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ROLE & IMPACT OF ITC IN IMPROVING THE QUALITY HIGHER EDUCATION IN INDIA

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Abstract

Because of advancements in information and communication technology (ICT), higher education in India has accelerated. The ICT is the primary driver behind the efficient delivery of value education in higher education. ICT advancements have been taken into account in higher education frameworks around the world for the past twenty years. In this cutting-edge worldwide culture, the demand for smart and skilled workforce is growing steadily. Information and communication technology (ICT) is currently changing how higher education is organized in all nations. The study anticipates that India would pick the viability of ICT in sustaining the system of high level training structure in this nation. Accessibility, use, information, and cost are the four aspects that have been adequately identified from various supplementary sources. The exploration is seeking to analyze the impact of ICT by looking into these four elements. The models from various colleges and schools have been collected using the accommodation testing technique. to put the theory to the test and determine the result Different relapse analysis and exploratory variable analysis have been used. The study's findings demonstrate that one of the factors most influencing ICT feasibility is cost.

Keywords: Information and Communication Technology, Higher Education, India, Issues, Challenges.

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1. INTRODUCTION

With the use of information and communication technologies (ICT), we now live in a different world, sometimes referred to as a small town. Access to knowledge quickly and easily has given us the chance to develop. It offers advice in essentially every sector, including education. But education, which is itself referred to as a cycle of communication, has yet to catch up with the highest possible and ideal level of information and communication advancements. In particular, higher education, where the importance of representation and top-to-bottom idea creation cannot be overstated. In essence, this exploration essay looks at the problems, difficulties, and solutions for the high level advancement of ICT for educational repercussions at a higher level.

ICT refers to a broad phrase that unifies all electronic devices and inventions as a way to quickly gather, process, trade, and transfer information to others. It is feasible to study the integration of ICT, especially the web, into the educational framework as a potential catalyst for this sector's transition to 21st-century transformations. A cycle of legal, reasonable, and efficient sanctioning and organization of ICT in education can be expected to lift students' motivation to acquire knowledge and skills as lifelong learning and to enable both teachers and students to adopt a more effective approach to teaching and learning. ICT progress has generally altered corporate, administrative, and educational practices, as well as all other spheres of human endeavor. In agrarian countries like India, where education is still seen as a crucial foundation for social, financial, and political mobility, desire for education has reached its peak. For those who want to pursue an education, India is continually faced with a variety of obstacles, including legal, financial, semantic, and practical ones. In any event, it is believed that ICT can alter the nation's educational landscape.

The revolutionary potential of ICT in higher education in India has helped to increase the need for higher education in the nation through part-time and distance-learning programs. It frequently serves as a tool to overcome obstacles posed by time and distance in addition to financial constraints, a lack of instructors, and poor educational quality. According to Mooij (2007), distinct ICT-based education can be expected to provide more significant unwavering quality, legitimacy, and competency of information assortment as well as more significant ease of examination, assessment, and translation at any educational degree. ICT has an increasing role in education even if the world is moving quickly toward modern media. The way that knowledge is disseminated today has evolved, as has the way that teachers interact and communicate with their students. Additionally, it can foster student unity and provide organizational structures that rise above limitations.

The Certificate, Graduation, Post-Graduation, Doctoral, Post-Doctoral, and Cooperation educational projects are included in the Higher Education Framework in India and are offered to candidates to select under schools, organizations, colleges, and examination focuses in order to enhance their insight for practical ramifications. In India, a huge number of educational foundations owned by the government or with confidential information have been established. The main objective of educational institutions is to effectively disseminate information through the proper use of its resources, which include lecturers, classrooms, libraries, and research centers. Each program has clear outcomes, but the most well-known outcome is that it prepares the participants for further exams or professional skills.

2. LITERATURE REVIEW

Pegu (2014) examined the role of ICT in higher education in India in his review, "Information and Communication Technology in Higher Education in India: Challenges and Amazing open doors." The evaluation found regrettable entry of ICT programs in higher education, and due to lingual diversity, it is necessary to create content in local/provincial dialects. Additionally, there are a lot of opportunities because these initiatives may successfully achieve the desired learning outcomes.

Chandha (2015) presented her viewpoint on mechanical learning gadgets for learning in her review titled "ICT and Present Homeroom Situation". In order to provide a favorable methodology towards the effective execution of ICTs, she illustrated several ways of integrating ICTs to the level of homeroom instruction and proposed workable plans to do so.

Deol (2015) looked into the "Viability of CAI Projects on the Accomplishment in Educating of Social Examinations" in order to determine the effectiveness of PC Assisted Guidance (CAI) programs in regards to the success in the teaching of social investigations. He used 50 students from the ninth grade at Sant Sundar Singh Public Higher in the Punjabi area of Ludhiana as an example. As a final demonstration, he administered the Raven-created Standard Moderate Frameworks Test to the understudies whose results were below average. He then conducted his investigation after randomly selecting 14 students from each of the control and exploratory groups. He discovered that the exploratory group's accomplishments were higher as compared to the benchmark group after the CAI program was administered to the trial lot. This shows that ICT programs may have aided in improving subject comprehension.

Kaur (2015) found that the transition to study halls with technology implants necessitates a change in educator preparation in her review titled "ICT Culture in Educator Education". She suggested various types of contributions to educator preparation, such as information on fundamental hard drive skills, understanding framework programming, using media, an introduction to open source programming, and social, legal, moral, and medical problems, among other things, that are worth executing in educator preparation programs. Her goal was to make understudy instructors aware of ICTs and ensure their similarity to creative advancements.

In her assessment titled "Mix of ICT in Educator Education" published in 2015, Sandhu focused specifically on the problems and worries related to integrating ICT into programs for educator education. Making educators comfortable with creative innovations is one of the key concerns to take into account, she said, as their comfort level would help with integrating ICTs into the homeroom teaching. It is necessary to alter educator education in order to prepare teachers for changing circumstances.

In their review titled "ICT in Instructing Growing experience for Higher Education: Challenges and Amazing open doors" [9], Girish and Sureshkumar (2017) focused on the difficulties and opportunities associated with implementing ICT in the homeroom for teaching and growing experience. Additionally, they concentrated on the factors that needed to be altered completely in order to fully realize ICT programs' potential for improved teaching and learning. They identified a number of issues, including high costs, a lack of the core support needed for the intricate operation of ICT-enabled learning tools, and the unfulfillment of basic requirements like electric inventory, among others. In the end, ICT implementation has open doors since the learning outcomes made possible with their help have significantly improved.

3. ICT IN HIGHER EDUCATION

Throughout the 1990s, a variety of factors combined to force institutions of higher learning to look into the expanding opportunities that information and communication technology (ICT) presented in terms of both improving teaching methods and concurrently changing how chairs and academics drew in with many student partners. As we enter the twenty-first century, a variety of factors are significant areas of strength for implementing ICTs in education, and current trends suggest we will soon witness significant shifts in how education is organized and delivered using ICT. Furthermore, given how quickly new developments develop and alter, higher education frameworks ought to keep pace with improvements in knowledge and skills. Colleges must ensure that their students have the necessary knowledge, skills, and capacities to compete successfully in today's unquestionably global and competitive market."The ICT strategy in higher education targets preparing young people to creatively participate in the foundation, feeding, and development of an information society prompting all-around financial improvement of the nation and global intensity ICT is used for organizational and executive objectives in addition to for the delivery of presentations and materials. Clearly, the use of ICT has benefited regulatory capacities such as understudy enrollment, grades, course schedules, and in any case, staffing assessment. Higher education must incorporate ICT, and the emphasis will be on using it to strengthen the foundation for open and distance learning. The specific role of ICT in improving research skills should be acknowledged in institution- and region-wide higher education ICT strategy and planning, which should also contain a suitable foundation backed by limit building. Through institutional collaboration, computerized libraries, access to online data sets, organization, and other services can be improved to ensure the best use of ICT skills and resources.

ICT can play important roles in higher education, for instance.

- Increasing the local college community's access to cycles for developing existing arrangements, regulations, and techniques.
- Relationship between college executives and organizations that use facades and interior spaces
- Increasing responsibility and openness in the collection, use, and administration of money and money-related resources.
- Watching how various duties, including teaching and research, are carried out
    - Improving various College procedures

Challenges and Issues for ICT in Higher Education

➔ Challenges before the Education System in India Concerns of reach and access to education continue to attract widespread attention of all segments of society.

➔ Following sustained initiatives spread over many decades, the country can today boast of perhaps one of the largest ever Highering systems.

➔ With increased throughput, and ever increasing numbers of students aspiring for higher education, concerns of equity in education and issues of quality have also begun to attract attention.

➔ The challenge of developing alternate modes of education, continuing!

➔ Education, teacher capacity building, information systems for efficient management of the Higher system are being addressed.

➔ With Information and Communication technologies becoming more accessible, reliable and mature, the prospect of leveraging ICT for education is becoming

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4. CHALLENGES AND ISSUES FOR ICT IN HIGHER EDUCATION

- Problems with India's Education Framework Concerns over access and admission to education continue to capture the attention of all segments of society.
- As a result of sustained efforts over many years, the country can now boast maybe one of the largest High ring structures ever.
- As throughput has increased and the number of students aspiring to higher education has been continuously rising, concerns about the value of education and other value-related issues have also begun to surface.
- The experiment to develop alternative educational strategies is ongoing!
- Frameworks for effective administration of the Higher framework are being catered to in the areas of education, educator capacity building, and information.
- As information and communication technologies grow, they become more accessible, dependable, and developed,

making it possible to use ICT for education more and more realistic.

5. RESEARCH METHODOLOGY

A framework for gathering and sorting information is provided by an assessment design. The authors used elucidating exploration for this investigation, and a cross-sectional examination arrangement was used. Through a pre-attempted review, the essential data for the assessment has been gathered. The information that will be gathered from doctorate proposals, periodicals, publications, reliable sources, and so forth is discretionary information. Scientists gathered the data for this investigation from several West Bengali schools and colleges. The locations from which the information was taken are the well-known West Bengali cities of Burdwan, Malda, Siliguri, Kolkata, and Medinipur. The areas were picked based on how close various schools and institutions were to them other. The comfort-testing process has been used to determine the responses from various students in schools and universities, as well as from teaching personnel and non-teaching employees. Specialists distributed 450 questionnaires to various respondents, and 386 properly completed surveys were returned to the specialists. Information was gathered from various respondents using a simple, straightforward survey made up of closed-ended questions.

5.1. Hypotheses of the Study

- The accessibility of ICT is significantly influencing its efficacy in the education sector.
- The use of ICT is significantly affecting how well it works in the field of education.
- The effectiveness of ICT in the education sector is significantly impacted by knowledge from ICT.
- The cost of ICT is significantly affecting how well it works in the field of education.

6. ANALYSIS AND RESULT

6.1. Validity & Reliability Analysis

The two types of legitimacy that make up the build legitimacy are linked legitimacy and separate legitimacy. Here, there is a strong co-association coefficient between the different part variables, and a larger percentage of the co-association coefficients are at higher levels. As a result, it demonstrates that the joint legitimacy is present here. Despite the strong co-association coefficients between the parts of a given component, the relationship between one variable and the variable of a different component is just as tenuous. Here, it similarly demonstrates the legitimacy of segregation.

Table 1: Data on overall reliability

Cronbach ‘s Alpha	Number of Items
.982	24

For the most part and individually, a Cronbach alpha more than 0.70 indicates that the consistency scaling is excellent in many circumstances, and from the analysis it is shown that the Cronbach's Alpha result is 0.982. When the respect is greater than 0.70 in a demonstration of hatred, the expert can assume that the Cronbach's Alpha result is sufficient and, if necessary, the examiner can move forward with the additional assessment. Both face validity and content legitimacy have been carried out with the help of the master's ideas.

This evaluation made use of the exploratory component investigation (EFA) feature of SPSS 21. The authenticity test and the model's wellness have been examined by the assessment and model.

Table 2: Test of KMO and Bartlett

Kaiser-Meyer-Olkin Measure of Sampling Adequacy	Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.736
Bartlett's Test of Sphericity	Bartlett's Test of Sphericity	Approx. Chi-Square	3823.548
		Df	324
		Sig.	.000

Here, the four important points excluded from the element assessment, which consists of 23 significant aspects, are availability of ICT, utilization of ICT, information from ICT, and cost of ICT. The most important aspect in the "Accessibility of ICT"-related factor is "Accessibility of overall around furnished Information Technology lab in school/Higher". People in West Bengal who are involved in higher education are also impacted by the availability of fast internet for individual devices and IT labs via Wi-Fi, online mixed media/video conferencing during lectures in the study hall (Shrewd Homeroom), the availability of an advanced library in IT Labs, and the availability of an IT Lab for round-the-clock access inside the campus or outside through PDA applications. The most influential factor in the "Utilization of ICT"-related factor is "Use of latest advancement of ICT in school/college," followed by "Use of sight and sound device instead of Chalk and Board," "Use of web for tackling tasks and exercises notwithstanding digital books/e-diaries," "Use of Wi-Fi in college/universities to get to information through PDAs, tablets, and so on," and "Use of web for Use of ICT for different participation recording frameworks, use of videoconferencing for live class addresses for students who can't attend, use of videoconferencing for monitoring student and instructor activity during class, etc. The most important variable in the "Information from ICT" related factor is "ICT in higher education framework gives information to work various gadgets," and the most important variable in the "Cost of ICT" related factor is "IT Lab services to the understudies bears ostensible charges as a part of educational expenses."

Relapse examination is currently being used to identify which of these factors has the biggest impact on how well ICT is used in higher education.

The four components that stand out from the component examination are cost, availability of ICT, use of ICT, and information from ICT. In this case, the viability of ICT in higher education was used as a reliant variable, while the additional four components were used as free variables.

Table 3: Model Summary

Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**	**Durbin-Watson**
1	0.640	0.451	0.456	0.7836462	2.671

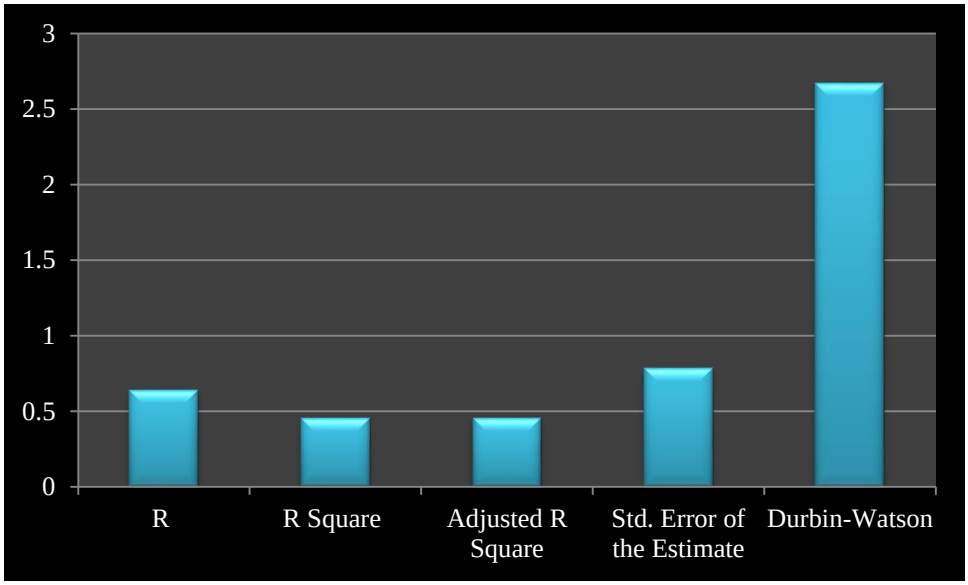

Figure 1: Model Summary

Table 4: ANOVAa

	Model	**Sum of Square**	**df**	**Mean Square**	**F**	**Sig.**
1	Regression	324.364	3	42.258	58.642	0.000
	Residual	382.408	272	0.674		
	Total	403.893	274			

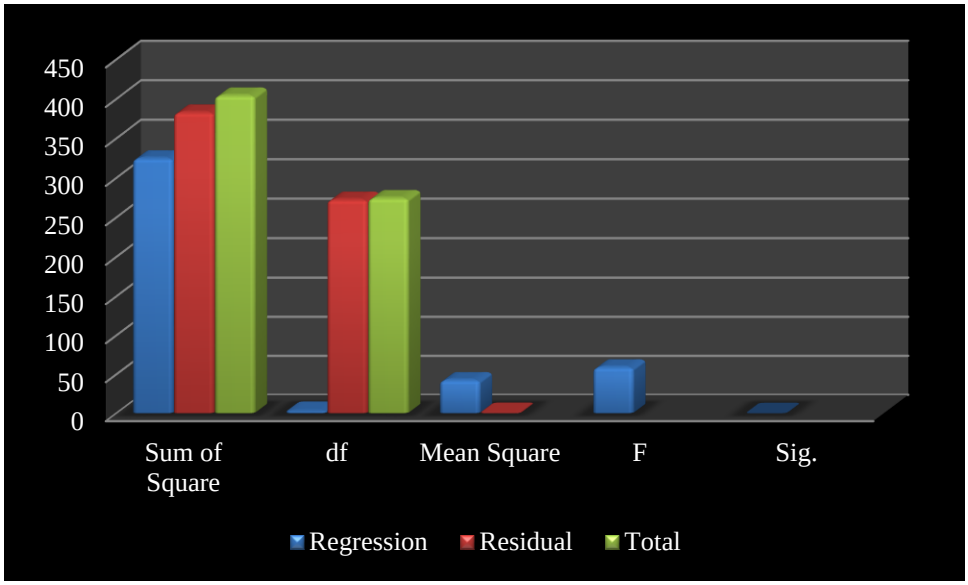

Figure 2: ANOVAa

Table 5: Coefficient

	Model B	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Co linearity Statistics	
		Std. Error	Beta				Tolerance	VIF
1	(constant)	1.445	0.144		5.098	0.000		
	Accessibility of ICT	0.282	0.036	0.272	3.234	0.000	0.678	2.356
	Usage of ICT	0.176	0.045	0.335	3.700	0.000	0.584	2.348
	Knowledge from ICT	0.062	0.042	0.056	2.320	0.000	0.625	2.248
	Cost of ICT	.523	0.053	0.322	8.703	0.000	0.753	2.250

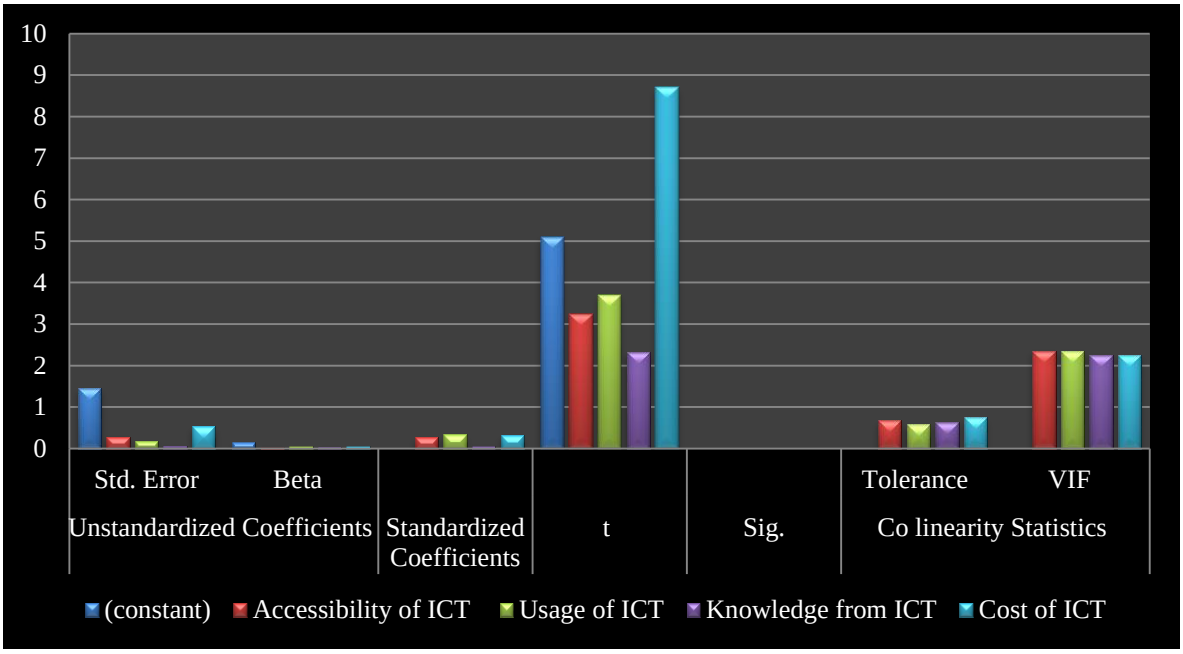

Figure 3: Coefficient

The Change Expansion Element (VIF), which has been used to check for multi-collinearity, should be below 3 for a pleasant run. Here, all VIF considerations are within acceptable bounds, and it is assumed that the variables are free of multi-collinearity.

The reliability of ICT in high level training is the characteristic that is highlighted by the Connection coefficient (R), which for Model 1 is equal to 0.750. The R square, which is 0.562 or 56.2%, is crucial. Additionally, the centrality level in this case offers a 0.000 centrality level, which denotes that it is quite satisfactory.

The cost of ICT component has the highest unstandardized B assessment of 0.412, according to the coefficient table, and the highest essential t value of 9.802, according to the experts. Therefore, the cost of ICT has the greatest influence on how well it is used in higher education.

Utilization of ICT, with a B evaluation of 0.267 and a t assessment of 4.800, will be the second most raised topic after that. With an unstandardized B value of 0.193, openness of ICT ranks third, and

information from ICT isn't too far behind. It is also clear from the results that all of the free factors—including availability, use, and cost of ICT—are measurably important and that none of them is below 0.01, indicating that they are all genuinely critical at a 1% importance level. But it is crucial, in order for the theories to make sense, that in each case, flawed hypotheses have been rejected and replacement theories have been accepted.

7. CONCLUSION

Any nation must prioritize higher education because it encourages civic engagement and the majority of the workforce that supports the nation. Frameworks for higher education are evolving swiftly in the future. It is important to ensure both quantity and quality in the educational system, which includes innovative teaching methods and technological advancements. Each and every field, including education, is using ICT. However, because of the problems mentioned in the essay, the use of ICT in education is almost delayed. The increased use of information and communication technologies (ICTs) has changed how higher education is taught and advanced at all levels, leading to increases in quality. With the integration of ICT in the framework of higher education, there are a wide range of potential results. ICT in teaching can support a few systems related to teaching and learning through the transmission of information and the assistance of information, as will generally be understood. ICT makes teaching and learning experiences less difficult due to their expansive and exact nature, and as a result, primary capacities can be offered to take additional advantage of something very similar. In this way, it should be considered that the usage of inventive mechanical preparation techniques is generally linked to the adjustment of the learning results. The educators and chiefs frequently present a simple and proper condition in the higher, foundations, and schools to increase the utilization of ICT.

ICT also focuses on changing the role of teachers during high level training, where, in addition to study hall teaching, different capacities and commitments of the educators would likely lead them to go as virtual assistants for students utilizing electronic media. Using ICT, learning experiences for students will be reinvented in a way that will also inspire them to reason creatively and unrestrictedly. The students can build fulfilling careers and lifestyles in a world that is undeniably engaged. Rapid improvements in technology are demonstrating that ICT employment in the future will substantially aid in preparing. If necessary, it is evident that ICT was used in the preparation. It may only be thought of that the usage of ICT during high level training structures may be a significant accomplishment factor for improvement, teaching, and changing learning structures that can inspire the teachers, directors, and students.

8. FUTURE SCOPE

• The capability of cutting-edge information and correspondence advancements should be used with the ultimate goal of extending the scope of fundamental counsel toward excluded and oppressed social events; and altering study hall instruction.

• To replace restrictive, pricey, and socially awkward academic designs with clever movement frameworks that are more expansive, more adaptable, and generally acceptable with long-term constancy in quality.

• Extra significant organizations are to be delivered through a technique that incorporates both the traditional preparation structure and every possible option presented by the non-formal division in order to make high level training organizations accessible to all that combines poor people, unaware adults, and

youths outside the educational framework. Making the higher guidance structure free from various types of exceptional cases and isolation is a compelling argument.

These are the methods for creating a structure that is actually informative and can be used to achieve financial, modest, and all-around contentment. Through such a system, each person will be given access to enhanced and practically endless learning.

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