FOUR DECADES OF DISTANCE EDUCATION IN INDIA

CHAPTER X   TAMIL VIRTUAL UNIVERSITY – SOME EXPERIENCES
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1. INTRODUCTION

Virtual education is a form of Distance education. It was the emerging technologies, like the web, multicast network infrastructure and multimedia technology which have the potential to make it possible to create distributed environments, providing complete location-independent access to learning resources. Virtual education incorporates all activities of a real university including registration, enrollment, payment of fees, delivery of lessons, on-line lecturers, interactive sessions, assignments, evaluation including intermediate tests and final examination and award of grades and certificates.

There are many virtual models and virtual campuses in the globe. Tamil Virtual University (TVU) is one such model, promoted by the Government of Tamil Nadu to cater to the language and cultural needs of Tamil Diaspora. Established in July 2000, the Tamil Virtual University has grown with a wide range of virtual repositories of resources relating to the history, art, literature and culture of the Tamils.

This Chapter presents a brief account of the establishment and development of Tamil Virtual University.

2. HISTORY

2.1 The Beginning

Indians are one of the five races in the world who have a world wide presence, the other four being, the English, the Chinese, the Japanese and the Jews. Among the Indians, the Tamils constitute an important component and they live in over 60 countries, in considerable numbers in some and in small numbers in some others. Tamil is a national official language in two countries, namely Sri Lanka and Singapore, a State language in India and a recognised language in many countries. The Tamils living abroad need to be familiar with Tamil language and be in touch with their heritage, in order to preserve their culture, tradition and values.

There is awareness among the Tamils living abroad that they must not lose their cultural roots. There is evidence of growing interest in learning Tamil language, Carnatic Music and Bharatha Natyam. In this effort, they need help. It is with a view to meeting the requests often made by the overseas Tamils, the Government of Tamil Nadu decided to

set up the Tamil Virtual University. During the Valedictory function of Tamil Net'99 on 8th February 1999, the then Chief Minister, Government of Tamil Nadu announced that a 'Tamil Virtual University' would be set up to meet the cultural needs of the Tamils around the world.

The Government, on the recommendation of an Advisory Committee under the Chairmanship of Dr.M.Anandakrishnan, Chairman of the Sub-Committee of the State Information Technology Task Force, ordered the setting up of a High Level Committee in May 1999 under the Chairmanship of Dr.V.C.Kulandaiswamy, former Vice-Chancellor, Indira Gandhi National Open University, to prepare the development programme for the proposed University. The High Level Committee submitted in 1999 a detailed report covering all aspects of establishing a Virtual University for Tamil.

The University has the following Vision:

Vision: The Tamil Virtual University aims at providing Internet based resources and opportunities for Tamil communities living in different parts of the globe as well as others interested in learning Tamil and acquiring knowledge of the history, art and culture of the Tamils.

The Tamil Nadu Government passed orders on January 2000 to set up a Tamil Virtual University as a Society, defining the organizational mechanism. The proposal included a Board of Directors comprising 7 to 9 members, including the Chairman and the Director of TVU. The Government entrusted the responsibility of initiating the steps for establishing the University with Dr.V.C.Kulandaiswamy. The TVU was registered as a Society on 12th May 2000.

2.2   Administrative System of TVU

According to the Bye-Laws, the authorities of TVU are (i) the Society of the University (ii) Board of Directors (iii) Academic Council and (iv) such other authorities as may be declared by the Bye-Laws. In the first meeting of the Governing Body of the TVU Society, held on 30th May 2000, the Members of the Governing Body elected themselves as the first Board of Directors of the Society and Dr.V.C.Kulandaiswamy as the First Chairman of the Board. In the same meeting, a Search Committee was constituted for the selection of the Director, TVU. In its second meeting held on 19th June 2000, the Board resolved to appoint Dr.M.Ponnavaikko, Professor & Head, Department of Computer Science and Engineering, Crescent Engineering College, as the Director, TVU. Dr.M.Ponnavaikko joined as the first Director of TVU on 5th July 2000 and the TVU started functioning in a small room at the ELNET Software City, Taramani. In the next few months, two Deputy Directors, one Senior Tamil Professor as a Senior Consultant, two Assistant Directors, one Lexographer and a few more secretarial and computer

system administrators and programmers were appointed, most of them on contract or deputation. To avail the vast experience of IGNOU in developing interactive course material for distance learning, the then Regional Director of IGNOU, Bangalore, Mr.T.R.Srinivasan, was appointed as Deputy Director on deputation for a period of two years.

3. DEVELOPMENT OF TVU

a. Establishment of TVU with basic infrastructure

The Government of Tamil Nadu allotted a space of 1400 sq.ft. in ELNET Software City, Taramani. The construction activity for building the office was started, computers and accessories, communication systems and the other office equipments were procured and a 64 kbps ISDN Internet Connection was obtained and the office was inaugurated by Dr.V.C.Kulandaiswamy on 16th October 2000.

In order to make use of the services of an Internet Service Provider (ISP) in the U.S., M/s.Surf India was identified and the web server of TVU was placed in their internet service centre in New Jersey sharing their 45 Mbps internet connectivity. Then TVU website was registered with an address www.tamilvu.org through Network Solutions, U.S.A.. For secured transactions of credit cards and transmitting private documents via the internet, a protocol called SSL (Secure Sockets Layer) certification was installed in the server. To enable the prospective beneficiaries to register for access to the TVU web contents on payment, a payment Gateway was installed through ICICI. Thus, the TVU was set ready for its academic growth.

b. Target groups and their needs

The target groups for TVU are as follows:

i. Tamils in countries like Mauritius, Reunion, Fiji and South Africa
ii. Tamils in Sri Lanka, Malaysia and Singapore
iii. Tamils in advanced countries like U.S.A., Canada, Australia, U.K. and Europe
iv. Students who may be opting for Tamil as one of the subjects in a University Programme
v. Scholars engaged in Tamil research
vi. Others interested in learning Tamil

The Tamils in South Africa, Mauritius, Reunion and Figi were settled there from the middle of the 19th century and they are loosing touch with their language and culture, generation after generation. They want the younger generation to learn Tamil and the level of learning Tamil in these countries is that of the beginners, starting from the alphabet.

In Malaysia and Singapore, Tamil is taught in schools; in Sri Lanka, Tamil studies are available upto University level. Tamils in these countries need opportunities for gaining knowledge in Tamil language, literature, art and culture and to pursue higher studies in Tamil.

Tamils in advanced countries like U.S.A., Canada, Australia, U.K. and Europe, many of them organize week-end classes for the children of the Tamil families to train them to understand and speak functional Tamil and to some extent to read and write. Some have prepared CD ROM contents for learning basic Tamil. Further, some Universities in these countries offer programmes in which Tamil may be taken as a subject for credit. To meet the requirements of the Tamils in these parts of the world, the courses offered by Tamil Virtual University shall be such as to supplement the knowledge that these students gain through private arrangements made.

As for those Tamil students who may be engaged in research, their requirement may be in the form of literature for reference or dictionary material.

3.3. Development of Academic Programmes

To meet the global requirements cited above, the Academic Programme of TVU includes curricula at two levels of education, namely Beginners' level and Higher level.

The Beginners' programme includes a Certificate Course offering Tamil language upto the 6th Standard in Tamil Nadu Schools, and a series of Advanced Certificate Courses, Level-1, Level-2 and Level-3 to cover the Tamil skill sets offered in the Classes 7th & 8th, 9th & 10th and 11th & 12th respectively. The Higher level programme at present offers a Bachelor level degree course in Tamil equivalent to B.A.(Tamil), consisting of a diploma and an advanced Diploma programmes leading finally to bachelor's degree programme.

3.3.1 Beginners' Programme

The Certificate course of the Beginners' programme comprises three levels, namely (i) Basic (ii) Intermediate and (iii) Advanced. The structure of the courses and the skill sets were developed by three sub-committees. The course materials were designed with multimedia contents including audio, video, animation, pictures, text, etc. in a self-learning mode, with the help of web content designers. The Programme includes a primer education at kindergarten level.

a. Basic Level Lessons

At the basic level, the lessons are offered to enable the child to learn, to read and write Tamil alphabets with the help of animated contents. Tests have been added for self-evaluation. The alphabets are taught starting with the letters having simple shapes. To

help the learners practise in Tamil sounds 16 Rhymes are appended to these lessons. A table of Tamil alphabets is given with audio files to hear the pronunciation of each letter when clicked on the letter. A glossary of about 900 words, taught at this level is given with audio files to hear the correct pronunciation of a word and to spell the letters while reading the word.

The skills imparted at this level will be equal to the first standard and a part in the second standard of school education in Tamil Nadu. The lessons offered at this level are delivered through explanations in English.

b. Intermediate Level Lessons

The skill sets offered in the second to fourth standards of school education in Tamil Nadu are covered in the Intermediate level of the certificate course. Twenty lessons are included to learn through listening, reading, writing and conversation. Exercises in grammar are given in each lesson. In these 20 lessons the students learn commonly used words like the names of animals, birds, vegetables, flowers and fruits and the words used at functional levels at home, restaurants, functions and festivals. Each lesson is provided with an exercise in spoken Tamil through audio and animation techniques. After going through these lessons, a candidate will be able to understand from listening, to read a given text, to write a spoken text and to freely converse in Tamil. They would have also learnt the basic grammar of Tamil.

The students enrolling for this level of lessons are expected to know about 1000 words. The lessons are delivered in Tamil with instructions in English and all icons in bi-lingual mode for easy understanding.

c. Advanced Level

Advanced level of the certificate course includes the skill sets offered in the 5th and 6th Standards of school education in Tamil Nadu. In this level, higher-level skills are given through 18 lessons using Multimedia and Information Communication Technologies (ICT).

After going through these lessons, a candidate will be able to acquire skills to understand simple Tamil poems, to narrate an instant, to understand literary articles, to write letters of different types, to write and understand simple articles, and to understand stories.

d. Primer Education (Kindergarten level)

The basic level of lessons as stated earlier do not introduce Tamil alphabets in the conventional order. Through the feedbacks received from the Tamils settled abroad, it was understood that this system may suit the children living in Tamil speaking

environment and that the children in non-Tamil speaking environment should be first taught through oral education to make them speak and understand spoken Tamil. For this purpose, primer education level of lessons were developed as a prelude to the basic level of lessons. The primer education includes 7 sections of lessons, comprising rhymes, stories, conversation, common words, events, numbers and letters. The lessons with exercises are delivered through voice and verbal mode with the help of animation. After going through these lessons, the children will be in a better position to learn the lessons offered under basic level of the certificate course.

3.3.2 Higher Level Programmes

The Diploma, Higher Diploma and the Bachelor Degree programmes are offered as an integrated unit. As in the case of the degree programmes offered in Tamil Nadu, this programme consists of three parts. Part 1 consists of the mother tongue or the regional language and part 2 study of a foreign language and part 3 Tamil language, literature, history, culture and art as a major subject of study. Parts 1 and 2 will be exempted if a student has already acquired any degree from any of the recognized universities in the world. Even in the case of students not possessing a degree, but passes degree examinations in his/her mother tongue and/or in a foreign language from any recognized college or university, he/she will be exempted from both or either of the parts 1 and 2 as the case may be. Those who are not covered under either of the cases referred to above, have an option to undergo the papers under parts 1 and 2 offered by TVU. Part 1, offered by TVU has four papers in Tamilology with a total of 8 credits and part 2 offered as an option has four papers in the areas of translation, manuscriptology, information technology and news media with a total of 8 credits.

Part 3 has 21 papers on Tamil language, culture, literature, history, art, etc. offered as C-level, D-level and A-level courses. C-level contains 4 papers, D-level contains 8 papers and A-level contains 9 papers. Each paper carries four credits.

- One who completes the four C-level courses and obtains 16 credits will be awarded a Diploma in Tamil.
- A Higher Diploma in Tamil is awarded when C and D-level courses are completed and 48 credits are earned.
- To qualify in part-3 of the degree programme, one has to complete all the 21 papers and earn 84 credits. [The degree programme as such consists of part-1, part-2 and part-3]

The lessons are designed in an interactive manner. Each paper is provided with an introduction covering the gist of the topics in the paper, in audio and text modes both in Tamil and English. In a similar manner, at the opening of the lesson, a general briefing on the content is provided. Wherever poems are quoted inside the lessons they are

supported with audio clippings. To review and for self-evaluation, self-assessment questions are provided. For each lesson, a concluding lecture by an expert in the concerned topic, lasting for about two minutes, is given as a video clipping at the end of the lesson.

3.4 Development of a Digital Library

The library consists of three sections: i. literature section, ii. Dictionaries section and iii. Other resources section. The literature section has a collection of works of Sangam, post-Sangam, medieval and modern periods. Selected books are also given in Roman script. Further, the dictionary section has a rich collection of dictionaries including six volumes of the Tamil Lexicon. Thesaurus and small dictionaries are also in the digital library.

The other resources section includes the following :

- Video clippings on Tamil cultural events like Kavadi Attam, Poykkal Kudirai Attam, Mayilattam, Karakattam, Theru Koothu, Pavai Koothu (Puppet show), Nadaswaram, Jallikattu, Bharathanattiyam, etc.

- Video clippings with commentary on 125 Siva and Vaishnava Temples in Tamil Nadu

- Photogallary consisting of 125 Siva and Vaishnava Temples in Tamil Nadu

- Tamil Technical Glossaries including Tamil technical terms in several disciplines like Arts, Science, Engineering, Medicine, Law, Agriculture, Information Technology, amounting to more than 2 lakh terms with search facilities

- Links to other Tamil websites

4. DELIVERY SYSTEMS

4.1. Dedication of TVU to the World Community

The web content development activities of TVU actually started in November 2000. The University was inaugurated and dedicated to the World Community by the then Chief Minister of Tamil Nadu on 17th February 2001. The inaugural function had International participation with representatives from Malaysia, Sri Lanka and Singapore.

4.2 Enrollment and Learning

To visit the TVU website, one has to register oneself as a member in one of the following categories:

(i) Visitor, (ii) Auditor, (iii) Student, (iv) Library Member

For registration, no fee is charged. Provisions are given for individual or group registration.

A student will be able to enroll for a programme when he/she fulfils the minimum requirements and pre-requisites, prescribed for the concerned programme.

4.3   Tutoring and Counselling

The period of study for lessons, enrolled is six months. A teacher is assigned for every block of 6 lessons in the case of Diploma/Degree programmes or for all the lessons in each level of study in the case of certificate courses. All the students enrolled for a block/level of lessons are put under an e-group. The teacher allots time slots for studying and completing the lessons in a block or in a level of study in stages. If a student wants to discuss with the teacher on any topic related to the subject of study, he/she can fix up a convenient time through e-mail exchange for a chat with the teacher through chat server facilities. The teacher monitors the progress of the students; gives assignments and evaluates them.

4.4   Evaluation and award

Every student is evaluated through on-line as well as off-line tests and examinations. There are two components of evaluation for each paper; one is the internal continuous assessment and the other is the end-semester examination. Continuous assessment is made through on-line assignments and objective type on-line tests with the help of question banks stored in the web server. The end semester examinations involve long-answer questions.   A question bank for the end semester examination is placed in the web server. Whenever a student wants to take the end-semester examination after fulfilling the requirement, he/she goes to the study centre and the authorized person in the study centre draws a question paper from the question bank in the web server for him/her. The candidate writes the examination in the study centre. The answer book is valued by the adjunct faculty of TVU available in the place where the study centre is situated. If the adjunct faculty is not available, the answer book is sent to the TVU headquarters for valuation by the appointed examiners.

The students can know the marks from the website directly. The grade sheets and the certificates are awarded to the students through the concerned study centre.

4.5   Role of Study Centres

Study centres play an important role. A student registers through internet. Evaluation is also carried out through internet.   There is a possibility that someone enrolls and

someone else gives tests as a proxy. The study centres help to avoid such happenings. When a student registers for a course to study, he/she is advised to report at a study centre. The study centre then issues an Identity Card with his/her photograph and signature, duly countersigned by the study centre administrator. The students are clearly advised that they should give their on-line as well as off-line examinations only at the designated study centres. Study centres are set up through an MOU, signed between the study centre and TVU, ensuring provision of facilities such as a computer centre with internet facilities and an administrative office to attend to the registration of students and Library members, issue of identity cards, management of TVU study materials, furnishing of necessary information on the TVU programmes, conduct of on-line and off-line tests and examinations, and for the co-ordination of the adjunct faculties of TVU residing in the concerned regions for the purpose of valuing the answer books and arranging for counselling with the students.

The TVU has so far set up the following study centres:

    i.   Mauritius Tamil Cultural Centre, Mauritius
    ii.   Dana International Educational Services (Pvt.) Ltd., Sri Lanka
    iii.   California Tamil Academy, California, USA
    iv.   TMI Nusantara Consultancy, Malaysia
    v.   Sishyaa, School of India Tamil School in New York
    vi.   Sishyaa, School of India Tamil School in Canada
    vii.   The Tamil School of Tamil Association of Greater Delaware Valley, Philadelphia.
    viii.   New Jersey Tamil Arts and Cultural Society Tamil School, New Jersey
    ix.   Fremont Chinmaya Mission Balavihar Tamil Classes, Fremont, California

5. ACCEPTANCE AND APPRECIATION

Soon after the inauguration of TVU website, thousands of Tamils from different parts of the world started visiting the website. Just after 15 days from the date of inauguration, 493 from 30 countries had registered as visitors, students and library members. This figure started growing quite fast (Table 5.1). During a period of 5 years, more than 15000 persons from 94 countries have become the users of the TVU website as registered visitors, students, auditors and library members. As on 7th July 2005, the total number of enrolments was 6989 from 65 countries out of which 1896 students have enrolled for the certificate course, 2303 for the Diploma-cum-Degree course, 26 for auditing and 2764 as library members. Good number of enrolments are from countries like Sri Lanka (2856), India (2378), USA (848), Mauritius (148), Singapore (134), Malaysia (80), Australia (75), UK (75), UAE (63) and Canada (48). In the other 55

countries, the number of enrolments vary from 1 to 45. The demand for the Degree programme is more in countries like Sri Lanka, India, Singapore and Malaysia.

Table 5.1   Details of Registration and Enrollments in TVU

Date	Cumulative Users including Course enrollments		Enrollments in Courses and Library	
	No.of Candidates	No.of Countries	No.of Candidates	No.of Countries
01/03/2001	493	30	138	17
15/06/2001	2120	54	310	24
06/11/2002	4669	90	582	33
31/03/2003	7091	94	2491	40
04/05/2004	9540	94	2575	47
08/08/2004	10517	94	3312	51
06/12/2004	11789	94	4149	57
07/03/2005	12942	94	4965	58
07/07/2005	14969	94	6989	65

5.1   Feedback from USA, Canada, Australia, UK and Europe

Many Tamil Associations, running week-end Tamil Schools started enrolling their students into the certificate programme of TVU. California Tamil Academy, New Jersey Tamil Arts and Cultural Society Tamil School, Fermont Chinmaya Mission Balavihar Tamil Classes, The Tamil School of Tamil Association of Greater Delaware Valley, Philadelphia and Sishya School of India Tamil Schools in New York and Canada signed MOU with TVU offering their schools as the study centres of TVU.

The students of California Tamil Academy were the first to receive the Certificates of TVU. Fifty eight students out of 140 students enrolled for the basic level of the certificate course, took the final examination and fifty five of them were qualified to receive the certificate on the basic level of the certificate programme.

5.2   Feedbacks from South Africa, Mauritius and Reunion

The opening of TVU was considered as a big boon for the Tamils in South Africa, Mauritius and Reunion. During the visit of the Director, TVU in February 2002 the Mauritius Tamil Cultural Centre (MTCC) signed an MOU with TVU for establishing a study centre and about 150 students have enrolled for the certificate programme of TVU.

In South Africa, the South African Tamil Federation (SATF) and over 40 other Saiva temple organisations are showing interest to promote TVU programmes. The SATF is trying to establish study centres with internet facilities in different parts of the country

through the financial assistance from the Government. Meantime, the interested Tamils have procured a few copies of the CD ROMs having basic level lessons of TVU, made multiple copies and distributed to the interested children and institutions.

5.3   Feedbacks from Sri Lanka, Malaysia and Singapore

In Sri Lanka, a recruit-cum-service agency, namely 'Dana International Educational Services (Pvt) Ltd. (DIES), Colombo took the initiative for promoting TVU programmes in Sri Lanka and signed an MOU with TVU for setting up study centres of TVU in Sri Lanka. Subsequently DIES established 3 centres, one in Colombo, second in Ratnapuri and the third in Oluvil. Till July 2005, about 2900 students have enrolled, of which 1100 in the certificate courses and 1800 in the degree courses.

5.4   Support from IGNOU

The Vice-Chancellor, IGNOU visited TVU, had an appraisal of TVU programmes and readily accepted to support the interests of Tamil Virtual University with overwhelming interest and appreciation. To this effect an MOU was signed between IGNOU and TVU. The students of TVU can now use IGNOU lessons to complete part-I or part-II under languages.

5.5   Appreciation from Commonwealth of Learning (COL), Canada

The President of the Commonwealth of Learning (COL), Canada, Dr.Gajaraj Dhanarajan visited Tamil Virtual University in February 2003 and was impressed with the web-based programmes of TVU. In a function where TVU was signing an MOU with TMI-Nusantara Consultants (M) Sdn, Bhd of Malaysia, Dr. Gajaraj Dhanarajan, expressed his willingness to support a pilot project for training 40 school teachers in Malaysia from the schools adopted by TMI-Nusantara Consultants through the web based Degree programme of TVU. Accepting the offer, TVU submitted its proposal to COL towards the end of May 2003. COL granted permission in June 2003 to launch the pilot project in Malaysia with a tripartite agreement between TVU, COL and TMI-Nusantara with a financial aid of Canadian Dollar 75,000/- towards the tuition and other fees for 40 students to pursue the degree programme of TVU and towards the development of contents for the said programme.

6. PROBLEMS AND CONSTRAINTS

The Tamil Virtual University was established at a time when the technology for developing virtual campus was in its early stages.

When TVU was established, there were no models of virtual universities to follow in its design and development. Hence, at every stage of the development it was really a

pioneering effort and all those associated should be credited with enormous innovative effort.

6.1   Constraints in Development and Delivery of Contents

As far as the development of web contents for the planned curriculum are concerned, there are three parties involved: (1) the course writers, (2) the web content designers and (3) TVU.

The lesson developers were pooled from the conventional system. They had no experience in writing interactive course material for distance learning. Hence, workshops were held to train the lesson writers to prepare material for effective learning with question banks for on-line and off-line tests and examinations. Inspite of the training, the resource persons had to re-write the lessons several times to reach the desired level of acceptance.

The next issue was to locate vendors for web-enabling the study material and library contents. In 2000, when TVU started functioning, there were only a few vendors in and around Tamil Nadu with some experience in developing multimedia based web contents. Through a strict selection process 12 vendors with varied experience were identified. Barring a few, others had no experience in developing web contents in Tamil using the TAB encoding standard for Tamil, standardized by the Tamil Nadu Government. The identified vendors were involved in web enabling the contents of TVU through on-the-job training and with strict quality control. The vendors had to re-do the jobs many times till an acceptable standard was reached.

6.2   Learners' Problems

The main problem of TVU Learners is the access to internet. The internet penetration to-day (as on July 2005) varies from 1.8% in Africa to 68.0% in North America and 14.6% in the world as a whole. The penetration in the largest populated region Asia, is only 8.9%. In many countries, the internet browsing is very costly. Accessibility and the cost are the main problems of the students of TVU.   To overcome this problem, Tamil Virtual University provides the learning material in the CD mode also.   Text mode course material is under preparation. For the purpose of on-line registration and evaluation, Tamil Virtual University insisted that all the study centres should have internet facility for the use of TVU students.

6.3.   Administrative Changes

After a dedicated service of three years and two months in developing TVU as its first Director, Dr.M.Ponnavaikko, relinquished his position from TVU, on 3rd September 2003.

Dr.V.Sankaranarayanan, former Director, Ramanujam Computer Centre, Anna University, succeeded Dr.Ponnavaikko. He assumed office from November 2003.

7. CONCLUSION

The Tamil Virtual University has been set up to provide Internet based resources and opportunities for the Tamil Communities living in different parts of the globe as well as others interested in learning Tamil and acquiring knowledge of the history, art, literature and culture of the Tamils. TVU website is rich in content, elegant in presentation and effective in delivery. The main problems as in the case of any other virtual education institutions, is the digital divide. But, this problem over the years to come will get reduced considerably. In fact, the percentage of internet penetration into the world population as on July 2000 was only 407.1 million out of 5951 million, constituting a percentage of 6.84. The concentrated efforts from all concerned in the world have increased the level of internet penetration into the world population to 14.6% by July 2005 from 6.84% in July 2000. Tables 7.1 and 7.2 give internet penetration levels in the different regions of the world as on July 2000, and July 2005 respectively.

Table 7.1 : Internet Usage Statistics as on July 2000

Sl.No.	World regions	% penetration into population	% of users
1.	Africa	0.40	0.76
2.	Asia / Pacific	3.04	25.76
3.	Europe	15.54	27.79
4.	Middle East	1.29	0.59
5.	North America	55.16	41.05
6.	Latin America	3.21	4.04
7.	World	6.84	100.00
Source: www.nua.ie/surveys			

Table 7.2 : World Internet Users and Population Statistics

World Regions	Population (2005 Est.)	Internet Usage, Latest Data	Usage Growth 2000-2005	% Population (Penetration)	World Users %
Africa	896,721,874	16,174,600	258.3 %	1.8 %	1.7 %
Asia	3,622,994,130	323,756,956	183.2 %	8.9 %	34.5 %
Europe	731,018,523	269,036,096	161.0 %	36.8 %	28.7 %
Middle East	260,814,179	21,770,700	311.9 %	8.3 %	2.3 %
North America	328,387,059	223,392,807	106.7 %	68.0 %	23.8 %
Latin America/Caribbean	546,723,509	68,130,804	277.1 %	12.5 %	7.3 %
Oceania / Australia	33,443,448	16,448,966	115.9 %	49.2 %	1.8 %
WORLD TOTAL	**6,420,102,722**	**938,710,929**	**160.0 %**	**14.6 %**	**100.0 %**

Source: www.InternetWorldStats.com

Even with this limited availability of internet facilities, Tamils from 94 countries are making use of the TVU website and nearly 7000 students from 65 countries are studying in the different academic programmes of TVU. If the development in internet infrastructure improves and the internet becomes easily accessible at low cost, the usage of the web based resources of Tamil Virtual University will increase exponentially.

TVU has ambitious plans to introduce new programmes like offering packages for the tourists to learn functional Tamil, programmes on performing arts, general studies on selected topics like Tamilology, courses on Tamil computing, etc. TVU has also been contributing to the development of Tamil software and tools for enabling Tamil language to handle in Tamil technological advancements. It is hoped that TVU will ultimately emerge as an international university serving the Tamil diaspora and all those who may be interested in Tamil language and culture.