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**Garima**  
Research Scholar, CS Azad  
University of Agriculture and  
Technology, Kanpur,  
Uttar Pradesh, India

**Dr. Sangeeta Gupta**  
Assistant Professor, CS Azad  
University of Agriculture and  
Technology, Kanpur,  
Uttar Pradesh, India

## Impact of information communication technology use on students

**Garima and Dr. Sangeeta Gupta**

### Abstract

Information and Communication Technologies (ICT) are defined as all devices, tools, content, resources, forums, and services that can be converted into or delivered through digital forms, which can be deployed for realizing the goals of teaching learning, enhancing access to and reach of resources, building of capacities, as well as management of the educational system. These will not only include hardware devices connected to computers, and software applications, but also interactive digital content, internet and other satellite communication devices, radio and television services, web-based content, interactive forums, learning management systems, and management information systems. These will also include processes for digitalization, deployment and management of content, development and deployment of platforms and processes for capacity development, and creation of forums for interaction and exchange. The 21st century has seen ICT use becoming an inevitable part of life. Moreover, the ICT has the impact on students which enable them to any place learning. Use of the new technology of ICT, the off-campus delivery was an option for the students who were unable to attend the classes. Now a days, more students are accepted with this technology- facilitated learning settings. There is one of the examples that show the impact of ICT for the student. Traditional classroom learning has provided to learning in work-based settings which enable them to the access of courses and programs from their study places. This strategy not only have the impact of convenience for students but help to save the costs associated with the travel and time away from school and also situation and application of the learning activities within meaningful and useful contexts. Thus, the time for students to study will not be wasted. ICT also has the impact on students as it allow student to undertake education anytime. This flexibility that causes the utilization of ICT has enhanced the availability of student's just-in-time learning.

**Keywords:** Information communication technology, impact of ICT, digitalization, interactive forums, management information systems, traditional classroom

### Introduction

The role of information communication technology to develop social research, teaching and extension to improve quality of life in rural area is well established. Communication technologies can provide assistance to average Indian students to get relevant information regarding technologies, support, finance and management. The social extension mechanism is becoming dependent on communication technology to provide appropriate location and specific technologies for the person in order to furnish timely and proficient advice to the student. ICT can be best mean not only to develop social extension but also to expand agriculture research and education system. The information and communication technology can generate new opening to bridge the gap between information haves and information have not in the developing countries. The task force on "India as knowledge super power" emphasized the need to harness information communication technology for community transformation. The emerging ICT have momentous role to perform in social development. There are many possibilities of integration of technology for the overall social and rural development. Today a new paradigm of social development is fast emerging : in both developing and developed countries the overall development of rural areas expanding in new direction; old ways of delivering important services to citizens are being challenged; and traditional societies are being transformed into knowledge societies all over the world.

ICT is very helpful for the every student as it bring many of positive impact on their education. Firstly, students will be motivated to accept to learn and to join learning activities. Secondly, with the impact of ICT, the quality of work of students can be improved and then they can gain self-esteem or confidence to perform enhanced learning tasks. Thirdly, with the utilization of ICT, students allow more flexible and more personalized learning which enabled more work to be finished. Fourthly, ICT enable collaborative learning with little indication of the isolated

**Corresponding Author**  
**Garima**  
Research Scholar, CS Azad  
University of Agriculture and  
Technology, Kanpur,  
Uttar Pradesh, India

student. Fifthly, it has an impact on heightening the student motivation through hands-on-activity, visual representations and improved modes of presentation. By using the ICT, it also has an edit effect to change the quality of student's work and practical. For the student who has poor handwriting and languages skills, it can help them by providing the word processing. Besides, the impact of ICT on student is to equalize individual differences and has particularly dramatic effects for students with special needs. As a student can work at the pace and intensity suitable to their demands, it has an impact on boosting self-pacing with increased abilities to deal with individual learning styles.

### Objectives

1. To study the socio economic background of students.
2. To know the impact of Information communication technology use on students.

### Research Methodology

To complete the above objectives by applying the appropriate research methodology, the study was conducted in district Kanpur Nagar in year 2020-2021, Chhatrapati Sahuji Maharaj University, Kanpur was selected purposively for the study. From the selected university eight colleges were selected randomly with target of 50 students per college. Thus 400 students were selected. Dependent and independent variables namely, age, education, caste, type of family, size of family, annual income, occupation, knowledge, competencies, purpose, impact, constraints and suggestions etc. were used. The data also collected were subjected to statistical analysis for which statistical tools, such as percentage, rank, standard deviation, weighted mean, chi-square, correlation coefficient.

## Result and Discussion

### Annual Family Income

**Table 1:** Distribution of the students according to their annual family income

Annual family Income	Boys		Girls		Total	
	N	%	N	%	N	%
Up to Rs. 1 Lac	20	5.0	30	7.5	50	12.5
Rs 1 Lac to 2 Lac	35	8.7	45	11.3	80	20.0
Rs 2 Lac to 3 Lac	85	21.3	77	19.2	162	40.5
Rs 3 Lac and above	60	15.0	48	12.0	108	27.0
Total	200	50.0	200	50.0	400	100.0
$\chi^2$	4.978				P>0.05	

The perusal of table 1. shows the distribution of students according to their annual family income, 5.0% boys and 7.50% girls belonged to families with annual income up to 1 Lac, while 8.7% boys and 11.30% of girls belonged to families with annual income between Rs 1 Lac and 2 Lac. Further 21.3% of boys and 19.2% of girls belonged to families with annual income between Rs 2 Lac to 3 Lac. Whereas 15.0% of boys and 12.0% of girls belonged to families with annual income Rs 3 Lac and above. 20% students belong to family with annual income between 1 Lac to 2 Lac and 40.5% of students were having 3 Lac and above as their family annual income. The observed value of  $\chi^2$  (4.978) was found to be significant at 5% level Thus, in finding we can conclude that majority of students belong to families with annual income between 2 and 3 Lac.

### Educational impact

**Table 2:** Distribution of students according to Educational impact of ICT on them

S. No.	Educational Impact	Symbol	Agree	Indifferent	Disagree	Mean Score	S.D.	Rank
1.	Promote active learning and authentic information	A	265 (66.3)	65 (16.3)	70 (17.5)	2.49	2.07	II
2.	tools to increase student 's productivity	B	235 (58.7)	105 (26.3)	60 (15.0)	2.44	2.01	III
3.	scaffolding to support higher level of thinking	C	215 (53.7)	60 (15.0)	125 (31.3)	2.23	1.88	VI
4.	Increase learners freedom and overcome physical disabilities	D	205 (51.3)	100 (25.0)	95 (23.7)	2.28	1.89	IV
5.	learn in an autonomous way & do exercise	E	200 (50.0)	108 (27.0)	92 (23.0)	2.27	1.88	V
6.	Enhance student's motivation	F	300 (75.0)	68 (17.0)	32 (8.0)	2.67	2.20	I
7.	Higher order thinking skill	G	180 (45.0)	108 (27.0)	112 (28.0)	2.17	1.80	VII

N =400

The table 2 divulge the distribution of respondents according to educational impact of ICT on students, 75% of students were agree and 17% of the students were indifferent the fact of ICT enhance student's who motivation with mean score 2.67, standard deviation 2.20 and rank I, followed by 66.3% of the students were also agree to promote active learning and authentic assessment of educational impact with mean score of 2.49, standard deviation 2.07 and rank II. 58.7 per cent of students were strongly agree and some of them near about 27% of respondents were indifferent to provide tools to increase student's productivity with mean score of 2.44, standard deviation 2.01 and rank III. Whereas 51.3% of the students were fully convinced or agreed to increase learner independence and overcome from physical disabilities with mean score of 2.28, standard deviation 1.89 and rank IV.

Among all respondents near about 50% of respondents agreed and only 27.0% were indifferent to fact of ICTs help in learn in an autonomous way to do exercise practice with mean score 2.27, standard deviation 1.88 and rank V. In overall study of research area 53.7 per cent of students agreed to provide scaffolding to support higher level of thinking with mean score 2.23, standard deviation 1.88 rank VI, while 45% of students agreed that higher order thinking skills such as critical, analytical, problem solving etc. may be developed through online education.

So it is concluded that most of the respondents agree that education through information communication technology can enhance motivation in students and promote them to active learning and authentic assessment of educational impact towards online education.

## Social impact

**Table 3:** Distribution of students according to Social impact of ICT on them

N= 400

S. No.	Social Impact	Symbol	Agree	Indifferent	Disagree	Mean Score	S.D.	Rank
1.	Creates close relationship & creativity with people living at distance place	A	240 (60.0)	85 (21.3)	75 (18.7)	2.41	2.01	III
2.	Provide freedom to make new friends	B	255 (63.7)	104 (26.0)	41 (10.3)	2.54	2.08	II
3.	do more imaginative work	C	235 (58.7)	90 (22.5)	75 (18.7)	2.40	1.99	IV
4.	Internet destroy society & creates addiction	D	176 (44.0)	110 (27.5)	114 (28.5)	2.16	1.79	V
5.	Raise awareness on current social issues	E	290 (72.5)	76 (19.0)	34 (8.5)	2.64	2.17	I

The perusal of table 3 indicates the distribution of respondents according to social impact of ICT among students, 72.5% of students were agree to raise awareness on current social issue with mean score of 2.64, standard deviation 2.17 and rank I, followed by 63.7 per cent of respondents agree and 26.3 percent indifferent to provide freedom to people to make new friends with mean score 2.54, standard division 2.08 and rank II. 60 Per cent of students were agreed to social impact of creates close relationship and creativity with people living at distance place with weighted mean 2.41, standard deviation 2.01 and rank III. on other hand more than 58.5% of students were agree to social impact to do more imaginative work with

standard deviation 1.84 and rank IV, while 41% of students agree and 27.5% were indifferent respectively to internet destroys society and creates addiction with mean score 2.16, standard deviation 1.79 and rank V.

In conclusion we have found that majority of students agree that information communication technology can affect society by raise awareness on current social issue provide freedom to people to make a new friend and creates close relationship and creativity with people living at a distance place.

## Psychological impact

**Table 4:** Distribution of students according to Psychological impact of ICT on them

N= 400

S. No.	Psychological Impact	Symbol	Agree	Indifferent	Disagree	Mean Score	S.D.	Rank
1.	Feeling insecurity & stress during use of computer	A	164 (41.0)	110 (27.5)	126 (31.5)	2.10	1.73	V
2.	Feel stress by using computer and internet	B	220 (55.0)	76 (19.0)	104 (26.0)	2.29	1.92	III
3.	Bad effect on self esteem	C	188 (47.0)	116 (29.0)	96 (24.0)	2.23	1.84	IV
4.	Feel depressed or irritable when stop computer	D	260 (65.0)	68 (17.0)	72 (18.0)	2.47	2.06	II
5.	Feel bore, empty, joyless in life without internet	E	360 (90.0)	24 (6.0)	16 (4.0)	2.86	2.35	I

The data pertaining in the table 4 shows the impact of psychology on students, 90% of students were agree to feel boring, empty, joyless in life without computer and internet with mean score of 2.86 SD 2.35 and rank I, followed by 65 per cent of students feel stress, moody, depressed or irritable when anyone attempting to cut down or stop computer and internet with mean score 2.47, SD 2.06 and rank II. 55 per cent of students feel stress by using computer and internet with mean score 2.29, standard deviation 1.92 and rank III, while 47% of students said that computer can affect a psychologically negative effect on their self steam with mean

score 2.23, standard deviation 1.84 and rank IV. Near about 41% of students were affected psychologically and feeling insecure and stressed during use of computer and internet with mean score 2.10, standard deviation 1.73 and rank V.

Finding reveals that most of the respondents were agree they feel bore, empty, joyless in life without computer and internet but another hand some of them were feeling insecure during use of computer and feel stress also.

## Economic impact

**Table 5:** Distribution of students according to Economic impact of ICT on them

N =400

S. No.	Economic Impact	Symbol	Agree	Indifferent	Disagree	Mean Score	S.D.	Rank
1.	waste of time and money	A	85 (21.3)	110 (27.5)	205 (51.3)	1.70	1.35	III
2.	Payments on subscription only	B	168 (42.0)	88 (22.0)	144 (36.0)	2.06	1.72	II
3.	Difficulty in new program due to highly expensive	C	264 (66.0)	90 (22.5)	46 (11.5)	2.55	2.10	I
4.	Earn money through part time job in cyber café	D	44 (11.0)	88 (22.0)	268 (67.0)	1.44	1.05	V
5.	Develop any software, app, program or games to sell	E	36 (9.0)	120 (30.0)	244 (61.0)	1.48	1.07	IV

Table 5 reveals that distribution of respondents on behalf of economic impact, 66% of students were agree to difficulty in purchasing new program due to highly expensive with mean score 2.55, standard deviation 2.10 and rank I followed by 42% of students were agree and 22% indifferent to do payment of internet to subscription only with mean score 2.06, standard deviation 1.72 and rank II. More than 21% of students were agree that computer and internet is totally

wastage of time and money also with mean score of 1.70, standard deviation 1.35 and rank III. whereas as 9% students were agree and 30% were indifferent that computer can develop any software, Android app, program or games for selling purpose with mean score of 1.48, standard division 1.07 and rank IV. While 11% of students were agreeing that they can earn money through part time job in cyber café with mean score 1.44, standard deviation 1.05 and Rank V.

These above concluding lines indicate that majority of students face difficulty in purchasing new program due to its expensiveness which is really going high day by day including GST also. But some of them were in favor of economic impact that they can earn money through online part time job.

### Conclusion

Information and Communication Technology is the fusion of computers and telecommunications. It describes exciting and innovative ways to provide learners lifelong global access to information, learning and support and computers enable people to work creatively.

Most of the respondents agree that education through information communication technology can enhance motivation in students and promote them to active learning and authentic assessment of educational impact towards online education. ICT can affect society by raising awareness on current social issue and it provide freedom to people to make a new friend and creates close relationship and creativity with people living at a distance place. Majority of students feel bore, empty, joyless in life without mobile/computer and internet but on the other hand some of them were feeling insecure during use of computer and feel stressed also. While, purchasing new program due to its expensiveness which is really going high day by day including GST also. But some of them were in favor of economic impact that they can earn money through online part time job. Thus, in this era when globalization is gearing up, the use of Information and communication Technology has become very inevitable in each and every domain.

### Recommendations and Suggestions

1. Maximum students have no knowledge about computer system although they have enough knowledge about mobile phone. So in the computer era each and every student should have proper knowledge about computer as it helps them in improving their academic performances.
2. There is need that the institutions should be invest more in computers and related technology as means of not only solving accessibility problem but improving on the availability of the facilities especially computers in the classrooms and computer laboratories.
3. The power supply is one of the major problems. The institution should buy generators in case of blackouts. Currently students suffer when there is blackout and school work becomes stand-still as they cannot use these ICT facilities. So Computer laboratories could be increased on campus and that could be done with private business people.
4. Due to highly expensive technology, students were not able to purchase personal computer / laptop but the current government has been also emphasizing on online study by providing tablet to each enrolled students at free of cost under the UP free tablet scheme 2021.
5. Maximum number of college/institutes are having old programming computer of window 2000, 2003 etc., due to this old technology students may always suffer from downloading problems. So institutes must make provision for purchasing modernized computer system or update the old ones.

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