Research Report - RR1

ICT use among the Students of Arts and Science Colleges in Kerala

Report of a project funded by Hivos, the Netherlands

Raji and Godsy

SOCIETY FOR THE PROMOTION OF ALTERNATIVE COMPUTING AND EMPLOYMENT

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7	ABSTRACT	Kerala was one of the first states of India to initiate free and compulsory computer education in high schools through its IT@School project which covers 1.6 million students every year. While higher education policy recognises the importance of improving pedagogy with the help of tools and methods made available by Information and Communication Technology (ICT), this need has not been addressed in practice. In this milieu, SPACE conducted a study among 200 students chosen through convenience sampling from five districts of Kerala to understand how undergraduate students in arts and science colleges relate to new ICTs especially the Internet. Results indicate a wide gap between boys and girls in their use of Internet across different socio-economic groups. Many colleges do not provide free Internet access to students. Problems in access is more acutely felt by girls who are restricted by social norms from visiting browsing centres. Fewer girls than boys felt confident in using Internet. The study suggests the need to create a teaching and learning environment in colleges that utilises the opportunities thrown open by the World Wide Web, to equip students and teachers in its use and to ensure that students have an enabling access to ICTs within their campus.
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Foreword

SPACE has been conducting studies on various topics related to Information and Communication Technologies (ICT) and society for some time. The studies have been largely used for our own purposes. This study on the access students have to ICT, to what extent they use it and the reasons, if any, for their lack of access or limitations in use was done in 2008 November-December. It has brought out some interesting aspects of ICT use by students though the study was done on a small sample and traditional academic methodologies were not strictly followed in the study.

In spite of the above limitations, we are publishing the study because no such study has been conducted in the state earlier and the present one does throw some light on the penetration of this technology among students of arts and science colleges in the state. This is the first such report and more will be brought out in the future. We intend to continue to do such studies in the state, and possibly outside, in future.

V. Sasi Kumar
Co-ordinator, SPACE

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ICT use among Students of Arts and Science Colleges in Kerala

1 Introduction

The combination of information and communication technologies has created ICT, possibly one of the most powerful technologies devised by humanity. But disparities exist in access to, and use of ICT between countries and between groups within countries, a phenomenon popularly referred to as the digital divide. The digital divide is not one dimensional - it involves a complicated patchwork of varying levels of ICT access, basic ICT usage, and ICT applications among countries and peoples (bridges.org, 2001). Digital divide covers a spectrum of socio-economic factors within countries and it reflects the existing inequalities in society. Income, geographical location, education, age, gender are some of the factors that put people at different ends of the divide.

While the impact of ICT on sectors such as banking, tourism, medicine, engineering etc. have been enormous, the uptake of ICT in education is fraught with difficulties (Oliver, 2002). Lack of funding, training among practitioners, motivation and perceived need among teachers to adopt ICT as teaching tools impede the required uptake of ICT in education (Starr, 2001).

In India, the need for reforms in education by harnessing new ICTs is increasingly being accepted as essential by universities and cultural organisations across India. The *National Policy for ICT in Education*, under formulation, highlights the need to integrate ICT as a subject in the curriculum as well as to strengthen the overall teaching learning process. Open and distance education systems in India use EDUSAT and other TV and radio channels for delivering content. But ICT is yet to be used significantly for the delivery of content.

The University Grants Commission (UGC), the apex body responsible for maintaining standards in higher education in India, has acknowledged the role of ICT in improving teaching-learning paradigms, building new knowledge, collaborating with peers and in the governance of education in universities.

The Higher Education Council of Kerala recognises that, in the new educational revolution across the world, the most important input comes from ICT, and that Kerala is relatively undeveloped in this sphere. It accepts that ICT is a tool for enhancing quality of teaching and learning at the higher education level, and for expanding opportunities for distance education.

> "The developments in Information Communication Technology (ICT) should be put into service, both to improve the quality of learning and access to learning. The possibilities of e-learning have to be exploited to the fullest extent, even as we continue to improve the quantity and quality of education through the face-to-face mode. Similarly the traditional face-to-face mode can be further improved by integrating ICT into the curriculum. This would require a continual programme of intensive and extensive exposure to the new pedagogy of learning to teachers as well as students and also additional investment for providing new infrastructure." (Panikker, 2007)

Estimates from the International Telecommunications Union (ITU) indicate that only 6 percent of the population in India accessed Internet in 2007 (Veeramacheneni et al, 2008).

Among all states in India, Kerala has the highest penetration of computers and Internet. A prominent English newspaper, *The Hindu*, quoting the IT Secretary of Kerala, states that computer penetration in Kerala is double the national average (The Hindu, 2008). In 2007, the Government of Kerala launched broadband scheme for all schools in the state.

A large number of students at the higher secondary level in Kerala opt for computer science as one of their subjects, and all engineering colleges have computer labs with several computers. But little is known about the extent and nature of ICT exposure that arts and science graduate students have. Unlike students of engineering, they do not have ICT as part of their curricula and hence the colleges are not bound to provide facilities for using ICT.

The arts and science colleges in Kerala are affiliated to four universities, namely, Kerala, MG, Calicut and Kannur. Of the 186 arts and science Colleges, 38 are government colleges and 148 are in private aided sector. Approximately 1.4 lakh students enrol in these colleges for their graduate education. The students who enter arts and science colleges have basic knowledge and skills in computing owing to the IT training received at school through the IT@School project.

Given the growing importance attached to ICT at the ideological and policy levels, we wanted to study how students of arts and science colleges in Kerala fared in terms of ICT awareness and skills, and assess the factors that influenced their use of Internet. We also wanted to understand how their attitudes to the Internet are shaped in a scenario where there is no formal systematic Internet training programme. The study also looks into the gender differences in their perceptions, skills and access. There seems to be little literature on the adoption of ICT among college students in India.

The objectives of the study were to:

1. assess the level of awareness about Internet among graduate students in arts and science colleges of Kerala
2. identify the various factors that affect the students' use of Internet
3. explore gender differences if any, in the students' awareness, perceptions and use of the Internet and the reasons for the difference.

1.1 Limitations of the study

No similar studies have been conducted among college students in Kerala, and, to the best of our knowledge, even in other parts of India. Therefore there is no benchmark for this study. The study had a restricted sample of 200 students. Further, the study was conducted some time back, in 2008 November-December, and things are bound to have changed to some extent. Hence the results generated may be taken as indicative of Internet usage by students.

2 Methods

Five districts roughly corresponding to the south, centre and north of Kerala – Thiruvananthapuram, Ernakulam, Thrissur, Kozhikode and Kannur – were chosen for the study. Two colleges were chosen from each district, one college each from a Panchayat and one from a Corporation/Municipal area. Twenty students including boys and girls were chosen from each college. Students of English Literature, Malayalam, Hindi, and Economics were surveyed in the arts stream. Students of Chemistry, Zoology, Botany, Physics, Home Science and Maths were selected from the science stream. The colleges as well as the students were chosen through convenience sampling.

The study included a survey held with the help of a structured questionnaire with four sets of questions – (i) a general profile (ii) Educational profile (iii) Familiarity with computers and the Internet and various facilitating/inhibiting factors (iv) use of mobile phones. The questionnaire was in English with both open ended and close ended questions.

Focus group discussions were also held with boys and girls in each college to understand the perceptions and experience of students with various ICTs. In discussions of 25-30 minutes duration, 6-10 students participated. These were held within classrooms or in resting places chosen by students.

Of the 200 students who took part in the survey, 193 students answered all questions and seven responded only partially.

3 Analysis of data

3.1 General Profile of Students

Students who participated in the study fall under the age group of 18-20 years. A large majority of them (80% boys and 73% girls), live in Panchayat area. The distribution of the monthly parental income of the students is given in Fig. 1. We see that the monthly parental income of 34% students is below Rs. 5000 and that of 46% students is between Rs. 5000 and Rs. 10,000.

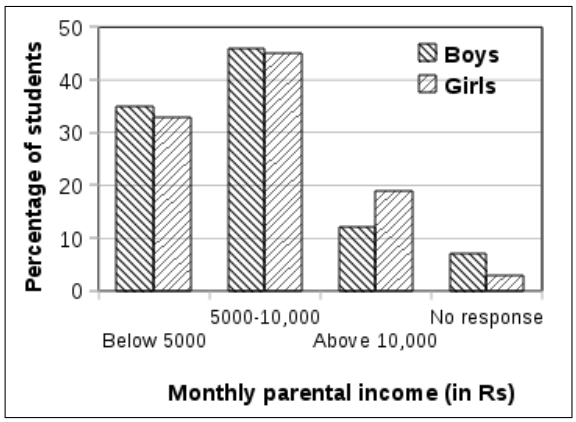

Figure 1: Monthly parental income of the respondents

3.2 Academic Profile of Students

We did a profiling of the schooling and past performance of the students who participated in the study to find out patterns, if any, that suggest relationships between academic performance and adoption of ICT.

An analysis of the academic background of students shows that:

- a majority of the students had studied in Malayalam medium schools. Only 34% boys and 39% girls had English as their medium of instruction at school
- over 80% students, irrespective of their rural urban difference, had scored marks in the range of 50-80%. 10% students had scored above 80% in their last public examination. More boys than girls had scored marks below 50% and above 80%.
- a profiling of interests and other activities shows that, while girls attach great importance to studies, boys have more varied interests such as travelling, socialising, sports etc.

3.3 Exposure to Computers and Internet

Another aspect that we looked into was the extent of exposure the respondents had had to computers and the Internet. Among those who took part in the study, 45% boys and 55% girls had received training in computers and knew basic office applications. The exceptions were respondents who were third year bachelor students who had passed out of school a year before the IT@School project was implemented, and therefore had not received training in ICT at the high school level. Fig. 2 shows the extent of exposure the students had received.

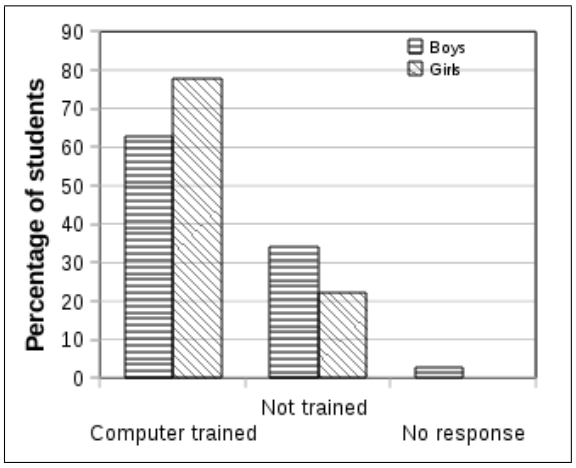

Figure 2: Exposure to computers

Apart from the computer training received at school, many respondents had also received specialised training from private computer centres. The specialised training consists of office packages (MS Word, Excel), Tally, DTP, visual basic or languages (C+, C++, COBOL, Java). 32% boys had training in programming languages compared to 19% girls.

Students attended computer courses on holidays or before/after college hours. These private institutions are seen as gateways to employment by students and their parents, much as the typewriting institutes were regarded a generation before. Students most commonly use word processor (81%) to prepare project reports. A few boys reported using other applications such as image manipulation software and multimedia. None of the girls in the study were familiar with these applications.

This gender disparity in using computer applications need not necessarily be specific to Kerala. A survey of college students in the U.S revealed that while gender differences are not significant in skill levels for common applications, males reported much stronger skills for computer maintenance and somewhat stronger skills in using video/audio software. The few respondents who reported to use graphics and video/audio software reported their skill levels as slightly less than "good" (Salaway, et al, 2006).

Among those who were familiar with computers, fewer girls compared to boys had used the Internet – 58% girls as against 78% boys. Internet use is not promoted by educational institutions or private institutions on which these students depend for training. Thus, even though students, especially girls, gain exposure to computers, they don't seem to gain much insight into the use of computers for information gathering and communication. It is widely believed that computer training enhances one's employability (especially for "desk jobs", as opposed to "menial jobs"), and publicity by private computer institutes continues to hitch on this promise. Yet training in Internet applications has not gained recognition among entrepreneurs and the public.

Another critical factor is the difference in the opportunities available for boys and girls to interact and learn from each other. In Kerala, boys are given a wide berth when it comes to social/peer interaction: it is considered quite natural for boys "to hang out". Social norms are stringent for girls: they often cannot leave the house without an escort, unless it is to their college/tuition class, in which case they are expected to return at an appointed time without fail.

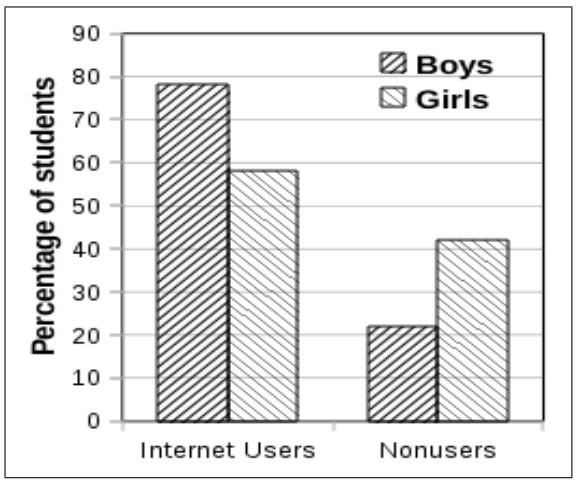

Figure 3: Gender difference in Internet use.

A large number of girls said that they did not have anyone to demonstrate the use of Internet applications. This is true even in the case of girls who have a family member (usually an older or younger brother) who accessed Internet. Says a girl student from Kannur, "Internet is very useful for education. You can't imagine the pain of those who can't use the Internet". Similar sentiments were echoed by girls who expressed their desire to explore the net.

Not knowing how Internet could actually "help" them was a problem for boys and girls alike. They depended on books and notes handed down by teachers, and accessed Internet only when they had a project or assignment due. They gathered information without any critical awareness of the quality of content that surfaced on a casual search of the net. When asked about the sites they accessed, very few students were able to give details of websites.

3.4 Ability and Confidence to use Internet

To assess ability of the students to access Internet, we posed a question as to whether they used Internet by themselves or with help of someone. While 59% boys used Internet alone, only 27% girls did so. In other words, more girls than boys were using Internet with support or by proxy. More girls (51%) coming from urban background used Internet without support compared to girls from a panchayat area (25%). But among boys, a large percentage (78%) from a rural background accessed Internet by themselves.

During discussions with the girls, we found that girls browsed Internet mostly to check examination results published by universities or to collect information for their class assignments. But this was most often a group activity, where one of the girls would take the lead. These girls usually depend on net-savvy friends or brothers to browse for exam results or to collect material for their assignments. When asked why they did so, they said they did not like themselves to be seen 'fumbling on the computer' or they 'got lost while many sites opened up' and 'did not know how to return to what they were looking for' or 'what if they didn't get what they wanted', etc.

Boys used Internet mostly for gathering information for assignments, to know exam results or notifications by university, for sending and receiving emails, downloading music and for chatting. Very few students were found to be using social networking sites such as Orkut and Facebook (only 7 students among those surveyed used these sites regularly). Fig. 4 shows the percentage of students who use the Internet.

Confidence levels among boys and girls in accessing Internet for purposes such as for gathering information is not high. ("Internet is a good thing – but 75% of the people including students don't know how to use it" was the opinion of a final year degree student). Out of the 81 responses from a sample of 100 boys, 40 boys (roughly 50%) said they felt very confident. Only 46 girls in a sample of 100 were willing to respond to the same question, of which only 20 girls said they were confident. 8% of the boys and 6% of the girls among the users do not feel confident at all.

3.5 Access to Internet

Of the ten colleges covered by the study only four provide Internet access to students. In one of the colleges, Internet facility was withdrawn (following complaints that students were "fooling around on Orkut") and later restored, but administrative problems continue to dog the smooth functioning of the computer cell. Although all the college teachers/principals we

spoke to acknowledged that ICT enabled technologies have radically altered ways in which information is perceived and transmitted, they did not consider on-campus Internet facility a priority for students. They don't seem to realize the inherent contradiction in their perception.

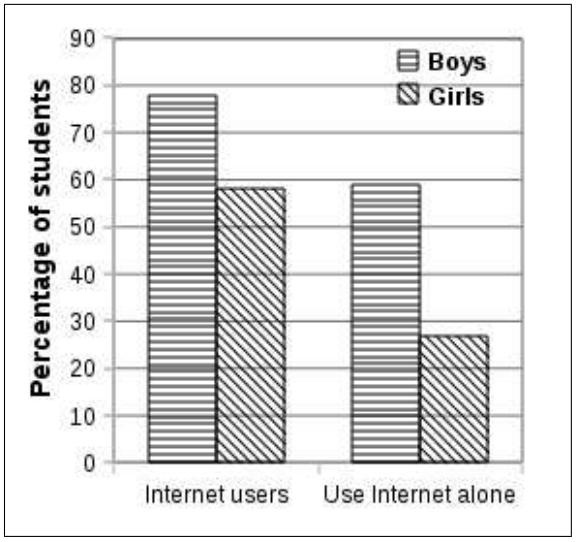

Figure 4: Students who use the Internet alone or with support

With curriculum structured on conventional lines, students do not consider Internet as integral to their learning process. In colleges which provide Internet facilities we found that Internet was being accessed by gender specific groups of boys and girls.

The maximum time spent by students who regularly log on to the net was between 4 and 5 hours a week. These students reported their interest in Wikipedia, search engines like Yahoo and Google and social networking sites like Orkut and Facebook. During discussions students also mentioned some music sites which they often visited.

Over the last few years, the number of Internet cafes in Kerala has grown considerably. With less than 20% student respondents having Internet connectivity at home, the only access points available are Internet cafes. In some places there are cafes in the vicinity of the college, in some others there are none. 45% boys and 18% of girls frequent cafes. The girls spoke to us about several socially constructed inhibitions in visiting cafes. Of the respondents, 19 girls (as against 9 boys) were afraid as to what others would think of them if they go to Internet cafes. 33 girls and 15 boys reported that their parents did not approve of them going there.

Negative media reports on pornography, manipulation of photos, identity thefts etc. involving cafes have affected how people (in this instance, parents and teachers) perceive these centres. Visiting cafes was one way of earning notoriety and being branded as a person of dubious character. During discussions with students of a college, they said that two girls in the colleges had a 'bad reputation' for frequenting Internet cafes. In this particular case, the Students Union had given a complaint to the management, and the students were issued a strong warning against going to cafes. This incident had cemented the fear of Internet among girls who knew very little of its use.

During the discussion, many girls expressed their fear for privacy and security (such as passwords or identities being stolen) at Internet cafes. Those who visit cafes took along a friend or family member or they only visited cafes they were quite familiar with.

Much of the existing research among school students abroad shows that there is clear difference between computer use at school and at home (Facer, *et al.*, 2003). Frequency of computer use in the home is higher than at school and that students explored different modes of learning with computers at home than at school. We also found in our study that students who had Internet facilities at home accessed the Internet more extensively.

A study conducted among secondary school students in England in 1999 showed significant

gender differences in terms of access to computers at home, frequency of using computers and the applications students spent most time using ICT (Harris, 1999). Though our study revealed no significant gender difference in access to Internet at homes, we found that parents place restrictions on their daughters surfing the net.

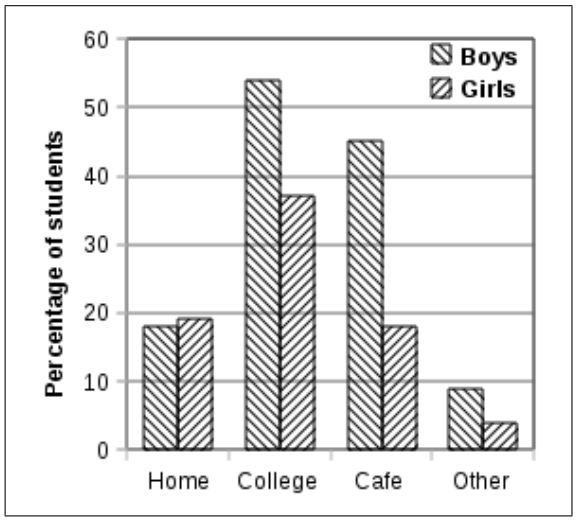

Figure 5: From where students access the Internet

The study reveals that the place of residence – panchayat/non-panchayat – is a determinant in access and skill of students in using Internet technologies. There is high disparity in the ease of access of students from a panchayat area and that of a non-panchayat area. Out of the 153 respondents living in panchayat areas, 20 (13%) students access the net from home while 17 (37%) out of 45 respondents living outside of a panchayat access the net from home. While 56 respondents out of 153 (36%) from the panchayat area "don't know to use the Internet at all", only 10 respondents out of 45 (22%) from a non-panchayat area felt so.

Fig. 5 shows the percentage of students who access the Internet from different places such as home, college, Internet cafes and other places. Due to problems of access, the frequency of use of Internet by girls was also very low. Only 9% said they used Internet frequently as against 18% boys. Incidently, many girls who did not use Internet had some male members of their family constantly accessing the net. This underscores the stark reality of gendered access to ICT within families. The girls suggested that if they were provided facilities within their college, they would spend more time to explore the net.

3.6 Socio-economic Status and Access to New Technologies

The study also looked into social demarcation in Internet usage, with two indicators family income and proficiency in English. Even within the same income groups, fewer girls have gained access to the Internet when compared to boys (see Table 1). The difference is pronounced among those from lower income families for every girl who has used Internet, there are two boys who have done so. While girls are at a great advantage in terms of computer literacy even in the lower income group,

Table 1: Gender difference in family income and Internet use.

Monthly family Income	**Boys (%)**			**Girls (%)**		
	Used the Internet	*Never used the Internet*	*Total*	*Used the Internet*	*Never used the Internet*	*Total*
Below Rs. 5000	67	33	100	33	67	100
Rs. 5000-10,000	85	15	100	71	29	100
Above Rs. 10,000	100	0	100	79	21	100

the significant drop in Internet usage by these girls points to how new technologies are distributed in an inequitable social milieu.

Another difference relates to language. From Table 2 we can see that students from English medium schools are at a relative advantage. English language as a barrier for accessing the net is more for girls than boys. Only 45% girls with a Malayalam medium background had accessed the net, as against 94% girls with an English medium background. The corresponding figures for boys are 71% and 88% respectively. This shows boys have been able to overcome the language barriers in accessing the net marginally. A combination of several sociological factors including better accessibility facilitated by freedom to check out Internet cafes, and freedom for peer interaction could have contributed to this.

Table 2: Gender difference in medium of study and use of Internet.

Medium of study	**Internet users (percentage)**	
	Boys	*Girls*
English	88	94
Malayalam	71	45

The IT@School project implemented in more than 2,000 schools in Kerala has made considerable contribution to bridging the digital divide among children cutting across various socio-economic groups. Still computer and the Internet are largely perceived as accessible only to English language users.

3.7 Use of Mobile Phones

86% boys and 70% girls use mobile phones. Cheaper handsets and affordable call rates have made mobile phones more accessible for students than before. 86% students make use of mobiles for calls, text message and to listen to radio broadcasts. Filming is a favourite with 40% students. GPRS and file sharing are not uncommon.

When compared with use of Internet, use of mobile phones is high (86% boys and 70% girls), which demonstrates the high adoption of ICT when it easily accessible and affordable.

During discussions, the girls said that 'the tricky point' for some of them was how far parents 'trusted them with a mobile'. To be allowed to have their own phones, the parents had to be convinced that the children will not overstep their boundaries. Parents seemed to perceive a danger of their daughters 'being troubled or getting into trouble with boys'. We were able to understand from the discussions that media reports of misuse of mobile phones among students have created a scare among parents.

4 Conclusion

ICT can be useful for learners of all kinds, because of the resources available on the Internet, applications that make it possible to explore subjects and the possibilities of networking among learners and teachers. However, the access to this technology is often limited for arts and science students of Kerala because of various reasons.

While Kerala has made considerable progress in improving computer literacy of its school students, it is yet to create opportunities for them to be equipped in new information and communication technologies as they go for higher education. The diffusion of Internet exemplifies the reality of globalisation, and education needs to be geared towards enabling our students to thrive in this new world order. "Blended learning" using ICT (especially Web-based systems) combined with lectures, books, and other traditional media and ways of

teaching is already the norm in higher education sector of many developed countries (Collis & Wende, 2002).

Students of arts and science colleges, as compared to students of professional courses, do not receive exposure to ICTs since their courses are largely modelled on conventional pedagogy. The three year graduation course does not involve any ICT related activity. There are no ICT programmes to build on the capacity of the students as visualised by the UGC at the college level. Efforts in this direction are ad hoc, and not systematised.

The present study also demonstrates the gender divide in the access to ICT, and the social acceptability of accessing Internet. The socio-cultural ethos of Kerala makes Internet out of bounds for girls, unless they are from high income groups who can afford connectivity at home. Although Internet cafes have proliferated the landscape of Kerala, these remain male domains, denying safe and friendly access to women.

New learning spaces need to be created to address these concerns within institutions. Networked computing facilities provided by colleges are inadequate. Colleges should provide more networked computers to students, and facilitate fair and equitable access to Internet for both boys and girls.

Training in ICT needs to be imparted to both students and the faculty members of arts and science colleges of Kerala. Internet literacy does not imply skill sets alone. It also implies knowledge about safeguards, guidelines with which we need to arm our younger generation. Women-friendly/Women-only Internet cafes need to be established and promoted by organisations like SPACE, Kerala IT Mission etc.

Acknowledgements

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Annexure: Survey Questionnaire

ICT Use among Students of Arts and Science Colleges in Kerala
Questionnaire

Code No. ____

Personal Details

Name :

1. Gender : ☐ Male ☐ Female
2. Age :
3. Marital Status : ☐ Married ☐ Unmarried
4. You live in a : ☐ Panchayat ☐ Muncipality ☐ Corporation
5. Monthly family income :
   ☐ Below Rs 5,000
   ☐ Rs 5,000-10,000
   ☐ Above Rs 10,000
6. Religion : ☐ Hindu ☐ Christain ☐ Muslim ☐ Other
7. Which of the following activities interests you most (rank the activities below in order of your interest, giving 1 to the one that most interests you and so on.)
   ☐ Studies and related activities
   ☐ Hobbies/games
   ☐ Socialising with friends
   ☐ Others (Please specify).....

Educational/technical background

8. The school you studied is located in : ☐ Panchayat ☐ Muncipality ☐ Corporation
9. Medium of instruction at school : ☐ Malayalam ☐ English ☐ Other
10. Academic performance in your last exam : ☐ Below 50% ☐ 50%-80% ☐ Above 80%

Computer, internet and You

11. Have you undergone any computer course? : ☐ Yes ☐ No
12. Which of the following applications do you use in a computer?
    ☐ Word processor (Word, Open Office Writer etc)
    ☐ Spread sheet (Excel, Open Office Calc etc)
    ☐ Image editors (Photoshop, Gimp etc..)
    ☐ Others (Please specify).....
    ☐ I have never used any computer applications

13. Have you ever used the internet? ☐ Yes ☐ No

(If No, go to Question 21)

14. If yes, rank the following internet services according to your use. (Give 1 to the service you use the most, 2 to the service you use next and so on)

- ☐ Search
- ☐ Chatting
- ☐ Email
- ☐ Games
- ☐ Blogging (blogspot,wordpress etc)
- ☐ Social Network
- ☐ YouTube/Flickr
- ☐ Wikepedia, MIT open course ware etc
- ☐ Others (Please sphecify) .....

15. Which of these statements best describes the way you feel about the internet?

- ☐ I feel very confident about using the internet
- ☐ I feel I can manage somewhat
- ☐ I'm not confident

16. From where did you learn to use the internet?

- ☐ Institution
- ☐ Friends/relatives
- ☐ Self-taught
- ☐ Others (Please specify) .....

17. For how long have you been using the internet?

- ☐ For less than one year
- ☐ For more than one year

18. How often do you use the Internet?

- ☐ Frequently
- ☐ Occcasionally
- ☐ Rarely

19. From where do you access the internet?

- ☐ Home
- ☐ College
- ☐ Internet cafe
- ☐ Others (Please specify).....

20. Which are the websites you visit frequently? (Please specify 3 names)

(1).....

(2).....

(3) .....

21. Which of the following factors affect your internet usage? (Please tick any 4)

- ☐ I'm not interested in internet
- ☐ I dont know how the internet can help me
- ☐ I dont know to use the internet at all
- ☐ There is no one to show me how to use the internet
- ☐ My parents do not approve of me going to internet cafes
- ☐ I'm afraid what others will think of me when I go to an internet cafe.
- ☐ I personally dont like going to internet cafes
- ☐ I don't have the money to pay at internet cafes
- ☐ Others (Please specify).....

22. Does any one in your immediate family use the internet? ☐ Yes ☐ No

22.1 If yes, how is he/she related to you?.....

23. Do you think that your institution supports the use of computer/internet among the students? ☐ Yes ☐ No

24. In general, you think the internet is .....

.....

25. In your opinion, how does the internet support education?.....

.....

26. In your opinion, how does the internet support employment oppurtunities?

.....

.....

27. Do you think college students should be provided training in computers and internet? ☐ Yes ☐ No

Mobile Phone and You

28. Do you use a mobile phone? ☐ Yes ☐ No

(If No, go to Question 30)

29. Which are the services you use on your mobile phone? (Tick all the relevant options)

- ☐ Voice Call
- ☐ SMS
- ☐ Multimedia Messages
- ☐ GPRS/Internet

- ☐ File sharing
- ☐ FM Radio/lisetening to music
- ☐ Filming (photo and video)
- ☐ Others (Please specify) .....

30. If you dont use a mobile, what are the reasons for not doing so? (Tick the appropriate response)

- ☐ I dont like using a mobile phone
- ☐ My parents dont allow me to use a mobile
- ☐ I cant afford a mobile phone
- ☐ Others (specify) .....

SPACE was formed and nurtured by a team of professionals and social activists across Kerala who share the dream of freedom of knowledge. SPACE collaborates with institutions and people from government, non-government, corporate and academic backgrounds for greater outreach and impact. SPACE works to innovate, create and offer products and services which advance social and economic development. The long-term goal of SPACE is to promote FOSS-based ICT as a political tool to help the social and economic development of all, especially marginalised communities.

From its inception in 1968, in the 'pillorised' Netherlands, Hivos has presented itself (on occasion of sheer necessity) as a self-willed group not afraid to experiment or to allow room for inspired individuals to express their contrary ideas. During the last 40 years, Hivos has developed from an aid organisation for the underprivileged in developing countries to become a modern network organisation striving for freedom, a pluriform society, and the strengthening of local and boundary-transcending social movements in a rapidly changing world. Hivos supports SPACE.

SOCIETY FOR THE PROMOTION OF ALTERNATIVE COMPUTING AND EMPLOYMENT

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