili language structure

Swahili is an agglutinative language, i.e. the morphemes are joined together. As in other Bantu languages, nouns are divided into sets or classes. Each class is roughly

Gender/ Class	Nominal prefixes	Examples	Semantic categories
1 (SG) 2 (PL)	m-, mw- wa-, w-	mtoto 'child', watoto	Names of human beings
3 (SG) 4 (PL)	m-, mw- mi-, m-	mguu 'leg', miguu	Names of trees, plants, nature, body parts, human activities
5 (SG) 6 (PL)	(ji)- ma-	chungwa 'orange', machungwa	Names of fruits, uncountables, everyday objects, persons, augmentatives, nouns of Arabic origin
7 (SG) 8 (PL)	ki-, ch- vi-, vy-	kitabu 'book', vitabu	Everyday objects, animals, body parts, persons, diminutives, languages
9 (SG) 10 (PL)	(N)- (N)-	nyumba 'house', nyumba	Abstract and concrete things, kinship terms, animals, natural elements, nouns of foreign origin
11, 14 10 (PL)	<i>u-, w-</i> (<i>N</i>)-	uso 'face', nyuso	Nouns of objects (class 11), singular abstract nouns (class 14)
15	ku-, kw-	kujua 'to know'	Verbal nouns
16, 17, 18	pa-, ku-, mu-	mahali 'place'	Locatives. Only one noun. The locative prefixes are primarily attached to other words.

Table 1. Swahili noun classes.

associated with certain semantic characteristics; there are classes for human beings, animals, plants, artefacts, abstract concepts, etc. The 15 classes (3 of which are locative) are numbered according to the Meinhof system. In Swahili, most foreign words are put into class 9 (with their plural in class 10). The infinitival form of the verb constitutes class 15. Many of the new verbs borrowed from English are put into this class such as *kudownload* 'to download'.

The verbs are complex and the verb phrase shows the fullest extent of the agglutinative word structure. The verb consists of a root which may have various derivational suffixes (thus constituting the stem). A typical affirmative verb form consists of a subject marker, tense/mood/aspect markers, optional relative pronoun,

optional object marker, verb root, and several optional verbal extensions. These define phenomena such as causative, passive, stative and reciprocal, plus a final vowel to signal the indicative or subjunctive mood. The subject and object markers either refer to or concord with the subject and the object of the clause respectively. All sentence constituents must agree with the verb in class and number and modifiers must agree with the head they modify. Below is a (non-exhaustive) template of the verb phrase. The parentheses signify that the segment is optional:

$$VP \longrightarrow (NEG) SM T (M) (A) (REL) (OM) V (EXT) FV$$

The ordering of the morphemes within a word is normally very strict, especially for the morphemes preceding the verb root. There are also certain restrictions on the combinations of the verbal extensions. In most Bantu languages for instance, the reciprocal marker cannot be placed after the passive marker and in Swahili, the applicative comes before the passive.

4. Dealing with contact-induced changes in the lexicon

There are two broad groupings: lexical borrowings which in turn can be split into loanwords and loanshifts, and creation where there is no corresponding item in the source language. Creation differs from the other borrowings in that it encompasses innovation based on patterns in the target language or creative extensions of a foreign pattern.

Loanwords involve a total morphemic incorporation of single or compound words with a varying amount of phonemic substitution. The phonemic adoption increases over time which is shown in a word like *kampuni* 'company'. There are however fully adopted words like *data* 'data' with no visible degree of phonemic substitution even though the pronunciation has gone through a certain degree of swahilisation. Loanwords can in turn be divided into ordinary loanwords like *kompyuta* 'computer' and loanblends. Loanblends involve the importation of a morpheme from the source language combined with a morpheme from the target language as in *kurekodi* 'to record'.

Loanshifts (also called coinages) differ from loanwords in that their form is the same as in the source language, but the semantic content undergoes an alteration in the target language. Loanshifts can in turn be divided into extensions or semantic loans and calques. Semantic loans are where an extension of the meaning is borrowed, as in *kuperuzi* 'surf', which stems from English *peruse*. In calques, the source language model is replicated by the target language, as in *ukurasa wa nyumbani* 'homepage'.

There are three types of creations. These differ from lexical borrowing in that they are innovations based on patterns in the target language which have no real

A. Types of borrowing, processes involved Examples used in Swahili

1. Loanwords

- i) Total morphemic incorporation of single or compound words
- ii) Varying degrees of phonemic substitution

mouse 'mouse' (also spelt <mausi>)

ripoti 'report'

2a. <u>Loanblends, derivational</u>

- i) Imported stem + Swahili affix
- ii) Swahili stem + imported affix (English inflections are never used in Swahili; see 5.2 below)

kudownload 'to download'

((ii) absent in data)

2b. <u>Loanblends</u>, compounds

Imported stem + Swahili stem

batani ya kwenda 'go-button'

3. Loanshifts, extension (semantic loan)

Shifts in the semantics of a Swahili word under influence from a foreign word

kuperuzi 'surf' orig. 'peruse'

4. Loanshifts, calque

Combination of Swahili morphemes in imitation of foreign pattern

kiendesha disketi 'floppy drive'

B. Types of Swahili creations, processes involved

1. Pure Swahili creations

Innovative use of Swahili words to express foreign concepts

barua pepe 'e-mail

2. Hybrid creations

Blends of Swahili and foreign morphemes to express foreign concepts imejaa dola 'pre-paid time (on mobile phones)' kirusi 'virus' (morpheme

substitution)

3. <u>Creations using only foreign morphemes</u>

Combination of foreign morphemes for new concepts

(absent in data)

Table 2. Lexical contact phenomena (based on Winford 2003:45)

counterpart in the source language. The first involves purely target language morphemes to express new concepts like *jina la utani* 'nickname' which stems from the East African concept of *utani* 'joking relationship'.⁴

The second type involves a combination of source and target language morphemes as in *kubeep* (or *kubipu*) 'to give someone a ring and hang up before they pick up so that they will call you back' or a combination of source and target language words as in *garimoshi* 'train' (literally: 'smoke/steam car'). *Gari* does not come from the English 'car' as one might think, but is of Persian/Hindu origin (Lodhi 2000:163). Furthermore, there are hybrid phrases such as *Simu yangu imekwisha dola* 'My phone has run out of units' (originally 'my phone has finished dollars') where *dola* has come to mean 'units'. *Dola* also carries its original meaning 'dollar/s' in other contexts. This category of creations also contains foreign words where a morpheme that was part of the stem has been replaced by a new noun class morpheme (see 5 below).

Thirdly, there are combinations of source language morphemes for new concepts. The morphemes then take on a new denotation. There are no occurrences of this in the data, but there are related concepts, though not within the field of ICT. A borderline case is kip(i)lefti 'roundabout' which comes from the English 'keep left'. Although this cannot be said to be a pure creation, it is an illustration of innovative usage of English inasmuch as it is the definition of a concept that is used instead of its name. Another case which is problematic to categorise is the onomatopoetic *pikipiki* 'motorcycle'. Despite the fact that it is not made up of source language morphemes, it is an illustration of a pure creation.

5. Comments on the Swahili data

It is not easy to explain the terminology out of context since the terms are employed in code mixing and code switching. Note also that the English version of the terms is the most frequent even though a coined Swahili equivalent exists. In daily speech, the English loanwords are used most of the time. In the wordlist (appendix 1) there is a noun *kibonyezo* 'key' which is not commonly used. Instead, it is either made into a verb in the imperative *bonyeza tab* 'press the tab key' or else the English *key* is used. The same holds for English *modem* which in Swahili would be *kifaa cha mawasiliano kitumikacho kati ya komputa na simu*. One of the reasons for not using this wordy phrase is the economy of expression. The shortest and most straightforward way of saying something is usually preferred by speakers and morphologically simple lexical items are favoured over more complex ones.

⁴ A joking relation can be defined as a patterned behaviour between kin that calls for taunting or ribald joking.

Nevertheless, the Swahili translations are used in schools, for example, when the teachers need to explain what a 'modem' is.

In Swahili, almost all ICT loanwords are nouns and verbs. According to Winford (2003:51) there is a hierarchy of borrowing which by and large puts nouns before adjectives, and adjectives before verbs. At the bottom of the scale are closed word classes like pronouns and conjunctions. Most of this, with the exception of adjectives, holds true for recent Swahili borrowings. There are nearly no borrowed ICT-related adjectives from English, partly because there are not that many in English to start with, and partly because pure adjectives are rarely used in Bantu languages. There are however other adjectival constructions but these are not as compatible for borrowing as nouns and verbs. What is more, nouns and verbs occur more often in contexts where they can be separated and extracted as loans without difficulty. The more tightly knit the morphemes are and the more morphologically complex the phrase is, the less compatible it is for borrowing. Since the Bantu verb phrase is not as tightly tied as an adjectival or, say, relative construction, it is more receptive to loans. Furthermore, the borrowed verb can be easily fitted into the Swahili verbal morphology. The claim that the verb phrase is not tightly tied is not altogether true; the subject, tense, mood and aspect markers within the verb phrase are tightly joined and come in a strict order, but there is a divide between them and the verb root which makes the verb root conveniently replaceable.

The spelling put forth here is according to pronunciation and it is not necessarily correct given that the words are not standardised (cf. the alternation between *kurikodi* and *kurekodi* 'to record'). The Swahili consonant-vowel (CV) syllable structure⁵ is kept which means that most loans are somehow modified. /i/ or /u/ are oftentimes added to maintain the open syllable structure, if the final phoneme is a consonant.

5.1 The nouns

It is uncustomary for the borrowed nouns to take the Swahili noun class prefixes. As mentioned above, most foreign nouns are assigned to classes 9 and 10 which do not have prefixes in Swahili either. There is however agreement on adnominals like adjectives, determiners and possessives, as in *kompyuta yangu* 'my computer'.

kompyuta i- 6 a- ngu computer:9 9- ASSOC POSS

Nasals can be either syllabic or non-syllabic. Vowels may be moraic.

⁶ The *i* becomes y due to glide formation.

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Borrowed nouns may also be assigned to classes 5 and 6, where the class five words do not display the prefix on borrowed nouns but the class 6 ones do, as in faili 'file'/mafaili 'files'. Apart from containing nouns such as fruits, uncountables or a few loanwords, these classes also express the concept of 'bigness'. Nouns belonging to other classes may take these prefixes when the meaning is augmented. This applies to both original Swahili nouns and loanwords. Gari moja 'one car' is predominantly used as a class 9 noun and its plural is gari nyingi 'many cars' (class 10). If it is assigned to class 6 instead, magari mengi 'very many cars' or 'many big cars', the noun becomes augmented. In this specific case, a semantic shift has arisen and the meaning has changed to 'a lot of traffic'.

On occasion, words are allocated to other classes depending on their initial CV sequence. The Arabic loans *kitabu* 'book' and *kibiriti* 'match' are thus assigned to class 7 with the plural forms *vitabu* 'books' and *vibiriti* 'matches' in class 8. The English loanword *video* 'video' is used as a class 9 noun by people who are accustomed to English. However, people who are not familiar with foreign languages assign it to class 8 because of its initial *vi*- sequence thus regarding it as a plural form. The singular 'one video' is then converted to *kideo kimoja*. This type of back formation is not commonplace, but it exists. *Waya* 'wire' (class 14) is another case of morpheme substitution where the plural is *nyaya* 'wires' (class 10).

5.2 The verbs

In contrast to most borrowed nouns, all borrowed verbs are inflected. The borrowed verbs lend themselves with ease to the Swahili inflectional morphemes. Most tenses and aspects can be used with borrowed verbs, as in *nimereboot kompyuta* 'I rebooted the computer'. Conversely, most verbal extensions cannot be used. The only ones occurring in the data are the passive in *kurekodiwa* 'to be recorded' and the applicative in *kukopia* 'to copy to/for'. This is not exceptional; declinations and inflections are more versatile than derivations. In Swedish, for example, borrowed verbs are inflected but never derived, cf. *jag har printat ut* originally *jag har skrivit ut* 'I have printed out', but *en utskrift* 'a printout' not **en utprint*.

The Swahili morphemes in the verb phrase concatenate in a strict order (see above). The borrowed morphemes/word always constitute a verb root and thus go into the V slot. No other constituents in the verb phrase can be replaced by a loanword. This is also valid for the auxiliaries⁷ in complex verbal constructions. This means that English inflections, for instance -ed in the past tense, are never found in Swahili.

⁷ Though the verbs function as auxiliaries, they are actually full verb forms.

For further illustration, let us look at this example of rap text showing how new words mix with existing Swahili ones:

namba unayobeep is not beepable jaribu tena baadae 'the number you have beeped (i.e. given a ring and hung up before they picked up so that the person would call back) is not available/beepable; try again later'

First, the loanword *namba* 'number' has gone through partial phonemic substitution. Secondly, the English word *beep* is first inflected using Swahili morphemes thus constituting a hybrid creation and then the second occurrence is derived into the adjective *beepable* which does not exist in English. The rest of the phrase is in (unmixed) Swahili. The versatility of new words in Swahili is vast and the phrase above is a fitting example of how to get the best out of two worlds. In comparison, the word beep does not have the same connotation in English and would require a substantially longer phrase (as its translation proves).

Finally, here is an instance of a hybrid creation where Swahili and foreign morphemes express a new concept. Mobitel was one of the first mobile phone operators in Tanzania and the name itself has come to symbolise portable phones. This has given rise to the expression *kimobitel(i)* meaning 'slender woman' (so slim she is portable). In this context, the prefix *ki*- (class 7) is used diminutively.

6. Concluding remarks

The paper has attempted to provide a preliminary description of new ICT terminology in Swahili and to show how it can be outlined and categorised. As demonstrated here, the recent loans in Swahili all emanate from English and are put into classes 9/10, 15 or to some extent classes 5/6. The borrowed verbs in particular readily take on the Swahili inflections. Borrowed nouns are as a rule not declined but take the agreements of the classes to which they are assigned. When translated, the resultant Swahili words frequently become longer and complicated. Because of the principle of word economy, the English terms are often used when speaking Swahili to avoid wordiness.

What are widely referred to as loans can be grouped into lexical borrowings and creation. Lexical borrowing is by far the most common, but Swahili also displays various instances of creation.

In a relatively new and unexplored field, this paper has attempted to describe how certain items of ICT-related vocabulary are adopted in Swahili. It is merely a starting point and hopefully an inspiration for additional research. This discipline is constantly evolving with new words appearing everyday. For this reason alone, it merits further investigation.

ABBREVIATIONS

9- subject prefix for class 9

A aspect

ASSOC associative index

CV consonant-vowel sequence

EXT extension FV final vowel

ICT information and communication technology

M mood NEG negation

OM object marker

PASS passive PL plural

POSS possessive pronoun REL relative pronoun

SG singular

SM subject marker

T tense V verb

VP verb phrase

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ELECTRONIC SOURCES (downloaded/viewed April-May 2004)

- [1] CPG Dragonfly <www.cpgnuke.com/index.php?newlang=swahii>
- [2] Duka la CD (Dhow countries Music Academy, Zanzibar)
 <www.zanzibarmusic.org/Cdshop_s.htm>
- [3] Glossario italiano-inglese-swahili di termini relativi all'informatico (di F. Aiello e F. Guadagna, revisione glosse a cura di Abedi Tandika)

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- [4] Internet ni nini? (na Hassan Omar, *An-Nuur* 184) <www.islamtz.org/an-nuur/184/teknoloji184.htm>
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- [17] Sayansi ya teknolojia: Windows mambo mazuri ya kuyajua (*An-Nuur* 211) <www.islamtz.org/an-nuur2/211/teknoloji211.html>
- [18] Sayansi na teknolojia: vizingiti vya ukubwa wa hard disk drive (na Hassan Omar, *An-Nuur* 217)
 www.islamtz.org/an-nuur2/217/teknoloji217.htm
- [19] Swahili leaflet 2002 <www.globalwomenstrike.net/Swahili/SwahiliLeafl2001.htm>
- [20] Tovuti ya kwanza ya elimu ya kompyuta «www.geocities.com/mtandaowetu/windozi3.html»
- [21] Wikimedia project discussions «meta.wikipedia.org/wiki/LanguageSw.php»

APPENDIX

Unless a source is given within parentheses, the lexical item in question is common and fund in several places.

Terminology that is borrowed and or adapted

- 1 adapta 'adapter'
- 2 analog 'analogue' (ES) e.g.used in: handseti hii inatumia mfumo wa analog 'this phone uses the analogue system'
- 3 *automatic* 'automatic' also -*a kujiendesha* (web [7])
- 4 back up 'back up' (ES) also faili la dharura 'emergency file'
- 5 betri 'battery'
- 6 data 'data' also ithibati orig. 'proof'
- 7 desktop 'desktop' (Ali & Mwikalo 2000)
- 8 digital 'digital' used in: kamera hii ni digital 'this is a digital camera', also spelt <dijiti>
- 9 disketi 'floppy disc'
- 10 diski 'CD' (Ali & Mwikalo 2000) ES: also kisahani orig. 'saucer' or 'discus'
- 11 diski ngumu 'hard disk' (web [3])
 ES uses 'hard disk' and has never heard this
- 12 display, kudisplay 'display (n) (v)' (ES) on mobile phones, also screen. Also used as a verb
- 13 faili, jalada 'file (n)' (web [5,13,3] also: jalada orig. 'book cover' and kabrasha 'pamphlet' or 'meeting dokument'
- 14 folda 'folder' (Ali & Mwikalo 2000)
- 15 fremu 'frame' (ES; web [7]) also kiboksi (web [3])

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- 16 hard disk drive 'hard disk drive' (Ali & Mwikalo 2000:37, et passim) also hadi diski draivu (web [10])
- 17 *hardware* 'hardware'
- 18 *installation* 'installation' (ES) also *muunganisho* (web [9])
- 19 intanet(i) 'internet' also mtandao (wa mawasiliano kwa njia ya kompyuta) or mtandao wa intaneti
- 20 isiyofaa, iliyokosewa 'invalid' (ES) also batili
- 21 *italik(i)* 'italic' (ES; web [3])
- 22 kadi ya sauti 'sound card' (e.g. Ali & Mwikalo 2000)
- 23 kampuni 'company'
- 24 kasa 'cursor' (ES; web [3,10]) also kionyeshi (web [5])
- 25 kirusi 'virus' (Ali & Mwikalo 2000:66; web [16,7]) in: virusi vya kompyuta
- 26 kuchaji 'to charge' ES: also kujaza umeme
- 27 kudownload 'to download' informally also kunyonya 'suckle or exploit' or kuhamisha nyaraka toka... kwenda
- 28 kuhighlight 'to highlight' (ES) also kuchagua 'to choose' (web [17]) and kuselect
- 29 *kukopia* 'to copy (to)' (web [20,8]) note the applicative form
- 30 kuprinti 'to print' (ES; JJ; and elsewhere)
- 31 *kureboot* 'to reboot' (web [17])
- 32 kurekodi 'to record' (e.g. Sauti ya Voda, December-March 2004) also kutunza 'store' or kunakili 'copy'
- 33 *kurekodiwa* 'to be recorded' ES: also *kuhifadhiwa kimaandishi* or *kunakiliwa*
- 34 *kutaipu, kuchapa* 'to type' (web [3]) or *kuandika, kupiga chapa*

- 35 *kuupgrade* 'to up grade' (ES) also *kuimarisha* 'to strengthen' or *kupandisha eneo* 'to improve the range'
- 36 *mashine* 'machine' (web [3]) also *mtambo*
- 37 *megabaiti* 'megabyte' (web [18])
- 38 *mikrofoni* 'microphone' (TUKI) also spelt <microphone>, or *kikuza sauti* (web [7])
- 39 modem/u 'modem' (Ali & Mwikalo 2000; ES; web [10]) also kiwiano (web [14]); RB: kifaa cha mawasiliano kitumikacho kati ya komputa na simu
- 40 *monita* 'monitor' (web [3]) also *skrini/screen*
- 41 *mouse/mausi* 'mouse' also *kipanya* (web [12,14]; RB)
- 42 opereta 'operator'
- 43 picha 'picture'
- 44 *printa* 'printer' (Ali & Mwikalo 2000) also *kichapishio*
- 45 programu 'program' (web [3])
- 46 promosheni 'promotions' (Sauti ya Voda, December-March 2004:36)
- 47 sakati 'circuit' (web [10]) also saketi (web [7]), and mzunguko umeme 'electric circuit'
- 48 saini 'signature (n)'
- 49 seva 'server'
- 50 skana 'scanner' (web [10])
- 51 soketi 'socket' (Ali & Mwikalo 2000:29)
- 52 spika 'speaker' (Ali & Mwikalo 2000:142; web [10]) also mzungumzaji
- 53 teknolojia 'technology'
- 54 waya 'cable' from 'wire', also kebo (web [10])

55 *vocha* 'voucher' (*Sauti ya Voda*, December-March 2004) rarely: *hati ya malipo*

Terminology that is translated (mostly into an existing word but with a change in meaning or an expanded semantic field)

- 56 *amri* 'command' (web [3])
- 57 anguko la seva '(computer) crash' (RB) ES: kompuyta imeharibika
- 58 anuani ya mtandao 'web page/address' (web [14])
- 59 barua taka 'junk mail'
- 60 batani ya kwenda 'go-button' (web [5]) also go batani
- 61 *chaguo* 'option' (web [14,8])
- 62 dirisha 'window'
- 63 *gombo* 'page' (web [7]) not common, *peji* is more used
- 64 *futa* 'cancel' (web [13,8])
- 65 futa kabisa skrini 'clear the screen' (ES; web [14]) also safisha
- 66 hakuna mawasiliano/network 'no connection' (ES) also seva iko down or network siyo nzuri or network iko busy
- 67 (barua pepe ambazo) hazikupokelewa 'undeliverable (mail messages)' (web [14])
- 68 herufi nene 'boldface' (web [3])
- 69 hifadhi kwa jina la/kama 'save as...' (web [3]) ES: also sevu kama...
- 70 huduma 'service'
- 71 imeunganishwa 'connected' (ES; web [14,15])
 RB: kuunganishwa (kwenye mtandao wa intaneti) 'to be connected' or iko connected 'I am connected'
- 72 *jina la u/mtumiaji* 'user name' or *jina la utani* (web [1), *yuza nem* (ES)

- 73 *kabrasha* 'folder' (web [14]) *folda* is also common
- 74 *keyboard* 'keyboard' also spelt <kiibodi>, also *kichapishi* (web [5]), and *yenye vipande vya kupigwa kwa vidole* (RB)
- 75 *kiashirio cha DOS* 'DOS prompt' (web [3]) orig. 'indicator of DOS', also *DOS prompt*
- 76 *kibonyezo (cha) ki/mbadala* 'alt(ernate) key' (web [3]) also *kibadilishi* (web [14])
- 77 kibonyezo (cha) ki/rejeshi 'back space' (web [3]) also kitufe
- 78 kibonyezo (cha) kiepushi, kiepushaji 'escape key' (web [3]) ES and RB claim these are not used
- 79 kibonyezo cha enta 'enter key' (web [3]) ES: kibonyezo cha kuendelea
- 80 kibonyezo cha herufi kubwa 'caps lock' (web [3]) ES: kaps loki key
- 81 kibonyezo cha huduma 'function key' (web [3])
- 82 *kibonyezo cha ingizo* 'insert key' (web [3]) ES: *insert/ingiza*
- 83 kibonyezo cha kudhibiti 'control key' (web [3]) also kisimamizi (web [14), kontrol key (ES)
- 84 *kibonyezo cha kufutia/kuondoa* 'delete key' (web [3]) or *kifutio* 'eraser'
- 85 kibonyezo cha mahesabu 'numeral key' (web [3])
- 86 *kibonyezo cha mpangilio* 'tab key' (web [14]) ES and RB claim this is not used
- 87 kibonyezo cha nafasi 'space bar' (ES; web [14]; Sauti ya Voda, December-March 2004:7) also space bar
- 88 *kibonyezo cha nyumbani* 'home key' (web [3]) ES has not heard this, instead: *home key* or *kibonyezo cha kurejea mwanzo*

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- 89 *kibonyezo cha shift* 'shift key' (web [3]) also *kuhama*
- 90 *kibonyezo cha ukurasa unaofuata* 'page down key' (web [3]) not used, instead *peji down key*
- 91 *kibonyezo kwa ukurasa uliotangulia* 'page up key' (web [3]) not used, instead *peji up key*
- 92 *kichapishaji* 'printer' (web [3]) *printa* is more common, also in Ali & Mwikalo (2000)
- 93 kiendesha disketi 'floppy drive' (web [5]) More commonly flopi draivu (ES) or floppy drive in Ali & Mwikalo (2000)
- 94 kifaa 'device'
- 95 kifaa cha kuhifadhia/kutunzia 'storage device' (web [10])
- 96 *kinga dhidi ya virusi* 'virus protection' (ES) ES: *antivirus* is what is actually used
- 97 *kiongozi* 'guide' (web [3]) *guide* is used
- 98 kionyeshi 'screen, display'
- 99 *kioo* 'screen (n)' (web [5]) *monita* (or *screen*) is more common
- 100 kioski/kibanda cha intanet 'internet café' ES: also intanet keif
- 101 kisanduko 'box'
- 102 *kisanduku (cha barua)* 'inbox' (web [4,8]) also *inbox(i)*
- 103 kiunganishi 'link, connector' (web [5,8]) orig. 'conjunction' RB: muunganiko or kiungo
- 104 *kizingiti* 'barrier' (web [18]; Ali & Mwikalo 2000:43) orig. 'threshold'
- 105 kuamuru or kuamrisha 'to command' (web [3])
- 106 *kubandika* 'to paste' (web [8,5]) ES: also *kupest*
- 107 *kubomoa* 'to dismantle/dissemble' (ES) also *kutenganisha*

- 108 kubonyeza 'to press' (web [3])
- 109 kubonyeza mara mbili 'to double click'
- 110 kuchagua 'to select' (web [3])
- 111 kuchapa, kuchapisha 'to print' (web [3])
- 112 *kuchapisha* 'to publish' can also mean 'to print' (web [16])
- 113 kufunga 'to close' (web [3]) ES: also kuklozi
- 114 *kufungua* 'to open' (web [3]) ES: also *kuopen*
- 115 *kufuta, kuondoa* 'to delete' (web [3]) ES: also *kudelete*
- 116 kuhifadhi 'to save' (web [5]) orig. 'preserve', ES: also kutunza or kuseivu
- 117 kuhifadhi (kama) 'to save (as)' (web [3]) ES: also kusevu kama
- 118 *kuingia kwenye mtandao* 'to log on to the net' (web [14]) ES: also *kulogin*
- 119 kumbukumbu 'memory' (web [3])
- 120 kuperuzi 'to surf, browse' (Sauti ya Voda, July-September 2003)
- 121 *kupiga chapa* 'to print' (web [7], and elsewhere) *kuprinti* is also commonly used
- 122 *kupitia* 'to surf, browse' (web [5]) ES: also *kusaaf* or *kubrauz*
- 123 *kurambaza* 'to navigate or surf' ES: not used, instead *kusurf*
- 124 *kurekebisha usawa* 'to align left and right' (web [3]) orig. 'to duplicate' ES: also *kualign* or *kupanga*
- 125 kurudufu 'to photocopy' also kutoa kopi
- 126 *kutafuta* 'to search, surf' (ES) also *kusearch*

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- 127 kutoa copi 'to photocopy'
- 128 kutoa nakala 'to print' (KL; MZ)
- 129 kutoa nakala 'to photocopy'
- 130 *kutum(i)a (ujumbe)* 'to send (sb a message)' (*Sauti ya Voda*, December-March 2004:37; JJ)
- 131 kuunganisha 'to install' (ES)
- 132 kuunganishwa (kwenye mtandao wa mawasiliano) '(to be) online' (web [3]; Sauti ya Voda, December-March 2004:31) orig. 'connect', ES: kuwa online or nimeunganishwa kwenye mtandao. 'I'm online' is: niko connected or niko reachable. RB: kuwa tayari kwa ajili ya mawasiliano
- 133 kuwasha 'to switch on, start'
- 134 *kuwasilisha* 'to submit'
- 135 kuzima 'to shut down, switch off'
- 136 kuzuia 'to block' (web [13])
- 137 masahihisho 'correction' (web [3])
- 138 *mawasiliano na teknolojia* 'IT and communications' (*Sauti ya Voda*, December-March 2004:21)
- 139 menyu 'menu' (web [3]) also orodha ya mambo or yaliyomo
- 140 *mfumo* 'system' also *system*
- 141 mfumo wa uendeshaji 'operating system' (web [3])
- 142 mistari chini 'underline (n)' (web [3])
- 143 *mlio/sauti* 'signal, ring sound' (*Sauti ya Voda*, December-March 2004:24, et passim) also meaning 'cry' or 'clink', *ishara* 'signal'
- 144 *mshale* (*mishale*) 'arrow, cursor' (web [3,5]) or *kionyeshi*
- 145 *mtandao* 'network' (*Sauti ya Voda*, December-March 2004) also used for 'internet' sometimes

- 146 *mtandao wa mawasiliano* 'network coverage' (*Sauti ya Voda*, December-March 2004:6)
- 147 mtumiaji 'user'
- 148 *ndege* 'aeroplane' orig. 'bird'
- 149 neno la siri 'password' (ES; RB; web [3]) also alama ya uficho or password
- 150 *ongea* 'chat (n)' (web [8,13]) also *chat*
- 151 *sanduku* 'box' also *boxi*
- 152 *tanbihi* 'footnote' (web [3]) orig. 'note', from Arabic
- 153 teknolojia ya mwasiliano 'IT' (ES) or IT
- 154 uchaguzi 'selection' (web [3])
- 155 uchapaji 'printing' (web [3])
- 156 ujumbe mfupi (wa maneno) 'sms' (Sauti ya Voda, December-March 2004) also message
- 157 *ujumbe ombi* 'query' (web [3]) also *swali* 'question'
- 158 ujumbe wa sauti 'voicemail' (Sauti ya Voda, December-March 2004)
- 159 *ukurasa* (*kurasa*) '(web)page' (web [3,5]) also *page*
- 160 ukurasa wa kwanza utakao funguka kwenye mtandao wa intaneti 'start/home page' (RB)
- 161 *ukurasa wa nyumbani* 'home page' (web [6,19]) *ukurasa wangu* is more common if you referring to your own page. Or *ukurasa wa pekee*
- 162 usalama 'security'
- 163 uteuzi 'choice' (web [3])
- 164 uunganishaji (wa mtandao) 'network connection' (ES)

Terminology that is invented (or innovative)

- 165 barua pepe 'email' orig. pepea 'husk' or 'blow in the wind', also imaili
- 166 deck 'tape or CD player or video'
- 167 huduma ya simu za mkononi 'digital wireless...' (Sauti ya Voda, December-March 2004)
 this is not translated but reformulated orig. 'mobile phone service'
- 168 *imejaa dola* 'there was pre-paid time' (*Sauti ya Voda*, December-March 2004:6)
- 169 jina la utani 'nickname' (web [8])
- 170 *kiambatanisho* 'attachment' (ES; RB) from *kuambatana* 'to stick together'
- 171 *kielezo* 'index (n)' (ES) from *kueleza* 'to explain'
- 172 *kipekuzi* 'browser' "from *kupekua* 'to investigate'
- 173 kuangalia ndani ya komputa makontent mbalimbali au kutafuta tovuti (websites) mbalimbali katika intaneti 'to browse' (RB) ES: also kubrowse or kutandaa (web [13])
- 174 *kubeep* 'to give someone a ring and hang up before they pick up' (ES; JJ; widely occurring on the internet) also *kubip/u*
- 175 *kujiandaa* 'to be standby' (*Sauti ya Voda*, December-March 2004) orig. 'to get prepared or provided' also *kuwa standby*
- 176 *kujitatiza* 'to crash' (web [3])
 ES never heard it but prefers *kujam* or *kujichanganya*, not found on the internet, orig. 'to mix yourself up'
- 177 kukwama 'to get jammed' (KL; web [14])
- 178 *kusafisha picha* 'to develop a photo film' orig. 'to clean photos'
- 179 *kutayarisha muundo wa disketi* 'to format a diskette' (web [3]) ES not heard it, would use *ku(i)fomat*

- *mchakato wa maneno* 'word processing' (web [3]) ES not heard it
- *mfumo wa uendeshaji wa diski* 'disk operating system' (web [3])
- *muda wa maongezi* 'airtime' this is not translated but reformulated
- 183 namba ya siri 'code (n)' (ES; JJ; widely found on the internet)
- 184 neno la siri 'password' (web [5]) also neno-siri (web [13]), mwandiko wa fumbo (web [21]), password
- *runinga* 'television' (web [7]; TUKI) ususally *televisheni*
- *sauti ya mtweto* 'beep sound' (web [3]) orig. 'gasping', also *beep*
- 187 simu 'phone'
- *simu* 'cellular' (*Sauti ya Voda*, December-March 2004:3) this is not translated but reformulated. *Simu*, in turn, comes from the Persian word for 'wire' or 'metal thread'
- *simu ya mkononi* 'mobile phone' orig. 'phone of hand'
- *tovuti* 'website' *tovu* is 'navel of ornament', also *website*
- *uso* 'display (n)' (*Sauti ya Voda*, December-March 2004) orig. 'surface', ES: *kioo* 'screen' or *dispaly*
- *utandawazi* 'globalisation' from *kutandazwa* 'to be stretched out' or *kutandaa* 'to spread'
- 193 wasiliana nasi 'contact us' (web [2])