A Study on Creativity, Innovation, and Knowledge

Onkar Bagaria[1], Gautam Kumar[2], Meenakshi Sharma[3], & Ravinder Saini[4]

[1] Department of Management Studies, Vivekananda Global University, Jaipur

[2] Department of Education, Teerthanker Mahaveer University, Moradabad, Uttar Pradesh, India

[3] School of Education, Sanskriti University, Mathura, Uttar Pradesh, India

[4] Department of Education, SGT University, Gurugram, Haryana, India

Correspondence: Onkar Bagaria, Department of Management Studies, Vivekananda Global University, Jaipur, India. E-mail: bagaria.onkar@vgu.ac.in

Received: February 14, 2022 Accepted: March 22, 2022 Online Published: April 7, 2022

doi:10.5430/wjel.v12n3p55 URL: https://doi.org/10.5430/wjel.v12n3p55

Abstract

Creativity or innovation address the process of developing and applying new information. As a consequence, they are vital to Organizational Learning. However, as organizational learning is a new career, innovation or creativity must be addressed in this new setting. This research starts by proposing a framework inside which these difficulties may be examined. It then continues on to look at just how human creativity is inhibited in numerous ways, particularly deep-seated views of the world. Finally, this research evaluated two devices that promote knowledge management or creativity: discussion in the human domain as well as groupware in the technical area. The authors of this research investigate the notions of creativity, innovation, or knowledge, but also their responsibilities. Innovation and uniqueness are required in all academic areas or educational activities, not simply the arts. People can think critically, tackle complicated problems, but also come up with innovative solutions if they have creativity. Creativity allows people to think critically, tackle complicated problems, and come up with unique solutions. People are robust and adaptable, whether they're creative, see things in new ways, or are prepared to learn and understand as they go. This study will assist people in broadening their understanding of creativity and innovation.

Keywords: creativity, generation, innovation, knowledge, management

1. Introduction

If knowledge management is to have any influence on how we conduct business, radical changes in how employees apply knowledge should be made. It has to be about developing new information, bringing it to use, or, as Peter Drucker phrased it, "making it productive." To put it another way, creative thinking must be emphasized in knowledge management.

1.1 Knowledge or Information

It is critical to properly define or agree on the terms people use to have a meaningful dialogue about knowledge or creativity. The same words are used by various persons with slightly different meanings. Many English terms are used haphazardly and ambiguously in daily situations. If we don't think about how we'll use them, we'll end up hindering rather than enhancing communication. Choosing our terminology also helps in the development of a conceptual framework within which we may better explore the difficulties we confront. Let's start by distinguishing between facts, knowledge, information, or wisdom since these differences are often muddled or misunderstood. Although knowledge is sometimes seen as a more complex kind of data, this distinction isn't really useful.

A more helpful definition of knowledge is that it is concerned with knowing how and why things are the way they are. The metaphor of a cake is a simple non-business one. For most purposes, an investigation of its chemical constituents is meaningless data; you might not be able to know it was a cake. An ingredients list is more important information. The cake could certainly be prepared by an experienced cook now that the information has been understood in context. The recipe, on either side, would be written reports, knowledge, in that it directs you on how to create the cake. An incompetent cook, on the other hand, may not have been able to prepare a good cake even with the recipe. A chef with the right information, experience, and competency knowledge that is difficult to imagine down, tacit information, on the other hand, would almost undoubtedly construct an outstanding cake from the recipe.

Lastly, wisdom requires determining which cake to prepare. It's all about making smart judgments (R. Srivastava, R. P. Mishra, V. Kumar, H. K. Shukla, N. Goyal, and C. Singh 2020, M. T. Jagtap, R. C. Tripathi, and J. D. Kumar 2020, S. Shukla, A. K. Agarwal, and A. Lakhmani 2016).

It's crucial to remember that for knowledge to be useful, people will demand informations. Significant how to prepare a cake isn't enough; you also need to know what goes into it. To make an informed selection, people will also need to know what the cake's target audience loves and dislikes. As a result, knowing something is never enough. Individuals will need knowledge, skill, and judgment, as well as the ability to do the wrong thing well. Understanding why individuals do the things they do is also important. Assume you're missing one of the cake's most crucial components. An expert chef may be able to make a substitute if they understand why a certain item was included in the recipe. Knowing why is often more essential than knowing how since it helps you to be more creative and re-create and gain new knowledge by falling back on principles (J. Rai, R. C. Tripathi, and N. Gulati 2020, P. Yadav, V. Nageshwar, and J. Prabhu 2019, A. Choube, S. P. Bahal, A. Srivastava, and M. Sharma 2014).

1.2 Mindset or Competence

It is inadequate to have explicit knowledge, knowledge, experience, or expertise. A competent individual who puts information into practice must possess three critical characteristics: knowledge, competence, and, most significantly, the appropriate motivation or attitude. Even if you provide immaculate information to the world's most knowledgeable or capable person, they may still be unable to produce anything valuable with it. To put it another way, their viewpoint is really important. Michael Schrage went so far as to state in a new conversation that he felt "Knowledge Management is a crap problem" since "most individuals in most businesses cannot act just on the knowledge they possess".

1.3 Management of Information

Let's take a look at a few of the different definitions of performance evaluation. According with definition, the set of rules that regulate the production, dissemination, and application of knowledge to meet corporate goals. However, some contend that this definition is insufficient as it confines organizational effectiveness to a set of activities. In actuality, information management is a wide notion that applies to the complete business. They enjoy what is perceived to be a more realistic approach. According to an original meaning by Gartner Group, "Organizational Learning" is a "starting to emerge" understanding of corporate planning as well as operational principles, procedures, organizational, implementations, or inventions that help educated professionals significantly utilize their creative thinking while being ready to enact business value. "Knowledge Management is a novel mix of company effectiveness or operational concepts, processes, organizational structures, applications, but also innovations that enables highly educated individuals to use their creative thinking or ability to provide company value drastically." Despite its length, Human believes it focuses attention and duties on the knowledge-based economy in particular, and the holistic component of Intellectual Capital (A. Ahmad 2015, S. A. Chacko and V. Nageshwar 2017, S. Kaur and N. V. Muninarayanappa 2017).

Finally, many persons argue that the name knowledge management is an oxymoron, because how can knowledge be "managed?" You absolutely can control certain areas of knowledge. In the same method as you truly can handle data, one may manage important information recorded on paper or in electronic databases. However, the term management is unsuitable when it comes to tacit knowledge, and information held in people's minds. This is extremely valuable information. Organizational Learning is more about fostering than managing in the involves the activation in this circumstance. It has a more organic than mechanical feel to it.

1.4 The Manager's Role in Combining Ideas, Knowledge, or Innovation:

Managers must coordinate the relationship between both the ideation or invention processes in just this dynamic approach to enabling the deployment of long-term artistic endeavors in the firm. With the advancement of knowledge, these primary processes need delicate coupling and decoupling operations. The tacit or explicit knowledge is required to bring forth the issue or questions during the intention phase of ideation. Various frames of reference feed ideas developed during the spark phase. The concept itself conveys both explicit and implicit information. The ideation process requires an environment in which tacit and formal information from many frames of reference circulates freely and is constantly evolving, colliding, and recombining. The fundamental issue for knowledge management, in this case, is to maintain a dynamic interaction between two disparate processes: ideation or creativity (A. Thomas, K. Chithra, and V. Nageshwar2017).

On the one side, ideation processes are frequently informal, simply diverse, and sometimes chaotic, implying that traditional techniques of control, including such legal incentive systems, are mostly meaningless. Classic innovation

procedures, on the other hand, that are built on project teams and hence mainly directed by the hierarchy, concentrate on the convergence of value creation and actualization. The majority of these procedures are formal, sequential, and linear. To maintain consistency, the dynamic of these innovative powerhouses necessitates that both processes be continually mutually enhanced. This is mostly the responsibility of management, who are responsible for putting in place different socio-cognitive transversal strategies and procedures to harness the idea creation dynamic but also turn it into new initiatives. Encourage boundary spanners or knowledge brokers, develop technological cognitive platforms, or promote but also support communities are just a few of the many alternatives available. To cope with coordination challenges in innovation activities, managers frequently have to describe the relationships between creative people or collectives, formalized project teams, as well as the hierarchy, looking there at active units of ideation. Researchers propose that another form of the active unit be considered to combine the concurrent ideation processes, community awareness (S. G. Lal 2019).

1.5 Innovation and Creativity

Therefore, what then is the difference between creativity or innovation in this context? There are a few distinct definitions. They are simply seen as part of the process of creating and transferring knowledge into economic value. This is a fully reasonable description, however it is not especially useful for discussing the issue area, much as the failing to distinguish between knowledge and information. A more practical approach would be to think of creativity as that of the process of developing ideas, but also invention as the process of sifting, refining, or, most crucially, translating those ideas into action. Deductive reasoning is at the core of creativity. Divergent thinking is important to innovation. The process of developing new ideas is defined as creativity, whereas the process of turning those information into practice is defined as innovation. It's not enough to be inventive and come up with novel ideas. People require creativity, which is bringing new and existing ideas into action. This demands the utilization of existing information as well as the generation of new, specific knowledge. The food of innovation creates new ideas as well. Being inventive is considerably harder than being creative (M. Chhabra 2019).

1.5.1 The Origins of Ideas

It's only "something" when a concept is unfulfilled, unconfirmed, or unproven. It might show up in a number of subtle ways. For example, "Let's go to Mars" may be an unmet dream. Consider building a Mars spaceship, which may or may not be a completed product. For examples, 'let’s put on flights to Mars,' may have been an unmet promise. It may be a stream of particles emitted by the sun, or it might be a notion about the nature of things that has yet to be validated. "The solar wind may fuel the ship," for example, is a fresh, unconfirmed notion based on new knowledge concerning a natural, social, or commercial occurrence. The implementation of a concept may be inspired by a vision. Let's start by discovering and producing new data. For example, even by end of the decade, let's place a humans on the moon. It could also be defined as the knowledge: people now have fresh information. What can people do with it to come up with new goods or services? For example, humans understand how the atom functions. Could this data be used to construct a nuclear-powered energy production facility? (M. A. Husain, I. Mohammad, V. Nageshwar, and K. M. K. Sridhar 2019).

1.5.2 Creativity and Innovation Roadblocks

People are born with a desire to create, and this desire is a powerful motivator. If this is the case, why don't people see more innovation in every aspect of life? A lot of it has to do with how we think. "The fundamental aim in science of this is not to obtain new facts as it is to establish new strategies of reasoning about them," Sir William Bragg is quoted as saying. In my opinion, the same can be stated for business but also our everyday job life. Most of the time, folks wouldn't need a lot of interesting knowledge or ideas; instead, people need to reconsider the information or knowledge they currently have. However, one of the main reasons we don't succeed is because our creativity is stifled, thus creativity won't blossom until these roadblocks are gone (N. Rao, M. Hemalatha, and V. Nageshwar 2019).

As a result, it's critical to comprehend how new ideas emerge. Fresh concepts and ideas emerge as a result of a thought game. I'm imagining what might or should be. It's a very enjoyable game. Words, ideas, and metaphors are all used in a lighthearted manner. Experimenting with "what if" situations. In his article jamming the Art as well as the Discipline of Business Creativity, John Kao offers the notion of creative 'jamming' based on a musical metaphor. "To pass a subject, an inquiry, a whim, a thought around, split it apart, put it all back together, turn it over, run it backward, and fly with this as far as possible, out of sight, never to be seen again. Oh, sure, it's here, altered, new, the essence, is unlike any you've ever seen before, " It explains how to jam. It's really about having a great time in this scenario. It's about not recognising limitations or constraints and instead focused on the delight of discovery. In a sport, nothing at all is taken as a given. Nothing is unchangeable or unalterable. It's all about having a good time

while you play. Furthermore, playing by you is never fun. Playing is a team sport that demands teamwork, coordination, and connection (S. Yadav and I. Mohammad 2019, M. S. Solanki, L. Goswami, K. P. Sharma, and R. Sikka 2019).

Developing new ideas when people think about being creative, we generally think of brainstorming sessions or something similar, and while these meetings are vital, we lose out on a lot of creative potentials if we simply look at it that way. People, or at least that's how people perceive it, get to play all of the time. Every encounter humans have in our regular lives should be about having fun, learning something new, and being creative. Our lives, in my perspective, are played out on the playground. Humans get to play when we interact with people in the industry. If we take the effort to seek them, office meetings, which are typically perceived as an administrative waste of effort, is perhaps one of the best prospects for play - based learning. Swings or traffic circles on the playgrounds are work together on projects with similar aims, communicating, coordinating, and collaborating. To put it differently, when we connect with folks, they have the potential to learn, influence, or alter things. People has to be inventive every moment of their existence. Instead of being normal, every choice, conversation, and action should be different and innovative.

1.6 Specialized Creativity

The belief that creativity is only essential for expert occupations such research or development (R&D) is among the most major obstacles to innovation both at the individual or community levels. Within a company, innovation is important at all levels but in all areas. Each functional specialization, each group, each management, consequently each person is liable for their uniqueness. Creativity isn't confined to new objects, new services, as well as new and improved processes in the greater scheme of things. This is every bit of a human creation if I may better plan my day or create a report inside a distinctive or more efficient manner.

1.7 Limiting Concepts

At whatever level, the paradigm is the most major hindrance to innovation. The word 'paradigm' is often misunderstood, abused, or misapplied. A paradigm is a system of ideas that govern how people think, perceive, communicate, and experience the world. It's also known as worldview and mindset. The most crucial thing to bear in mind with paradigms is that they function on a deeper level. People are oblivious of our paradigms. It's akin to believing the world is red while we're using rose-tinted correction glasses. Paradigms include theories, concepts, principles, ideals, but also doctrines. These are a rigid tacit structure of ideas that shape not only our cognition but also our overall world. When someone states," People need a new approach for this," they are abusing the phrase. They're just stating that "a new approach or way of looking at things" is necessary. By definition, people are unconscious of our personal or organizational paradigms. Both positive and harmful components of paradigms exist. They operate as a protection mechanism again for mind against new, maybe harmful thoughts. On the other hand, they may be more detrimental if they prevent the acceptance of new ideas. The trouble is that we do something (make a decision) and then behave in a specific way for no explicable reason. Reasoning that our rational brain does not agree with. But at the other hand, our conscious mind rationalizes our actions. And so we keep on, utterly oblivious (or maybe only vaguely aware) of how we have gone wrong. Some of us may be cognizant that we engage in this activity in our personal, emotional, and interpersonal interactions. Humans do it, however, in our professional life as well. As a result, paradigms choke our originality. They confine our ideas and behaviors in ways we're not even aware of.

1.7.1 Taking Down Barriers to Creativity

People looked at some of the challenges to creativity and innovation, but not all of them. However, how will we get through them? There is a range of possible reactions, some of which are stated in the previous descriptions and others that aren't. People have time but also space to go deeply into them, yet human thinking Knowledge Management or the nurturing of innovation or creativity have two elements. The human aspect is undoubtedly one component, while technology is the other. Many say that, while technology is a wonderful tool, it does not influence any of this. In this scenario, people disagree. The mix of technology as well as the human experience provides a synergy that enables us to feel and behave in new ways. It's all too easy to reject the hoopla about just the Internet or Global Internet technologies, yet humans, along with many others, believe these are transformative technologies. From the viewpoint of history, they believe the fanfare will be seen as tame. The human mind but also technology are co-evolving at the dizzying pace. As a result, people seek to touch on both 'tools,' one from the personal domain or the other in the technological realm discussion or groupware.

1.7.2 Technology for Groups

John Kao outlines why creativity is so important now in his book Paper Jamming. In his first item, he declares, "This is the period of invention." Information systems wants us to go there next." This may appear to be an odd way of phrasing things, but I believe it suggests that he, too, thinks that technology growth but also human evolution are tightly interwoven. He goes on to add that "Information Technology is the means for expressing, organizing, and implementing knowledge." "When people integrate IT with creativity or expertise, they acquire incredible combined capacities to display information coupled with technology to promote cooperation across diverse sectors and views," he says. Human is referencing to the tool known as 'collaboration tools.' In a white document called simply "Groupware," Lotus describes groupware as "technology that enables students to work together via communication, collaboration, or coordination". Groupware is transforming the way we work as a result of the emergence of Net technologies (Internet, intranet, or Web technologies). Groupware is a technology that connects people across time and space, and when combined with new ways of thinking, it's changing the way people work. People think Lotus Notes or, more lately, Lotus Domains, groupware supporting technologies for private networks or even the Web, are amongst the best-kept surprises in the world. Their influence is huge, although many organizations have yet to identify or comprehend it. Lotus has recently revealed intentions to adapt this system into an Information Management system, due to the fact that the ideas of groupware but also Knowledge Management are equivalent. Let me simply present you three instances to give you a sense of its knowledge management or innovation skills.

1.7.3 Team Room

Many firms struggle to bring individuals together over time and place to communicate, exchange ideas, even co-create new goods or services. Knowledge management solutions like Lotus Team Room encourage group interactions by concentrating collaboration on attaining specific objectives or addressing difficulties beyond the core interactivity of discussion boards. The Lotus Development Group Rooms is a next generation Internet communication platform that gives structure or direction to help in the establishment of an unified aim. The Group Room also works as a repository for common materials such as business plans, reports, process instructions, or meeting minutes. It can also be used for ideation, problem-solving, or informal talks. When applied as a tool for planning, it supports a team in concentrating on essential problems before a meeting. It has also been used to keep a record of action items, monitor problems, and organize joint effort on reports and presentation (I. N. Dubina, E. G. Carayannis, and D. F. J. Campbell 2012).

1.7.4 Learning Environment

Lotus Type Of system is a Lotus Developer Internet collaborative learning solution. It's used to build, produce, or distribute active courses across a network, as well as augment classroom instruction. The Education Space course materials comprise a school schedule with connections to readings, and also homework or exams. Learning is more swift and comprehensive when there is interaction between a student and the teacher, including between learners themselves. Learning Space fosters engagement by permitting interactions among student and with the teacher. Students work in groups or participate in both governmental and non - governmental conversations.

1.7.5 Personal Development Planning (PDP) for Knowledge

Knowledge Associates' Personal Development Planning (PDP) is a Web/intranet-based system for learning, key skill attainment, and knowledge exchange. People's essential competencies may be identified via PDP, allowing for continual learning and personal growth. Individuals may discuss their present level of performance, as well as the degree they aspire to and their strategies to get there, with their supervisors and coaches for each skill. They may also often reflect on it or add daily events, skill development, or learnings that they think contribute to a higher level of proficiency. When it comes time to evaluate competency, a history of these learnings is available for discussion with their manager and coach. Inside an ideal system, everyone's expertise is exchanged in order to enhance the system's performance (C. Fischer, C. P. Malycha, and E. Schafmann 2019).

2. Literature Review

N. Orloev et al. studied "Knowledge, Innovation, and Creativity" in Symbol of the Industrial society Age. "Creativity. Innovation," as a scientific statement, was launched by the Universities of Ruse in line with comparable programs already in place in the post-industrial age. They would like to give this publication as just a scientific message from delegates of the scholarly institution rather than a programmer manifesto, instead of with a thorough overview of knowledge, creativity, but rather innovation inside the information age in post-industrial society, but also as a chance to share particular workable solutions in the field of dynamic and imaginative university education. Would this symposium provide lessons but also wisdom to everyone members of our academic world to assist Generations in

our students in discovering and rediscovering their destiny as creators via knowledge, creativity, and innovation (P. D. E. Orloev 2012).

Michelle Barton et al. studied Creativity, Knowledge, and Innovation Management. Knowledge has a contradictory connection with creativity and innovation. it is necessary for both, yet it may also be harmful to both (in some situations). That is, information may both give birth to and destroy inventive ideas. This essay looks at how that contradiction is managed on three levels: corporate, group, or personal. Knowledge is the foundation for both core competencies and core rigidities at the institutional level. Team composition or norms may impact how knowledge and expertise are used to either increase or restrict innovation at the group level. Expertise also facilitates intuitive jumps of creativity on an individual basis, but it is also prone to cognitive biases that hinder innovation. This article proposes strategies for counteracting knowledge's negative impacts while maximizing its ability to create and inspire. The greatest protection against knowledge's risks and restraints is to question assumptions at all levels, including one's own. Recognizing the significance and potential of various sources of information is the finest positive contribution to improving creativity at all levels (C. M. Hall and A. M. Williams 2019).

Through multidisciplinary and multisectoral collaboration, Jorge Alves et al. studied Creativity and Innovation. In interdisciplinary and multisectoral contexts, the relationship between creativity, innovation, and new product creation. They argue that the production of a large number of creative ideas aids in the development of new goods. Furthermore, they suggest that idea creation may be particularly effective in collaborative transdisciplinary situations where enterprises and scientific and technology institutions coexist and interact. Our technique employs existing literature to study the process of creativity but also idea development in terms of multisectoral or interdisciplinary collaborative efforts involving enterprises as well as scientific or technology institutions. They then draw on our empirical research to identify settings that favor those processes, as well as some difficulties that impede the realization of interdisciplinary groups' creative potential. To achieve the desired balance, the procedure must be fine-tuned regularly. This entails adding or removing the structure, moving forward or backward in the invention 'funnel,' and eliminating and recovering ideas. To manage creativity and innovation, organizations must be creative and inventive (J. Alves, M. J. Marques, I. Saur, and P. Marques 2007).

Hana Urbancova et al. studied how to get a competitive advantage via innovation but also knowledge. Individuals who hold knowledge act as a tool for the invention of new ideas. It's indeed possible to generate new innovative ideas that may assist firms gain a comparative advantage owing to their imagination, abilities, knowledge, and competences. The purpose of this article is to provide the results of an innovation survey and to highlight knowledge as a critical component in the innovation process. Primary data was collected by a questionnaire survey conducted in Czech organizations as well as analyzed using descriptive statistics, as well as comparison, deduction, induction, or synthesis approaches. One of the article's findings is that organizations value innovation and foster an inventive culture. Information is also highly essential in the design process since it is both an input and an outcome of the process of transformation. To summarize, advancements are or will undoubtedly continue to be tool for businesses to thrive in today's volatile or highly competitive world (H. Urbancova 2013).

Jie Wang et al. studied team creativity and innovation in culturally diverse groups. The direction or intensity of the association among diversity in diversified cultural teams but also team creativity/innovation are investigated in this metanalysis. In culturally diverse teams, we explore the influence of two degrees of diversity and the moderators supplied by the sociotechnical systems paradigm. Deep-level diversity in culturally diversified teams is positively related with team creative ability; but, surface level variation in multi-cultural team is not. Moreover, teamwork creative capacity or surface-level diversity in multi-cultural groups is negatively connected with simple tasks but unimportant for sophisticated occupations. For multiple teams or dependent activities, deep-level diversity in multi-cultural teams but also team creative ability are positively connected, whereas, for no collocated teams or independent tasks, they are unrelated. With current theories and concepts, this metanalysis gives updated empirical results on the link between variety in culturally varied teams and team creative ability. The social or informational factors that underpin this link should be investigated in the future study (J. Wang, G. H. L. Cheng, T. Chen, and K. Leung 2019).

3. Discussion

"Knowledge, Creativity, and Innovation" is a topic with an inexhaustible supply of opportunities and issues. It fosters innovation among academics that have a worthwhile goal or vision for merely a breakthrough. Other occupations and paths lead to the feared logorrhea bog or resigned poverty normalization. The final notion in this composition will be "the reason gave rise to its creator." A person becomes a creator when he or she seeks and discovers his or her mission. May this symposium bring lessons and wisdom to all members of our academic environment to help

Generation Y students uncover and rediscover their cause, as well as take on the role of creator via knowledge, creativity, and innovation?. Any organization's success depends on its ability to innovate and create new ideas. The authors examine the rapidly expanding corpus of research in this field, focusing on the years 2002 to 2013. Humans create a unique, integrated definition that views both entrepreneurship and imagination to be major elements of the same process. They should note out that most creativity research has concentrated on the idea producing stage, while most innovation studies have addressed the concept implementation process as well. In terms of originality and invention, the University of Ruse is an "outstanding academic location," without undervaluing others' efforts or results. The author of the current thesis or proposal might check that judgment personally, as well as with his research group, by delivering a short description of creative and inventive process employed in training.

3.1 Relation between Creativity, Knowledge, and Innovation

The two key activities in the innovation process are creativity or innovation. Creativity is the act of coming up with fresh and beneficial ideas, whereas innovation is the process of turning those ideas into new goods or processes.

Knowledge-based skills and the procedures connected with the acquisition or administration of this resource should be considered in the link between family enterprises' innovation capability, as they impact the ways a firm is organized to exploit knowledge. As a result, there is a strong relationship between innovation or knowledge.

In education, innovation can take the form of a novel pedagogic theory, teaching style, conceptual model, instructional device, learning process, or organizational framework that, when applied, results in a major shift in teaching and learning, leading to improved student outcomes.

The top six technological advances that are causing substantial changes in education are listed below.

- In the field of education, virtual reality (VR) is becoming increasingly popular.
- Artificial Intelligence or Machine Learning are two terms that are often used interchangeably.
- Cloud Computing in the Classroom
- 3D printing is a technology that allows you to create three-dimensional objects.
- Educational Institutions and Social Media
- The Implementation of Biometrics in Schools

4. Conclusion

In the field of project management, innovation or creativity is at the forefront. Humans have such a long way to go in terms of releasing our creative energy, both personally and professionally, since there are several barriers to creativity. The notion of communication is one of the most important instruments for overcoming these barriers. Groupware is growing into an Information Management system, and it is playing an increasingly important role. Today's task is to create successful technology based solutions that assist us creation information productive while also taking into consideration how we think or conduct. This study's authors explore the concepts of creativity, innovation, or knowledge, but also their respective roles. Innovation and creativity are required not just in the arts, but also in all academic subjects and educational activities. People can think critically, tackle complicated problems, and come up with innovative solutions if you have creativity. People with creativity can think critically, handle complex challenges, and come up with unique solutions. People that are creative are able to think critically, solve complex issues, and come up with innovative solutions. Whether they're innovative, see things in new ways, or are willing to learn and comprehend as they go, people are tough and adaptable. This research will help individuals have a better grasp of creativity and innovation.

References

Ahmad, A. et al. (2015). Evaluation of knowledge, attitude and practice about self-medication among rural and urban north Indian population. *International Journal of Pharmaceutical and Clinical Research.*

Alves, J., Marques, M. J., Saur, I., & Marques, P. (2007). Creativity and innovation through multidisciplinary and multisectoral cooperation. *Creativity and Innovation Management, 16*(1), 27-34. https://doi.org/10.1111/j.1467-8691.2007.00417.x

Chacko, S. A., & Nageshwar, V. (2017). A study to find the effectiveness of structured teaching programme on knowledge regarding medico-legal aspects in care of terminally ill patients among staff nurses at selected hospitals, Moradabad. *Indian Journal of Public Health Research and Development, 8*(1). https://doi.org/10.5958/0976-5506.2017.00011.0

Chhabra, M., Gudi, S. K., Rashid, M., Rohit 4, Sharma, P., Sharma, S., & Khan, H. (2019). Assessment of knowledge on risk factors, warning signs, and early treatment approaches of stroke among community adults in North India: A telephone interview survey. *Journal of Neurosciences in Rural Practice, 10*(3), 417-422. https://doi.org/10.1055/s-0039-1697561

Choube, A., Bahal, S. P., Srivastava, A., & Sharma, M. (2014). Knowledge and child care practices regarding childhood diarrhoea- a cross sectional study. *Indian Journal of Community Health.*

Dubina, I. N., Carayannis, E. G., & Campbell, D. F. J. (2012). Creativity economy and a crisis of the economy? Coevolution of knowledge, innovation, and creativity, and of the knowledge economy and knowledge society. *Journal of the Knowledge Economy, 3*(1), 1-24. https://doi.org/10.1007/s13132-011-0042-y

Fischer, C., Malycha, C. P., & Schafmann, E. (2019). The influence of intrinsic motivation and synergistic extrinsic motivators on creativity and innovation. *Frontiers in Psychology, 10*, 137. https://doi.org/10.3389/fpsyg.2019.00137

Hall, C. M., & Williams, A. M. (2019). Knowledge, creativity, and innovation. *Tour. Innov.,* 84-133. https://doi.org/10.4324/9781315162836-3

Husain, M. A., Mohammad, I., Nageshwar, V., & Sridhar, K. M. K. (2019). Does knowledge and attitude is needed regarding euthanasia in clinical course? A narrative review based on an available literature. *Medico-Legal Update, 19*(1). https://doi.org/10.5958/0974-1283.2019.00012.4

Jagtap, M. T., Tripathi, R. C., & Kumar, J. D. (2020). *Depth distortion score estimation in 3-D image retargeting using disparity map.* Retrieved from https://doi.org/10.1109/SMART50582.2020.9337085.

Kaur, S., & Muninarayanappa, N. V. (2017). A study to assess the effectiveness of awareness programme in term of knowledge regarding early symptoms of myocardial infarction among bank employees of selected banks at Moradabad, U.P. *Indian Journal of Public Health Research and Development, 8*(1). https://doi.org/10.5958/0976-5506.2017.00024.9

Lal, S. G. (2019). Knowledge and practice on dietary management among patients with gallbladder diseases. *Medico-Legal Update, 19*(1). https://doi.org/10.5958/0974-1283.2019.00031.8

Orloev, P. D. E. (2012). Knowledge . Creativity . Innovation. *Symbols of the Postindustrial Age, 4,* 3-5.

Rai, J., Tripathi, R. C., & Gulati, N. (2020). *A comparative study of implementing innovation in education sector due to COVID-19.* https://doi.org/10.1109/SMART50582.2020.9337148.

Rao, N., Hemalatha, M., & Nageshwar, V. (2019). Examining preconception care related to knowledge among reproductive age women: A narrative review. *Indian Journal of Public Health Research and Development, 10*(2). https://doi.org/10.5958/0976-5506.2019.00253.5

Shukla, S., Agarwal, A. K., & Lakhmani, A. (2016). *MICROCHIPS: A leading innovation in medicine.*

Solanki, M. S., Goswami, L., Sharma, K. P., & Sikka, R. (2019). *Automatic Detection of Temples in consumer Images using histogram of Gradient.* https://doi.org/10.1109/ICCIKE47802.2019.9004324.

Srivastava, R., Mishra, R. P., Kumar, V., Shukla, H. K., Goyal, N., & Singh, C. (2020). *Android malware detection amid COVID-19.* https://doi.org/10.1109/SMART50582.2020.9337105.

Thomas, A., Chithra, K., & Nageshwar, V. (2017). Effectiveness of video assisted teaching programme on knowledge regarding practice of body mechanics among staff nurses in selected hosptals, Moradabad. *Indian Journal of Public Health Research and Development, 8*(2). https://doi.org/10.5958/0976-5506.2017.00079.1

Urbancova, H. (2013). Competitive advantage achievement through innovation and knowledge. *Journal of Competitiveness, 5*(1), 82-96. https://doi.org/10.7441/joc.2013.01.06

Wang, J., Cheng, G. H. L., Chen, T., & Leung, K. (2019). Team creativity/innovation in culturally diverse teams: A meta-analysis. *Journal of Organizational Behavior, 40*(6), 693-708. https://doi.org/10.1002/job.2362

Yadav, P., Nageshwar, V., & Prabhu, J. (2019). Reproductive and sexual health knowledge and utilization of services among adolescents: A review based on available literature. *Indian Journal of Public Health Research and Development, 10*(10). https://doi.org/10.5958/0976-5506.2019.02817.1

Yadav, S., & Mohammad, I. (2019). Effectiveness of concept mapping on conventional teaching method in terms of knowledge regarding arterial blood gas (Abg) analysis among b.sc. nursing iv year students. *Medico-Legal*

Updat., 19(2). https://doi.org/10.5958/0974-1283.2019.00165.8