



Online Tamil Error Correctors and Their Needs

Dr. K. Iyyappan

Guest Lecturer, Department of Tamil,

L. N. Government College,

Ponneri- 601204

Call: 9962660279

Email: agniiyyappan@gmail.com

Abstract

The role of computer in the development of Tamil language is immense. Don't be surprised if writing in Tamil becomes obsolete in the future. Tasks like typing, proofreading, editing etc. in English are easily done by computer. Nowadays typing in Tamil using input device is increasing. The fact that there is no spell checker facility in Tamil was a big drawback. Most of the input and output of Tamil is done through MS Word. This word app has got facilities for English word, serial errors. With this – Tamil word, serial errors cannot be removed. So separate software had to be developed for this. There is some debugging software available now.

A word error corrector called Vani and Tamil word corrector software called Navi were developed by Rajaraman, who goes by the pseudonym Neechalkaran. Just like there are many apps to correct grammatical errors in what we write in English, this app called Navi is used to correct grammatical errors in Tamil too. We can input what we write in small paragraphs into this processor and edit the junctions in it in a few seconds. There are no language editors like the one he created on the internet formally in any other language. Professor N. Deivasundaram's Menthamil Narrator (Amma Software) word app is software that helps to write Tamil without errors. It should be installed on the computer and input should be done through it. About MS word. It can be used for personal use just like word processor. It is recommended by Tamil Nadu Government and is now available for sale as Amma Software. Although some Tamil error fixers like these have been invented, the truth is that a simple error fixer is still not available to the Tamil computer world. However, this article explains about the currently available debuggers and their necessity.

Keywords:

Tamil Error Corrector, NeechalKaran, Deivasundaram, Vani, Navi, Amma software

Introduction

The computer industry is a major contributor to the development of Tamil today. While writing in Tamil is reduced to direct computer printing, Tamil works are understood through direct interactions with the computer. The use of computer in all stages like writing, beautifying and publishing is very close to Tamil. In this case, due to the speed of the computer, its mechanics, and manual errors during input, some errors also occur. To get rid of these errors and produce

healthy Tamil, you need specialized debugging software. Although this need has been greatly felt, it has not been possible to fully accommodate this need. Most of the input and output of Tamil is done through MS Word. This word app has the facility to correct English word and serial errors. With this - Tamil word, serial errors cannot be removed. So separate software had to be developed for this.

Currently there is some debugging software available in Tamil. Swimmer's typo-correcting software, Navi, and his speech-to-speech correction help correct errors to some extent. Amma software designed by Deivasundaram called Menthamil has not only a word processor but also other facilities. However, the truth is that a simple bug fixer is still not available to the Tamil computer world. This article titled "Tamil Error Correctors and Their Needs on the Internet" is an explanation of the error correction tools developed so far and their importance.

Error correction

In the field of computer science, "Errors are called bugs and error correction is called debugging."¹ Chellamuthu refers to "syntax error detection"² that occur while writing. In what we write, "Correction is an essential part of preventing errors from occurring."³ So many people who don't know grammar in Tamil need and need to develop more error correction related software to write Tamil without error through internet.

Tamil University Error Correction

An attempt to develop a spell checker and grammar checker for Tamil by Mr. RaJendran in the Department of Linguistics, Tamil University was carried out under the financial support of the University Grants Committee. It was based on a physical analyzer. Anusaraka scheme was based on the chemical analyzer. It is a paradigmatic approach. In this the verbs and nouns were divided into groups based on their phonological-morphological behavior and based on that verb forms and noun forms were analyzed. Words are indicated as correct if incorrect morphological analysis results. This study is based on this scale. This review has not been carried out further. However, the phonetic structure and morphological structure of Tamil were studied and information gathered. Olean visitation rules, Uruban visitation rules, word and series visitation rules were all collected and cataloged for computational linguistics analysis. An e-dictionary has also been created where the classification of words is identified."⁴

A revision of Tamil orthography by Dhanapalan et al

It uses typo correcting dictionaries developed by Dhanapalan, Ranjani Parthasarathy and Geetha for Tamil. Dictionaries with morphological and syntactic information that can be integrated into word analyzers and Tamil spellers are needed for the development of morphological and syntactic analyzers that can be used in more complex natural language analysis applications. "Tamil Error Corrector helps the user to identify most of the mistakes made while typing. The functions implemented in this error corrector are correcting the inflections and suffixes of nouns, correcting adjectives for nouns, correcting participles of verbs, correcting adverbs and correcting recent key errors."⁵ Applications of

Tamil debugger include word explorers, search engines, information retrieval and information retrieval systems, machine translation systems.

Tamil debugger creation by Vijay Shankar Ram

Vijay Sundar Ram explains in his 2012 thesis on the creation of a Tamil error corrector. The error corrector “helps you find wrong words in sentences and gives correct substitute words for wrong words. The first function is called “error detection”; the second function is called error correction or suggestion generation,”⁶ he writes. this will be useful for new debugger software developers in Tamil.

Deivasundaram's gentle Tamil narrator

Professor N. Deivasundaram's Menthamil Narrator word app is software that helps to write Tamil without errors. It should be installed on the computer and input should be done through it. About MS word. It can be used for personal use just like word processor. Tamil Keyboards, Unicode Fonts, Encoding Converter, Spell Checker, Sandhi Checker, Tamil Word Suggester, Dictionaries, Alphabetization Sorting), Indexing, This program is equipped with many facilities like bibliography, number->character converter (Number to Word Converter). It is recommended by Tamil Nadu Government and is now available for sale as Amma Software. Its current price is three hundred rupees. Get it and install it on your computer. Computer Tamil scholars indicate that its success rate is ninety percent.

Menthamil Narrator software has six types of dictionaries; 1. Tamil-English dictionary containing 45 thousand modern Tamil words, 2. English- Tamilnadu Rathi, 3. Synonyms dictionary which gives many synonyms of a word, 4. Antonym dictionary which gives antonyms of a word, 5. A dictionary of euphemisms containing meaning differences, used to avoid la, la, za, na, na, na, ra, ra in Tamil.6. Tamil Nadu Government Phrasebook Dictionary. Also, this software has various facilities like alphabetizing, vocabulary, converting any numbers in use into Tamil words according to Tamil punarchi rule, number-letter converter, and file converter.

Neechalkaran

Those who work in Tamil in internet and computer related industry will know about 'Neechalkaraan'. He is giving away the tools he created to swim in the internet sea for free to help others, creating new Tamil based software and taking Tamil to the next level on the internet. He is the creator of “Vani”⁷, the only Tamil spelling corrector on the internet. The real name of the Internet Swimmer is Rajaraman. Hailing from Madurai, he graduated with a bachelor's degree in physics and cleared the college campus exam in 2010 and joined a well-known software company in Chengalpattu in the technical department. After going to the northern states for work, he began to write poems under the pseudonym 'Swimmer', where he felt lonely. That's when he started uploading his poems on the internet under the name of Neechalkaran. “Basically I am not a Tamil buff or a computer buff, just a physics student. There are no Tamil experts in our family either. But, I grew up as a lover of poetry from childhood,” he says.

Navi bug fixes build history

The swimmer got a job in Pune and started blogging only after moving there. There were many spelling mistakes in his poems then. To fix it, he needed a piece of software. As he was not satisfied with the software in circulation at that time, he decided to develop software according to his needs. After that, he became interested in doing Tamil-based software research. That's when 'Navi', a typo correcting software tool, was born," says Rajaraman. The story of the birth of Navi for Rajaraman, who had neither proper computer knowledge nor knowledge of Tamil, developing such a bug-fixing software tool was not easy. For this he learned computer professionally. In all the spare time he had, he learned Tamil grammar along with the technical knowledge of software development. This is how Navi Bug Fixer was born.

Don't be surprised if writing in Tamil becomes obsolete in the future! Tasks like typing, proofreading, editing etc. in English can be done easily through the computer. The practice of typing in Tamil using an input device is increasing. The fact that there is no spell checker facility in Tamil was a big drawback. Currently there is some debugging software available in Tamil. Navi to remove spelling errors and Vani word editor to remove typos help in correcting a lot of errors. About these two debuggers can be found here.

Vocabulary Corrector - How to use

Up to 1000 Tamil words can be edited on a single page. You can control whether the tool should automatically correct errors or just point them out with the "auto correction" radio button. You can start editing by pressing the "Edit" (spell-check) button. You can remove the identification format by clicking on the "clear format" button. The "clear content" button clears the entire content and makes it ready for new use.

If a word is not in the tool's lexicon (maybe a bad word.) it will point to words in three different forms. Underline means there are no recommendations. Red means there are many parallel suggestions and green means autocorrected word. This only happens if self-correction is selected. Hovering over such words will display a new form. You can choose the recommendations from it. Or you can choose the user given word if the word is correct. Or you can replace it by writing the new word you want in the character box. "Replace" replaces a single word, "Replace (a)" replaces all words. You can correct errors in your creations by changing the above formatting words or choosing a suggestion. It features an easy-to-use WYSIWYG format interface and mobile device compatibility. "Vani"⁸ it will correct errors and give suggestions according to contemporary Tamil style. A common noun (name of a city, person) is corrected and understood.

It will recognize 70% of the sentences with different characters and grammar and suggest them. Suggests Tamil equivalents of more than a thousand English words. You can find many dictionary definitions in the dictionary on this site. It also understands the words that accompany the object. MEMBER REGISTRATION Editor's interface will be more convenient for those who register as a member.

File input

In languages like English, the Internet has the facility to directly examine a text and point out errors without having to type or copy and paste. The facility was introduced in Vani a few years ago. Test it by uploading (docx. rtf. txt) before publication of e-book or print book. Its "Procedure Explanation"⁹ videos are available on YouTube.

Chrome browser

Generally, if you type anything on the internet, you can edit it as a file or text on the Vani site. The recently introduced Vani, error corrector "Google Chrome"¹⁰ can be used to check errors on most websites including Twitter, Facebook, Wikipedia, within the typing interface. Like Grammarly in English, it gives direct, though not error-correcting, suggestions. We can learn about it through the "explanatory video"¹¹

Navi- Intersection Editor

In general, most language tools work in single language. But to help some publishers/offices that have not yet converted to monogram, the facility to accept non-monogram (Baamini, Vaanavil, TAM, TAB, TSCII) encodings was recently introduced. It says, "You can correct typos and junction errors without converting the Tamil content to monogram. A procedural description of how to edit."¹² It is noted that already about 50 encodings "can be converted to one by swimmer software"¹³. Only some of the key encryptions are included in it.

Grammar rules - Let's write Tamil without mistakes

Navi software is easy to use. The adverb is the first word in the script that takes two words into account. (Existing word) The second word that comes after it is the following word. In Tamil, k, ch, d, th, b, t are all six vowels. Between two words, the six syllable consonants k, ch, d, th, b, t are sounded in abundance. Among these, since words do not usually start with the special letters da and ra in these letters, the two monosyllables d and r are left out of the list. k, ch, th and p, are responsible for either superlative or superlative. If this monosyllable is not written where it should be written, or if it is written where it should not be written, then the monosyllable (a) is called a junction error. Although 'in terms of single errors we can know where valvotutu (g. ch, th, b) is high just by speaking naturally', we can see with some examples about vallinam mikum places and vallinam mika places for our partial understanding.

Navi software corrects junction errors with grammar rules. Tolkappiyam and Nannool Grammar Rules, Kavikko.Gnanachelvan's Let's Speak and Write Tamil Without Error! The Navi software corrects junction errors with the grammar rules found below based on the compilation, Tamil Internet University Grammar Lessons.

Tamil grammar dialogue

Tamil grammar is difficult for many students because it does not teach proper grammar. Systematize that grammar and create rules as a decision tree that is easy to learn. That means we can use technology to learn grammar. In that way chatbots are becoming popular globally for learning. At that level conversations can also be generated based on

rules as opposed to artificial intelligence. Tamil already has chat rooms like Aayithal Avini and E-Sevai. 2022 “A Tamil Dialogue for General Knowledge Questions”¹⁴ was introduced. Like that, today a dialogue has been introduced that teaches Tamil grammar.

Process description

“Vani Chatbot”¹⁵ gives the whole grammar in an interactive way rather than studying it in a textbook which will easily stand on the memory map. That way this conversation can be enlightening. There are still areas to improve. But even at this level it gives good explanations. As this is a menu based chat, it is currently not possible to chat in all ways. In the near future, natural language analysis techniques will be used for conversations. It shows the grammar techniques to be incorporated. Share with students who need it. You can use “Instagram Tamil Grammar”¹⁶ page to get tips in pictorial form. And this conversational framework can be applied to all sectors with clear intent. At present efforts are being made to create some more interlocutors in Thirukkural, Agriculture and Education.

Improvements in voice software

They will take some interest in writing the Grantham. In order to help them, “Grant Abolition Tool with Rules for Grant Abolition”¹⁷ has been published. The rules are there. Kottalam's “Kalavikut Database”¹⁸ is now updated. Contains about 1.16 lakh words of art collected on a private initiative. In Tamil Fonts “Four new Tamil fonts including Tamili developed by Senat Senthil are added here.”¹⁹ can be previewed and used.

New version of Voice Typo Corrector

New version of Vani Tamil Typo Corrector is out. The work also received the Canadian Literary Garden's 2015 Literary Award. An enhanced version of Vani with more data, more power and new luster with continuous research and development was released on International Mother Language Day Feb 21, 2019 by Lyricist Madan Karki on social media. What are the improvements in Voice Typo Corrector? Until now, when it showed a suggestion for the wrong word, it could be changed only after making a bulk selection. Instead, you can edit the document directly. That means the WYSIWYG interface has improved.

- Vani's advanced typo corrector is compatible with mobile devices. So now it can easily be used via mobile. Works well with modern browsers on platforms like Windows, Linux etc. Apple tools sync will be added soon.
- It will analyze about nine crore Tamil words with a total of 45000 words with five thousand new words in addition to the previous one.
- Suggest Tamil word equivalent for thousands of current English words. i.e. "went to the police station" instead of "went to the police station". A challenge to the business suggests "challenge to the profession". Thus, Tamil can be written without mixing English.

- Many aspects of statistical based Navi have been brought into speech based on grammar rules. This will detect and correct 70% of the junctions. If given "same object" it will remove unnecessary intersection and suggest "same object".
- In practice, it can also understand town names, male and female names of people etc. Names of areas where Tamils are widespread are often included.
- Recommends all the checks required to correct a typo, typo, punctuation, punctuation, etc. as usual. Understands only modern Tamil style. Suggests "university" even though it is wrong for university.
- Speech Spelling Error Correction software also has a built-in dictionary that works with the difference feature. In this, it recognizes many forms of a word (inflect form) and highlights its meaning from some major dictionaries.
- It also contains a significant amount of Sri Lankan Tamil words which are not practiced in present-day Tamil Nadu and are widely used. Similar to American and British English, Indian Sri Lankan Tamil cases may have separate categories in the future.
- With API facility, it can be used on any platform of choice. All the tools and all the tellers on the web can do this error correction.

Tamil Internet Academy typo removal software

"Tamil Internet Software Package -3" has been developed by Tamil Internet Education Institute, which includes 5 Tamil software's namely Tamil Internet- Debugger, Dictionary Compiler, Concept Analyzer, Phrase Compiler, and Data Analyzer. This software package was introduced by Former Chief Minister K. Palaniswamy. This collection of typos correctors is helpful for typists, Tamil book designers, Tamil book publishers, students, teachers, researchers. Identifying and correcting typos while typing Tamil characters on computer, finding meaning in dictionaries like Tamil Akaramudhali, Tamil Lexicon, Kathirvelu Pillai Dictionary, finding synopsis, grouping phrases in Tamil language, classifying Tamil words by their word count, finding and analyzing preceding words etc. can be used.²⁰ This package can be used for free by registering the required information on the website of Tamil Internet Education Institute.

In this way many error fixers are coming to Tamil computer world. These partially fulfill the user requirement. This sector needs to grow. Error correctors should come under Grammarly Corrector. Computer users are looking forward to them.

Conclusion

There have been many attempts to find error correction software in Tamil. The spelling and grammar correction efforts by Rajendran at Tamil University and the Tamil spelling correction efforts by Dhanapalan, Ranjani Parthasarathy and Geetha are commendable. Thus, there is no doubt that many bug fixes have been developed in Tamil. All of these are mostly in the form of typo correctors. It can be said that tools that are supposed to be grammatical error correctors are still

not perfect. Spelling correctors are also claimed as grammar correctors. Creating a grammar checker is a huge process. Deivasundaram's Amma Software and Swimmer's Voice Spell Corrector and Navi Junction Error Correctors are being used to some extent. However, the computer can function as a grammar corrector only if the computer is taught the ins and outs of Tamil grammar. A machine learning approach based on datasets can facilitate such operation.

The correct approach is for grammar editors to develop grammar rules based on how these rules are broken. As far as typo correctors are concerned, it is beneficial to have a good understanding of the phonological structure of the Tamil language and create a typo corrector based on that. The tricky part is that there are exceptions to every rule. The language is likely to lose its unique phonological structure due to borrowing from other languages. In Tamil there are restrictions in phonology such as some letters come first in the language, some letters come in the middle, and some letters come at the end of the language. And the arrival of trances is also subject to rules. Such language related information will be useful for developing better editors in Tamil. A columnist like me says that the Tamil Nadu government should continue to try to make the error correction software a widely used tool.

Bibliography

1. R. Krishnamoorthy, Computer Programming Basics & Fortran, J. J. Publication, Madurai, Reprint 1988, p.114.
2. Ga. Se. Chelamuthu, Knippori ozhungum becikmozhiyum, Tamil University, Thanjavur, 1985, p. 80.
3. Dr. K. Subpaiah Pillai, Iyarkai Mozhiyayvu Thamizh, World Tamil Research Institute, Chennai, 2003, p.276.
4. Prof. Rajendran Shankaravelayuthan, Dr. Ira. Amuda, Spelling and Grammar Correcting in Tamil, Coimbatore, 2012, p.199.
5. Prof. Rajendran Shankaravelayuthan, Dr. Ira. Amuda, Thamizhil Ezhuthu Pizhi Thiruthiyum Ilakkana Pizhi Thiruthiyum, , Coimbatore, 2012, p.212-213.
6. Prof. Rajendran Shankaravelayuthan, Dr. Ira. Amuda, Thamizhil Ezhuthu Pizhi Thiruthiyum Ilakkana Pizhi Thiruthiyum, , Coimbatore, 2012, p. 213.
7. <http://vaani.neechalkaran.com>
8. <http://vaani.neechalkaran.com/classic>.
9. <https://www.youtube.com/clip/UgkxgsqWLtiNvtWPY6CWjPBTpOw2Y6nrhu-8>
10. <https://chrome.google.com/webstore/detail/egempnhgkhkmennejeammngadiigelbo>
11. https://www.youtube.com/watch?v=cVAmnKydy_I
12. <https://www.youtube.com/watch?v=BaOvrsQ8Urk>
13. <http://apps.neechalkaran.com/oovan>
14. <https://tech.neechalkaran.com/2022/02/blog-post.html>
15. <https://vaanieditor.com/chatbot>
16. <https://www.instagram.com/tamilgrammar/>
17. <https://vaanieditor.com/grantham>
18. <https://oss.neechalkaran.com/dictionary/>
19. https://oss.neechalkaran.com/tamilfonts/?preview=Tamilri_Chenet
20. <https://www.hindustamil.in/news/tamilnadu/168235-.html>, 15 Mar 2018

