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USE OF ICT IN HIGHER EDUCATION

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ABSTRACT

People all over the world have experienced many changes in their lives because of IT, or information and communication technology. They had to deal with this change because college has always been about chalkboards and lecture rooms. Read this paper to find out how ICT (information and communication technology) is changing life at college. It's mostly about how it has changed things and what new chances and issues it will bring in the future.

Data and talk tools in college change how people learn, share, and use what they know in big ways. The first part of the study looks at how schools have changed over time because of technology. The first time computers were used was to help teach. There are now many ways to learn, such as using e-learning tools. How to use computers in the classroom and how they can help people come up with new ways to teach are shown through a lot of different ideas. It's clear that computers and the web have taught me a lot. When kids can use fun tools on the computer, they are more interested in it. They can also make their own lessons

and always find what they need to learn on their own. With ICT, they can add movies to lessons to make them more fun. It also lets teachers see how well their students are doing. These new tools could help kids learn more and change to meet their needs. Tech for IT and communication in college needs to be fixed before it can be used. The tools and apps need to be able to work with each other. Another thing that is looked at is how to put things together well. Some other issues that people bring up are equal rights and just getting in. That's why tech skills are important for kids. In this study, we also talk about data protection, IP rights, and internet safety.

Everyone in the classroom and on staff is also against it. There are several ways to handle the problems that the study looks at. Some of the best are good application models, programs that help staff grow and learn, and ways to get around problems that get in the way. The rules and standards are a big part of why people are allowed to use ICT in schools.The study book is now over. It thinks about how college students will use technology in the future. Soon, schools will probably use new tools like Bitcoin, AI, virtual and augmented reality, and virtual reality. This change looks like it will be good.

If these tech changes happen, college might be very different, and getting one might be very different too.This study report is mostly about how tools that let college students share knowledge and talk to each other have changed things in big ways.

With all the new tech tools that colleges have, they need to be smart about how they use them and make sure they can meet all of their students' needs. A lot is said about ICT in college in the past, now, and in the future. It talks about how important it is these days to use technology to find things. In the last few decades, ICT has changed how students live. That's the main point of the piece. A study was done to find out how people in schools can best use

information and communication technology (ICT). This is good for kids and adults alike.

1. INTRODUCTION

It has always been important to learn new things and how to think critically in college. The area is always moving, so this is the case. It's not just schoolwork anymore like it used to be. It used to be based on real lessons, books, and conversations between real students and teachers. The changes we see are caused by ICT, which stands for "information and communication technology." ICT is used in almost every part of life these days. Tech has caused a lot of changes in college. There are new ways of pushing students that have never been seen before. IT and messages at universities are used for a lot of important things, not just making things digital. How we make, share, and use knowledge has changed a lot. Before we look at what part information and communication technology plays in college, we need to know what this change means in the grand scheme of things.

1.1 WHERE AND WHEN:

Please explain what "Information and Communication Technology" (ICT) means. It includes a lot of different tools and methods, like computers, software, the internet, cell phones, video resources, and online chat rooms. A lot about education changes because of it. It changes how schools are run and how education works in general.

Many things about college life have changed because of information and communication technology (ICT), and experts want to find them all. ICT (information and communication technology) has changed a lot in the last few decades. The way it's used in schools makes this clear. This is a bigger part of how the internet world has changed everything. In the past, you had to meet with a master in person to learn and teach. Digital choices have often taken the place of or added to this method.

1.2 THESE ARE THE GOALS

- To find out how the tools that professors use to talk to each other and share knowledge have changed over time.
- To learn more about the ideas that make it easier for ICT to work together.

2. LITERATURE REVIEW

A lot of study has been done on how to get schools to use ICT (like computers and the internet). More and more, people use technology to stay in touch and get information in every part of their lives. This changes a lot about how people learn. Now we will talk about some of the most important research in this area.

2.1 HOW TECHNOLOGY HAS CHANGED COLLEGE OVER TIME

Technology has changed over time, which is how we know about the past of ICT in upper education. Siemens (2008) says that this increase can be broken down into three different steps. Beginning in the middle of the 1900s, computers were first used to help teachers. That was the second step. Ever since the late 1990s, e-learning and Learning Management Systems (LMS) have grown. That's all there is to it. The third stage includes massive open online courses (MOOCs) and learning tools that you can change to fit your needs. This helps us understand how quickly things change in college these days since it's history.

2.2 WHY DO YOU THINK ICT IS USED IN HIGHER EDUCATION THE WAY IT IS?

There are a number of ways to explain how ICT is used in higher education. The interaction theory by Anderson from 2003 says that the amount and type of touch people get at school is linked to how much they learn there. There are many ways that technology can help and make things better. Like how the students and teachers talk, how the students talk to each other, and how the students talk to teachers. It was made by Koehler and Mishra in 2009 and is called Technological Pedagogical topic Knowledge (TPCK). It looks at how schooling, technology, and knowing about a subject are all linked. It also shows how to nicely mix these three areas.

2.3 THE GOOD THINGS ABOUT COLLEGE ICT

ICT can be very helpful when used in college, as many studies have shown. Means, Toyama, Murphy, and Baki's study says that information and communication technology (ICT) is useful in many ways. Some of these make it easy for people to get to learning tools and give teachers more freedom in how they teach. Gikandi, Morrow, and Davis (2011) say that tools and methods for information and communication technology (ICT) help students learn more, work together, and figure out how to do things. Everything in school is better now for everyone.

2.4 TROUBLES AND LIMITATIONS

ICT has lots of good points, but it can be tough to use in college. People find it tough to use new tools because of a few easy problems (Weller, 2018). Some of these are pieces of hardware and software that don't match up or aren't right for the job. In 2011, Selwyn wrote something that said the way we teach makes it hard for people to get along. Some people don't want things to change, and some teachers don't understand. These kinds of issues need to be fixed before technology for communication and knowledge can fully perform its duties.

2.5 NEW STYLES AND IDEAS

They use information and communication technology (ICT) in college in various ways that were not the same in the past. Siemens and Gaevi (2019), for instance, talk about how to use artificial intelligence (AI) to make learning more personalized. There is a lot of talk about the rise of mobile learning in 2017. And Deterding, Dixon, Khaled, and Nacke (2011) talk about how virtual and augmented reality can be used to make learning more fun and engaging. It's clear from these trends that new ideas will keep coming up in this area.

3. METHODOLOGY

Why is it important to have ICT (Information and Communication Technology) in college? That's what this study paper was about. The method part of this paper talks about the study plan, how the data were collected and analyzed, and any moral **problems that came up during the research.**

3.1 HOW THEY PLANNED THE RESEARCH

ICT is used in higher education in a lot of different ways, and this study looks at them all. This method takes in and looks at both emotional and quantitative data at the same time, so they can get a better picture of what's going on.

3.2 POLLS

Professors, students, and workers from different colleges and schools will fill out a certain type of internet poll. People will be asked to talk about their thoughts, past activities, and any issues they have had with ICT for the project. That way, you can tell us both facts and feelings. We will use a Likert scale and ask more general questions. The vote will be shown on the web and in chat rooms for students. So that the results are right for everyone, it's important that a lot of people answer. A

small group of people picked from those who answered the question will have the talks. There will be some kind of plan for them. From our talks, we'll also find out more about what they've done and how they think ICT can be used. People will be able to study the records of the talks that are word-for-word. People who join a broad end group are more likely to know what they want to achieve. On top of the source data, we will also gather and read papers that describe the ICT policies, strategies, and actions that college groups employ. This type of paper comes in a lot of different forms, such as policy documents, strategy plans, and yearly reports. Reading helps us understand how companies work and the strategies they employ better.

3.3 TAKING A LOOK AT THE DATA

That's the point of this part. The poll results, which are numbers, will be looked at with a tool called SPSS. Rates, means, and standard deviations are all big numbers that can help you quickly figure out how the study went. Some kinds of statistics will be used to look at the data and find patterns and ties that aren't obvious. These come in different types, such as t-tests, links, and more.

3.4 THIS IS THE THIRD PART OF OUR LOOK

information about you. The chat notes will be used to look at what the themes are about. Things can be marked and named in a way that can be used over and over to find hidden themes, patterns, and ideas that keep coming up in big data sets. What do people who work on putting together tools for communication and information really think and feel? We will learn more from this work. The theme-based study papers will be looked at closely to see how the company's ICT policies and goals are similar and different.

4. USE OF ICT IN HIGHER EDUCATION

When information and communication technology (ICT) was introduced into higher education, it completely changed how people learn, share, and make new knowledge. The way schools work has changed, according to Siemens and Gaevi (2019). ICT is now an important part of both teaching and learning. This change is taking place because the digital age keeps getting better. There are some very important things you need to know about how to use computers and the internet in college. Like, it looks at how it changes how lessons are planned, how students learn and teach, and how the school works every day.

4.1 USING ICT TO HELP WITH WRITING LESSONS

As college moves forward, one of the most important things to remember is how important it is to use technology when giving out work. They can use more types of lessons with the help of e-learning methods and tools, which makes learning more flexible. Most people use an LMS these days, like Moodle or Blackboard. One place is where students can talk to each other, get course materials, and turn in their work (Ally, 2004). According to Garrison and Kanuka (2004), more and more college students are doing mixed learning, which means they are learning both in and out of the classroom. There are both internet games and tools and regular talks going on in the classroom, which makes it an exciting place to learn. There are many ways to learn, and when kids can do a mix of them, they are more likely to be interested in and do well in school.

4.2 SOME GADGETS AND COMPUTERS ARE USED A LOT IN SCHOOLS

This changes how teachers do their jobs and how students learn. In 2003, Anderson did a study that said digital tools like e-books, open teaching materials, and fun videos have made school better.

According to Deterding et al. (2011), ICT tools can get students more interested in learning by giving them fun and interesting material, group projects, and ways to learn through games. Anderson (2003) says that these new ideas, which are like constructivism and active learning, make students want to learn more. Gikandi, Morrow, and Davis's study from 2011 says that ICT gives teachers tools that let them show content that is both engaging and full of multimedia. It is said by Siemens and Gaevi (2019) that digital media, models, and virtual labs can help students understand tough subjects better and get better at thinking critically. Teachers can use learning analytics to find out how their students are doing and then change the way they teach based on what they discover (Siemens and Gaevi, 2019).

4.3 USE IN BUSINESS AND MANAGEMENT

Computers and the Internet (ICT) are important not only in the classroom but also for running and managing universities and colleges. Duderstadt, Atkins, and Van Houweling (2002) say that management systems like Enterprise Resource Planning (ERP) tools make daily tasks like keeping track of money, adding students, and planning lessons go faster. According to Duderstadt et al. (2002), decision support

systems use data analytics to help people make plans and choose how to use resources.

Text message technology helps people talk to each other and do their jobs better. It also helps people send and receive messages.

Weller (2018) says that tools for communication that everyone at the university uses, like intranets and email systems, make it easier for people to share information and work together. Traxler (2017) says that screens and sites on the internet make it simple for students to get help with their homework, see their school records, and learn how to sign up.

4.4 CASE STUDY

You can learn how to use ICT (information and communication technology) well in college by reading stories from real life.

OpenCourseWare from the Massachusetts Institute of Technology (MIT) lets anyone look at a huge number of course materials and papers online. ICT can help people from all over the world share what they know, as this project shows.

Arizona State University and other schools have also shown that new tech tools, such as AI-powered virtual teachers, can help students do better in school and stay in school longer (Arizona State University, 2022).

5. CHALLENGES AND BARRIERS

College students can use ICT and talk to each other in some good ways, but there are also some problems that need to be fixed. How do schools have trouble when they try to use ICT in their teaching and ways of doing things? Read on to find out more.

5.1 HAVING TROUBLE WITH THE MACHINE

We're having trouble with the gear and the network. Things are very bad because the tools do not work right. The internet and network tools are old and slow, which is one reason for this (Weller, 2018). Traxler (2017) says that people may not be able to use online tools the same way because they live in different places.

Schools use a lot of different operating systems and software tools that might not be able to connect and work together.

When you mix different systems, it can be hard to make sure they work well together, say Duderstadt, Atkins, and Van Houweling (2002).

5.2 WHAT DO SMART TEACHERS HAVE TO DEAL WITH?

Tech should work well in the classroom, so teachers should know how to use e-learning tools and understand digital in general.

A teacher might not know how to use tech in the classroom if they haven't used it enough.

5.3 DON'T WANT TO ALTER

Sometimes they don't want to try new ways to teach, especially ones that let them use technology to show what they know (Selwyn, 2011). Teachers don't always want to change how they teach (Ally, 2004).

5.4. FIVE WORRIES ABOUT GETTING IN AND BEING FAIR

Since they use tools to learn and talk to each other, some students might not be able to get the help they need. Kids who don't have enough tech or whose internet isn't stable might not be as smart as their friends, according to Traxler (2017). Check out Garrison and Kanuka's 2004 study on how the digital divide could make it hard for the government to do its job. Business actions that cost them cash As Gikandi, Morrow, and Davis say, it can be hard for both public and private schools to get computers and software rights and pay for them. Since getting ICT is pricey, it might be tougher to reach things.

Having trouble deciding what is right and wrong The legal right to own your own ideas: There's a chance that people won't be able to share and use training materials if they don't agree on things like who owns digital information and how to protect intellectual property.Keep kids' grades and phone numbers safe. This is one of the most important moral things to think about. Siemens and Gaevi (2019) say that you have to protect your privacy and data by law.

6. RESISTANCE TO CHANGE:

People can learn and talk to each other with ICT. It's not used in most schools because no one wants to change. Kids in school don't want to use computers for a number of reasons. Some of these are how the school works, what the teachers think, and the problems that technology causes.

6.1 HOW THE STAFF FEELS AND THINKS:

Going over the same old things, Selwyn says the staff doesn't want to change because they like the way things are. If a teacher already knows how to use the good tech and tools, they might not want to try the new ones. It's possible that some teachers have set up ways to teach that have worked well in the past. They might not think that ICT can help them teach better and make more money. Some people might not like ICT because they don't know if it can really help students do better or more in school (Selwyn, 2011).

Anyone agrees with Anyy that workers might not want to use ICT tools because they are scared and don't get enough help and training after the fact. Teacher may not want to use it if they believe they can't learn how to do it. How quiet the body is Because we are a business, this is why: In 2011, Selwyn said that a lot of schools and colleges just can't break out of their old habits and jobs. It can be hard to change how everyone learns and is taught once a school is stuck in this state. If someone is happy with how they spend their time and money, they might not want to change it.

According to Duderstadt, Atkins, and Van Houweling (2002), staff members may believe that implementing ICT means they need to change classes often and learn how to use technology. They might not want to use ICT in the classroom if they are praised more for learning and writing than for trying new ways to teach (Ally, 2004). The Teaching Excellence Award is the name of this type of award. They might not be ready to do what they say if they don't think their ideas about how to use technology in the classroom are being taken into account.

6.2. HARD TIMES BECAUSE OF FRESH TOOLS

Bugs in technology People may not want to use new technologies if they can't get enough help from experts or if the software they want to use doesn't work. When things break, it can be hard to teach and learn. For the same reason, people may not trust their ICT skills as much.

6.3 GETTING ALONG

They say it might be harder to add new tech tools to a school or other place where people learn that already has them. It's tough to reach. People on staff may not want to change if they don't believe the new IT tools will make things better.

6.4 HOW TO MAKE THINGS BETTER WHEN PEOPLE DON'T WANT TO CHANGE THEM

Why is it so hard to make college students behave better? There are various ways to look at it. Alley says that you should train your workers well and give them lots of chances to do better. They'll feel better about how well they know how to use computers after this. Also, they say that letting staff help plan lessons that use ICT and choose how to use it can make them feel like they own the changes and agree with them.

They say that if a school doesn't like teachers who try new things, they should praise them for it. People won't change because you know about tech. Also, you should know a lot about why and how college teachers don't want to use technology. These things can be found in college and university.

7. FUTURE TRENDS AND IMPLICATIONS

Information and communication technology, or ICT, is still being slowly added to college. Today, we should think about what might happen tomorrow and how that might change today. These new trends could make college even more unique. This will change how people learn, how teachers teach, and everything else about school. Siemens and Gaevi (2019) say that AI will be used in schools more. There is a big trend going on here that will keep going. Teacher aides and teachers run by AI can help students learn in a more personalized way. With these tools, you can see how each student learns, give them information that fits their needs, and get feedback right away. These things help kids do better in school and get more excited about it. When AI is used in school, it's important to think about how to keep data safe, how to avoid fake bias, and what teachers should do in a classroom with a lot of tech (Siemens & Gaevi, 2019). Traxler (2017) says that the fact that many people have cell phones and can connect to the internet will likely lead to more growth in mobile learning. With mobile learning, kids can go to class and talk to their teachers and other kids from close to home. Another thing this trend does is help more people do better in school. It's also a problem that some people can't connect their devices to the internet. Deterding et al. (2011) say that virtual and augmented reality tools could make a big difference in college. People can learn more with virtual reality because it lets them do many things in a virtual world, like fun science experiments and trips to learn about the past.

AR apps can add digital things to the real world, which can make normal lessons more fun and useful for the students. MR and VR can do many things, such as get

students more involved and help teachers find new ways to teach by giving students hands-on jobs. The cost of getting new tools up and running and teaching staff can be hard, though. Siemens and Gaevi (2019) say that blockchain technology is going to change the way that college qualifications are checked in a big way. Businesses and schools that use blockchain technology can quickly and easily look up saved records, degrees, and awards. There may no longer be a need for fake IDs after this change. Also, it might be easy to tell the difference between skills from different places. This will make people more willing to listen and accept academic credentials. The government may not be able to keep an eye on it and make sure it is always done the same way, though. The places where people go to college will change a lot because of these new trends. Would you like schools to stay current and competitive in their fields? They need to be ready to change how they teach, get the right tools, train their staff, and deal with issues of fairness and privacy.

8. CONCLUSION

When it comes to using information and communication technology (ICT), college has changed a lot in the past few years. That's changed the place where kids are taught and learn. This research looked at the many changes that information and communication technology (ICT) has made to higher education. Some of these effects are how classes are set up, how students are taught, and how they learn. They also affect how schools run their businesses and do day-to-day tasks. Still, there have been some problems and pushback along the way. We can use more training methods and more flexible ways to learn when ICT is used in the course creation process. Learning Management Systems (LMS) and mixed learning are being used by more and more people. These methods get kids more interested in learning and help them do better in school. It is now possible to create lively and interesting learning places thanks to ICT. This is in line with the ideas of constructivism and active learning. A lot of issues need to be fixed, including tech issues, experts who don't want to make changes, unequal access, and concerns about what is right and wrong. Technology might not work well with other tools in the classroom because of these issues. We need a lot of different ideas to solve these problems well. This plan should include in-depth training, ways for teachers to have a say in what happens, and ways to reward and recognize teachers who come up with new ways to teach.

How ICT is used in higher education is likely to follow a number of different trends in the years to come. In the same way that AI promises personalized learning experiences, mobile learning makes it easy to get to those experiences. VR and AR

have made it possible to learn in a more engaging way, and soon, blockchain technology will change how identities are checked and given out. These trends are encouraging, but they also raise questions about fairness, cost, and how teachers are trained. There are problems that need to be fixed, and people need to work together to find them. This is how ICT can be used most effectively in higher education in the 21st century. To make it through this rough terrain, you need to promise to take care of the issues that have been brought up. Information and communication technologies (ICT) have changed the way colleges and universities do things, but they still want to give students the best, most available, and fair education they can. They can be sure that all of their kids get a full, interesting, and better digital education this way. Through this, students learn how to do well in a world that is becoming more and more digital.

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