

# UNDERSTANDING THE CONCEPT OF DIGITAL LITERACY AND INNOVATIVE WORK BEHAVIOR

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**Abstract:** *In the present circumstances, coronavirus disease (COVID-19), which limits the movement to go to work, has the potential to open up everyone's attention to the use of more technological innovations. Other than that, especially office employees use their abilities to adapt to these changes even though this new norm situation could not have physical touch. The presence of the virus COVID-19 that hinders movement is an issue. One of the difficult problems is acquiring the necessary digital literacy for success in employment. Therefore, this research aims to explore the concept of digital literacy and innovative work behavior in a workplace setting. This study provides a clear understanding of digital literacy, personal innovativeness, and individual innovative work behavior. In addition, the current study involves reviewed research articles that were gathered from Scopus, Science Direct, and Emerald databases. A total of 15 articles have been reviewed from the year 2017 to 2022. Based on the review, this study found that employee digital literacy is on the rise due to the current changes in the modern era. In addition to that, past studies revealed that digital literacy is widely associated with innovative work behavior. This study's findings contribute to the body of literature on digital literacy and assist organizations in understanding the importance of digital literacy on organizational outcomes such as innovative work behavior and organizational performance. The digital literacy program will provide employees with the digital skills required to engage in innovative work behavior. Future studies are recommended to provide empirical evidence on the association between digital literacy and innovative work behavior.*

**Keywords:** *Innovative work behavior, digital literacy, workplace digitalization, and innovative cultures*

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## Introduction

Innovative work behavior is the capacity to initiate, promote, and execute new ideas, goods, or services within a function, a portion of an organization, or the whole company. Furthermore, innovative employees are an important element in maintaining competition in an organization. Thus, innovation behavior will influence an employee to increase the output, performance, and efficiency of his/her organization. Innovative work behaviors are now contagious among employees and have changed their perceptions. This causes the minds of employees to be more advanced in the future. Employees will provide better cooperation with each other. Therefore, the atmosphere between employees will be calmer and calmer if these innovative work behaviors are practiced. The sustainability of any organization in the current competitive environment depends on its ability to innovate. Environmental uncertainty urges organizations to find innovative ways of working. The employee makes an extra (discretionary) effort to develop and implement new ideas, products, procedures, and processes within the organization noted the following dimensions: realizing the opportunities related to the problem (idea exploration), generating ideas to solve the problem), attaining support for these ideas (idea championing), and idea implementation (Yuan and Woodman, 2010). Problems can be solved with an intelligent mind without negative thinking until the problem gets worse.

Digital literacy involves more sophisticated cognitive, emotional, and sociocultural abilities that users require to function well in digital contexts. Technology needs to be used holistically to support employees in producing important work through innovative methods and practices. To successfully complete many tasks, employees need a bit of internet search habits. Such activities will help employees improve their digital literacy by requiring them to evaluate and select web resources. As the importance of digital literacy increases, it is suggested that personal inventiveness is a trait that contributes to positive results in businesses. Digital literacy is growing among employees due to the changes of modern times currently. With digital literacy, workers can carry out their duties easily. Now employees do not have to feel burdened due to advanced technology. Less focus has been found in the literature on the role of literacy in the fast and ever-changing digital design research programs and how employees evolve digital mindsets. Therefore, this study aims to explore the concept of digital literacy and innovative work behavior in a workplace setting and provide a clear understanding of digital literacy, personal innovativeness, and individual innovative work behavior. This is an issue of building a shared literacy of the material design practice, which often divides the stakes between value for practice and value for the design research program (Vink, Imada, and Zink 2008). This is especially the significant complexity and multidisciplinary nature of digital literacy projects.

## Literature Review

### Innovative Work Behavior

The review is concerned with defining the concept of Innovative Work Behavior, identifying its activity stages, and presenting its determinants related to the organizational context, employee skills and aptitudes, and access to resources and training. Innovative work behavior is conceptualized as the behavior that individuals will engage in to improvise their existing organizational processes and generate, mobilize and apply innovative ideas within both internal and external organizational environments. Innovations are largely driven by an individual's

readiness for or attitude toward change, which refers to the cognitive precursor behavior of either resistance to or support for a change effort (Dunham et al., 1989). Last but not least, it is becoming commonplace to encourage the digitalization of current work and organizations. The following table (table 1) described additional definitions for innovative work behavior from 10 articles available from different sources.

**Table 1: Definition of Innovative Work Behaviour**

<b>Innovative Work Behavior</b>	<b>Definition</b>	<b>Source</b>
Innovative Work Behavior	Innovative work behavior is described as the deliberate conception, introduction, and application of new ideas to benefit one's, the groups, or the organization's performance.	Janssen and Van Yperen, (2004)
Innovative Work Behavior	Innovative work behavior can be described as employees' extra-role behaviors that help the organization face new challenges in a complicated environment.	Javed et al. (2017)
Innovative Work Behavior	Innovative work behavior (IWB) refers to all individual activities in an organization towards developing, promoting, and implementing a useful innovation.	West and Farr, (1990)
Innovative	Organizations require qualified professionals with innovative behaviors as a necessary component for organizational performance and survival in the current competitive environment.	Korzilius et al. (2017)
Innovative Work Behaviour	Been recognized as an ambiguous phenomenon.	Schuh et al. (2018)
Innovative Work Behaviour	In the innovation process, employees used their competencies and demonstrated discretionary behavior where they created, promoted, and implemented novel ideas. This, in turn, shaped their innovative work behavior.	Janssen, (2000)
Innovation	A necessary component for organizational performance and survival in the current competitive environment the organizations require qualified professionals with innovative behaviors	Rabia Imran and Khayar Salim Hassan Al-Ansi, (2019)
Innovative Work Behaviour	Highly-developed information systems can promote it in organizations by serving as a platform for evaluating shared ideas and tracking the implementation of such ideas.	Sandstrom and Bjork (2010)
Innovativeness	Gender, education, and organizational tenure were also controlled for, as those variables can be important in explaining innovativeness.	Gui and Argetin, (2011); Helsper and Enyon (2010)

### Digital Literacy

Fostering digitalization of contemporary work and organizations has become a norm (Singh and Hess 2017). Digital literacy, also known as digital competence, familiarity, or digital skills (Bates, 2013), is the capacity to utilize cutting-edge tools to accomplish objectives, including the confident and critical use of digital technology for work, recreation, and communication. It is the capacity to comprehend and use the information offered through computers and the internet in diverse forms and from a broad number of sources. According to Eshet-Alakali (2006), digital literacy consists of a complex set of abilities and is essential to doing business since the usage of digital technology greatly contributes to enhancing workplace performance.

Digital literacy is growing among employees due to the changes of modern times currently. With digital literacy, workers can carry out their duties easily. Now employees do not have to feel burdened due to advanced technology. Based on table 2 below, there are additional definitions for digital literacy from 15 articles available from different sources. While table 3 presents the past studies on digital literacy, its influencing factors, and related outcomes.

**Table 2: Definition of Digital Literacy**

Digital Literacy	Definition	Source
Digital Literacy	Concerned with the knowledge possessed about digital technology, the skills necessary to use it, and the ability to reflect on digital opportunities and challenges.	Gilster, (1997)
Digital Literacy	Highly determined by the process of digitalization, and not just the technology itself.	Laursen and Berglund, (2017)
Digital Literacy	Digital literacy with three intersecting dimensions: technical, cognitive, and social-emotional. Examples of items included in the scale are the ability to learn new technology easily, motivation to learn with information and communication technology, and willingness to use information and communication technology at work.	Martin (2005), Ng (2012)
Digital Literacy	Digital literacy is more than just the ability to use software or devices; it includes more complex cognitive, emotional, and sociological skills that users need to work effectively in digital environments.	Martin & Madigan, (2006)
Digital Literacy	A digitally literate person is one with the skills needed to understand and use information from different digital sources to solve problems related to access and selection of information.	Carlos Enrique George-Reyes, et al. (2021)
Digital Literate	The growing importance of digital transformation increases the importance of the employee attitudes towards embracing new and different working practices.	Tomat and Trkman (2019)

**Table 3: Summary of Literature Search**

No	Author	Year	Study Population	Study Design	Country	Factor	Outcome
1.	Danielle Akemi Jogo et. al.	2021	Childrens (4-5 years old)	Cross-sectional	Brazil	Lack of comprehension during the four-stage of phonological awareness	Gamification affect preschoolers' engagement
2.	Ina Blau, et. al.	2020	Higher education	Cross-sectional	Israel	Digital technologies	Self regulations and learning new technologies
3.	Basharat Javed, et. al.	2019	Employees in the United Kingdom and Canada's information technology and cargo industries	Longitudinal	Pakistan	Inclusive leadership	Innovative work behaviour
4.	Carlos Enrique George-Reyes, et. al.	2021	Education sector such as students	Cross-sectional	Mexico	Computational thinking	Digital literacy
5.	Henny Santoso et. al.	2019	Managerial level telecommunication companies' industry in Indonesia	Cross-sectional	Indonesia	Digital literacy	innovative work behavior
6.	Amila Pilav-Velić, et. al.	2021	Employees in a pharmaceutical company	Cross-sectional	Europe	Digital literacy, personal innovativeness and digital practices or attitude toward digitalized innovation	Individual innovative work behavior
7.	Lyndsey Middleton, Hazel Hall	2021	Three larger public sector organisations in Scotland, Finland and England.	Cross-sectional	United Kingdom	Sharing information and information literacy	Innovative work behavior
8.	Nimitha Aboobaker, Zakkariya K.A.	2020	students in higher education sector	Cross-sectional	India	Digital learning orientation and information technology for educational purposes	Innovative work behaviour
9.	Ai Joo Chan, et. al.	2020	Management-level executives in companies located in Selangor/ Kuala Lumpur.	Cross-sectional	Malaysia	Digital literacies	Employee engagement in digitalised workplace

## Methodology

A literature review is undertaken using an archival technique. This paper includes articles published on online databases such as Science Direct, Scopus, and Emerald Insight, ACM Digital Library, Cambridge University, with the keywords Innovative work behavior, digital literacy, workplace digitalization, and innovative cultures. The selection of articles ranges between 2017 and 2022.

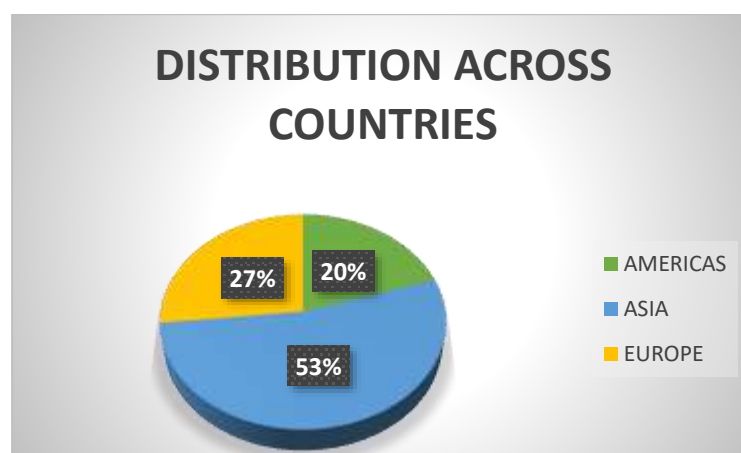
## Result and Discussion

Based on the review of the study of innovative work behavior and digital literacy, 15 articles related to the title have been found. The table below shows the number of articles published from 2017 to 2022. As we can see from the table, most of the studies were conducted within the year 2019-2021, when the evolution of technology is on the rise due to the pressure from the COVID-19 pandemic. Due to the pandemic, most businesses have shifted to virtual transactions, where digital literacy is deemed vital in coping with the rapid technological changes.

**Table 4: Publication by years**

Year	No. of Articles
2017	1
2019	5
2020	4
2021	4
2022	1

In terms of the distribution of publications across different countries, the research on innovative work behavior and digital literacy was carried out in different countries. Based on a review, it can be concluded that the majority of studies on the influence of innovative work behavior and digital literacy were conducted in Asia countries (53%). The remaining are from the Americas (20%) and Europe (27%).



**Diagram 1: Distribution across countries**



## Conclusion

In summary, Innovative Work Behavior and Digital Literacy are closely interrelated. It is essential to organizational performance, and for firms to remain in the present competitive market, they must employ qualified people with inventive behaviors. Experimenting with digital technologies increases confidence in one's competencies. For instance, innovative work behavior and digital literacy affect the way society communicates, socializes, and learns. The findings of this study contribute to a deeper understanding of the contentious impact of digital learning orientation on meaningful outcomes, especially in the 21<sup>st</sup> century. Thus, innovative work behavior and digital literacy are acknowledged as the most crucial components ensuring organizational success. Finally, other efforts and collaboration by the policy makers, organizations, and related parties are also important and need to be emphasized. In other words, efforts should be focused on implementing training on the method and practice of digital devices and technology, hence, improving experiential learning in the workplace. Thus, digital literacy may facilitate the momentum of innovation. This study will add to the potential and knowledge of employees that organizations will gain from a better understanding of the relevance of jobs and technology. Employee perceptions and confidence will also increase when innovative behaviors and digital literacy are applied among other employees.

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