

## Tamil Computing



## 16.1 Introduction

“பிறநாட்டு நல்லறிஞர் சாத்திரங்கள்  
தமிழ்மொழியிற் பெயர்த்தல் வேண்டும்;  
இறவாத புகழுடைய புதுநூல்கள்  
தமிழ்மொழியில் இயற்றல் வேண்டும்;  
மறைவாக நமக்குள்ளே பழங்கதைகள்  
சொல்வதிலோர் மகிமை இல்லை;  
திறமான புலமையெனில் வெளிநாட்டோர்;  
அதை வணக்கஞ் செய்தல் வேண்டும்.”

- மகாகவி பாரதி

Human civilization developed with the innovation of computer in the twentieth century. Computer development began as a early calculating tool and has now become a essential ingredient for gigantic growth for the existence of human life without computers.

It is true that any language will be outdated when it does not have the ability to adapt itself to the changing technologies. Tamil is the living language for thousands of years. Development of modern technologies, does not affect the growth of classical Tamil as it is ready to adopt the growing technological changes. **Tamil is not just a language, it is our identity, our life and our sense.**

“எங்கள் வாழ்வும், எங்கள் வளமும் மங்காத தமிழென்று சங்கே முழங்கு” – புரட்சி கவி.

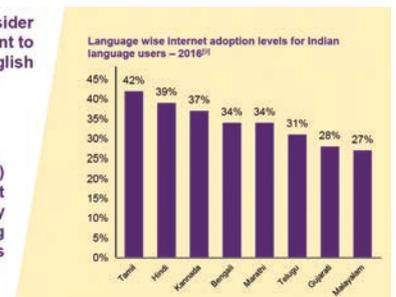
## 16.2 Tamil in Internet

We know that the internet today plays a vital role in every man's life. Internet is the best information technological device, through which we get know only infotmation.

In 2017 a study conducted by KPMG a Singapore based organization along with google, reported that, Tamil topped the list, among the most widely used languages in India, where 42% are using the Internet in Tamil

68%<sup>[9]</sup> Internet users consider local language digital content to be more reliable than English

Currently, Tamil (42%<sup>[9]</sup>) has the highest internet adoption levels followed by Hindi and Kannada among the Indian language users

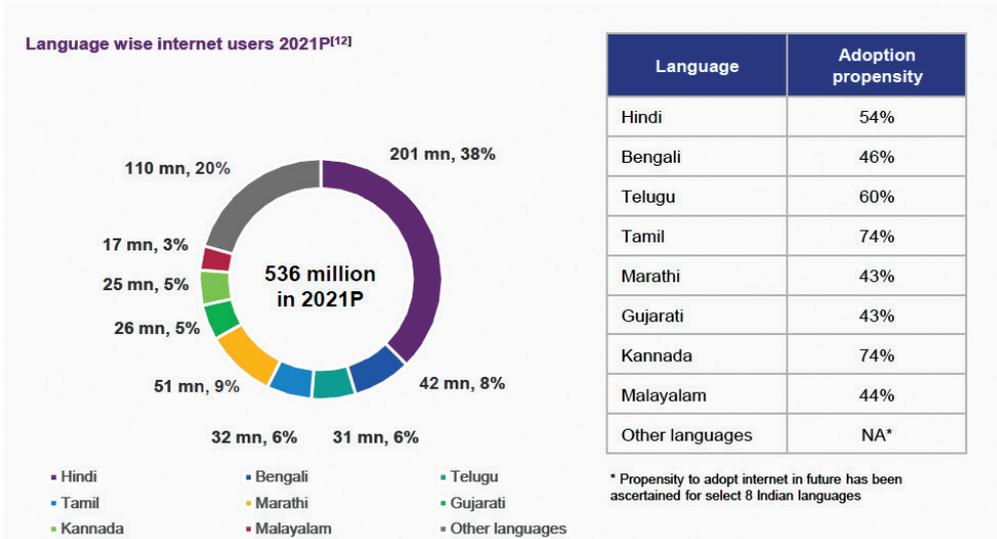


As per study, by 2021, 74% of people in India will access internet using Tamil and it will be in the top usage of Internet in India.

By 2021, the number of Hindi internet users will be more than English users

Marathi, Bengali, Tamil and Telugu internet users are expected to form 30%<sup>[12]</sup> of the total Indian language internet user base

Tamil and Kannada speakers have the highest propensity to adopt internet in future with the Indian language enablement of the ecosystem



These statistical data will be useful to improve internet services in Tamil.

### 16.3 Search Engines in Tamil

The “Search Engines” are used to search any information from the cyber space. Although there are many search engines, but only a few of them are frequently in use. In the top ten search engines, Google, Bing and Yahoo take first three places respectively. Google and Bing provide searching facilities in Tamil, which means you can search everything through Tamil. A Google search engine gives you an inbuilt Tamil virtual keyboard.



Figure 16.1(b) Google Search Engine (Singapore)

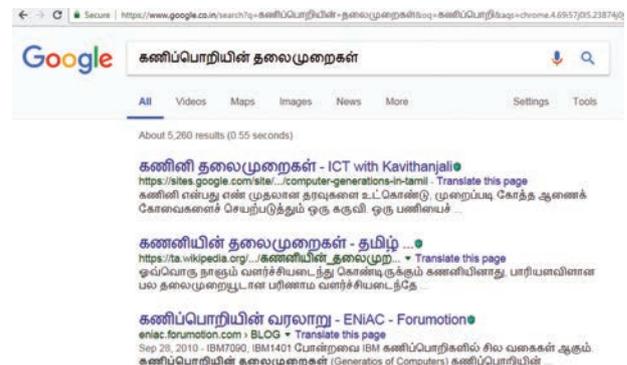


Figure 16.2 Searching in Tamil

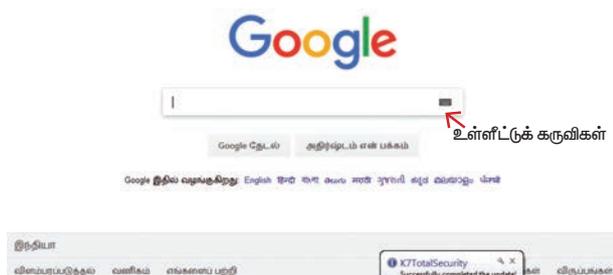


Figure 16.1(a) Google Search Engine (India)

## 16.4 e – Governance:

Getting Government services through internet is known as e-Governance. Govt. of Tamilnadu has been giving its services through Internet. One can communicate with Govt. of Tamilnadu from any corner of the state. One can get important announcements, government orders, and government welfare schemes from the web portal of Govt. of Tamilnadu.



Figure 16.3 Official Website of Govt. of Tamilnadu

E-Governance through Tamil	Web Address
Official Website of Govt. of Tamilnadu	<a href="http://www.tn.gov.in/ta">http://www.tn.gov.in/ta</a>
Department of Agricultural Engineering	<a href="http://www.aed.tn.gov.in/">http://www.aed.tn.gov.in/</a>
Department of Environment	<a href="http://www.environment.tn.nic.in/">http://www.environment.tn.nic.in/</a>
Directorate of Govt. Examinations	<a href="http://www.dge.tn.nic.in/">http://www.dge.tn.nic.in/</a>
Tamilnadu Health Department	<a href="http://www.tnhealth.org/">http://www.tnhealth.org/</a>
Tamilnadu Micro, Small and Medium Enterprises Department	<a href="http://www.msmeonline.tn.gov.in/">http://www.msmeonline.tn.gov.in/</a>
Rural Development and Panchayat Raj Department	<a href="http://www.tnrd.gov.in/">http://www.tnrd.gov.in/</a>
Backward, Most Backward and Minorities Welfare Department	<a href="http://www.bcmbcmw.tn.gov.in/">http://www.bcmbcmw.tn.gov.in/</a>
Tamilnadu Forest Department	<a href="https://www.forests.tn.gov.in/">https://www.forests.tn.gov.in/</a>
Hindu Religious and Charitable Endowments Department.	<a href="http://www.tnhrcce.org/">http://www.tnhrcce.org/</a>
Tamil Nadu Public Service Commission (TNPSC)	<a href="http://www.tnpsc.gov.in/tamilversion/index.html">http://www.tnpsc.gov.in/tamilversion/index.html</a>
Official Website of Govt. of Srilanka	<a href="https://www.gov.lk/index.php">https://www.gov.lk/index.php</a>

Outside India, Government of Srilanka provides all their services through the official website in Tamil.

## 16.5 e-Library

E-Libraries are portal or website of collection of e-books. Tamil e-Library

services provide thousands of Tamil Books as ebooks mostly at free of cost. It is the most useful service to Tamil people who live far away from their home land.

Tamil e-Library	Website address
Tamilnadu School Education and Teacher Education Training Textbooks and Resource Books	<a href="http://www.textbooksonline.tn.nic.in/">http://www.textbooksonline.tn.nic.in/</a>
Tamil Virtual Academy	<a href="http://www.tamilvu.org/library/libindex.htm">http://www.tamilvu.org/library/libindex.htm</a>
Connemara Public Library	<a href="http://connemarapubliclibrarychennai.com/Veettukku_oru_noolagam/index.html">http://connemarapubliclibrarychennai.com/Veettukku_oru_noolagam/index.html</a>
Tamil Digital Library	<a href="http://tamildigitallibrary.in/">http://tamildigitallibrary.in/</a>
Chennai Library	<a href="http://www.chennailibrary.com/">http://www.chennailibrary.com/</a>
Thamizhagam	<a href="http://www.thamizhagam.net/parithi/parithi.html">http://www.thamizhagam.net/parithi/parithi.html</a>
Project Madurai	<a href="http://www.projectmadurai.org/pmworks.html">http://www.projectmadurai.org/pmworks.html</a>
Old Books and Manuscripts	<a href="http://www.tamilheritage.org/old/text/ebook/ebook.html">http://www.tamilheritage.org/old/text/ebook/ebook.html</a>
Noolaham	<a href="http://www.noolaham.org/wiki/index.php/">http://www.noolaham.org/wiki/index.php/</a>
Anna Centenary Libraray	<a href="http://www.annacentenarylibrary.org/">http://www.annacentenarylibrary.org/</a>

## 16.6 Tamil Typing and Interface software

Tamil is mostly used to type documents in word processors and search information on the internet. Typing Tamil using Tamil interface software is a familiar one among the different methods of typing. This is the simplest method of typing Tamil in both Computer and Smart phones.

### 16.6.1 Familiar Tamil Keyboard Interface:

- NHM Writer, E-Kalappai and Lippikar – are familiar Tamil keyboard interfaces software that is used for Tamil typing which works on Tamil Unicode, using phonetics.
- Sellinam and Ponmadal – are familiar Tamil keyboard layouts that works on Android operating system in Smart phone using phonetics.



Figure 16.4 eKalappai Opening screen

## 16.7 Tamil Office Automation Applications

Famous Office automation software like Microsoft Office, Open Office etc., provides complete Tamil interface facility. These softwares are downloadable and installed in your computer. After installation, your office automation software environment will completely change to Tamil. Menu bars, names of icons, dialog boxes will be shown in Tamil. Moreover, you can save files with Tamil names and create folders with Tamil names.

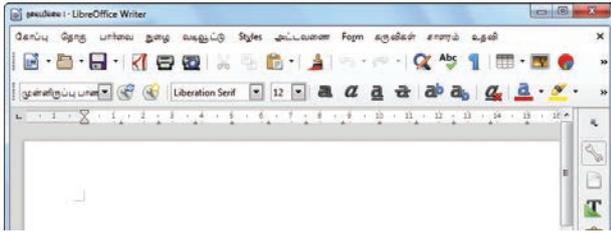


Figure 16.5 Libra Office Writer Environments in Tamil

Apart from that Tamil Libra Office, Tamil Open Office, Azhagi Unicode Editor, Ponmozhi, Menthamiz, Kamban, Vani are office automation software working exclusively for Tamil. You can use these applications to work completely in Tamil.

### 16.8 Tamil Translation Applications

Thamizpori (தமிழ்ப்பொறி) is a Tamil translation application having more than 30000 Tamil words equalent to English words. Using this application, we can translate small english sentences into Tamil. Google also gives an online translation facility.

### 16.9 Tamil Programming Language

Programming languages to develop software in computers and smart phones are available only in English. Based on Python programming language, the first Tamil programming language “Ezhil” (எழில்) is designed.

### 16.10 Tamil Information Interchange Coding Systems

#### TSCII (Tamil Script Code for Information Interchange)

Computers handle data and information as binary system. Computers use ASCII encoding system to handle data and information. The ASCII encoding system is applicable only for handling English language. Therefore, TSCII (Tamil Script Code for Information Interchange) is the first coding system to handle our

Tamil language. This encoding scheme was registered in IANA (Internet Assigned Numbers Authority) a unit of ICANN. **ISCII (Indian Script Code for Information Interchange)**

This is one of the encoding schemes specially designed for Indian languages including Tamil. It was unified with Unicode.

#### Unicode:

Unicode is an encoding system, designed to handle various world languages, including Tamil. Its first version 1.0.0 was introduced in October 1991. Unicode is the best suitable to handle Tamil.

### 16.11 Tamil Operating System

An operating system is needed to access electronic systems such as computer and smart phone. Microsoft Windows is very popular operating system for personal computers.

Windows Tamil Environment interface should be downloaded and installed from the internet. It displays all window elements such as Taskbar, desktop elements, names of icons, commands in Tamil.

### .12 Organisation and projects to develop Tamil

#### Tamil Virtual Academy:

With the objectives of spreading Tamil to the entire world through internet, Tamil Virtual University was established on 17th February 2001 by the Govt. of Tamilnadu. Now, this organisation functions with the name of “Tamil Virtual Academy”. It offers different courses in Tamil language, Culture, heritage etc., from kindergarten to under graduation level.

Website: <http://www.tamilvu.org/index.php>

## Tamil Language Council, Singapore

With the objectives of promoting the awareness and greater use of Tamil among the Singaporeans, in 2001 the council of Tamil Language was formed by the ministry of Information Communications and Arts, Govt. of Singapore. The council is called as “வளர்தமிழ் இயக்கம்”.



Website: <http://tamil.org.sg/ta>

### Madurai Project

Project Madurai is an open and voluntary initiative to collect and publish free electronic editions of ancient tamil literary classics. This means either typing-in or scanning old books and archiving the text is one of the most readily accessible formats for use on all popular computer platforms.

Since its launch in 1998, Project Madurai etexts released are in Tamil script

form as per TSCII encoding. Since 2004 we have started releasing etexts in Tamil unicode as well.

Web Site: <http://www.projectmadurai.org/>

### Tamil Wikipedia:

Wikipedia is a open source encyclopedia. Any person can write an article about any subject. There are more than 1 lakh articles in Tamil Wikipedia.

Web Site: <https://ta.wikipedia.org/>

In order to make Tamil as a living language, it is the duty of every Tamilian to involve Tamil in development of technology. Those who forgotten their values, the will be considered as “Nomads”. If we learn about how many great technologies we have to add Tamil as a symbol of our race. It is our duty to combine our world's first language and language for more than five thousand years with growing technology.

### Points to Remember:

- Tamil topped the list of the most widely used regional languages in India by the end of 2016, among 42% are using the Internet.
- Google and Bing provide searching facilities in Tamil.
- Getting Government services through internet is known as e-Governance.
- Tamil e-Library services provide thousands of Tamil Books as ebooks mostly at free of cost.
- Thamizpori (தமிழ்பொறி) is a Tamil tranlation application having more than 30000 Tamil words equalent to English words.
- The first Tamil programming language is “Ezhil” (எழில்)
- Unicode is an encoding system, designed to handle various world languages, including Tamil.
- Among the various encoding scheme, Unicode is the suitable to handle Tamil.
- Windows Tamil Environment interface should be downloading and install from internet.

## Evaluation



### Answer to the following questions

1. List of the search engines supporting Tamil.
2. What are the keyboard layouts used in Android?
3. Write a short note about Tamil Programming Language.
4. What is TSCII?
5. Write a short note on Tamil Virtual Academy.

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