Educational e-Leadership: A Review of Literature

Foroogh Zarei, MA

Department of Educational Studies

Submitted in partial fulfillment

of the requirements for the degree of

Master of Education (MEd)

Faculty of Education, Brock University

St. Catharines, Ontario

Abstract

Studies have shown that e-learning seems to be a more established scholarly field in educational studies, both theoretically and practically, while the interface of educational leadership and technology remains relatively unexplored by comparison. This literature review aims to find out to what extent educational e-leadership has created a valid theoretical framework for the field and aims to synthesize previous research into a conceptual framework for educational e-leadership, based on the advances in both the field of education and e-leadership. Upon study, it became apparent that there remain various similar terminologies around e-leadership, which has caused a lack of unity among scholars—hindering development in the field of study. Five important topics were chosen to discuss including philosophy and pedagogy, competencies or growth of an educational e-leader, and models of quality management and trust.

Keywords: Educational e-leadership, philosophy, pedagogy, quality control models, TAM, UTAUT

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List of Acronyms

TPACK   Technological Pedagogical Content Knowledge

AIT   Advanced Information Technology

HEI   Higher Education Institutions

TAM   Technology Acceptance Model

UTAUT   Unified Theory of Acceptance and Use of Technology

DL   Digital Leadership

AST   Adaptive Structuration Theory

QM   Quality Management

EMIS   Educational Management Information Systems

ICT   Information and Communication Technology

OL   Open Leadership

CSF   Course Success Factors

MOOC   Massive Open Online Course

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CHAPTER ONE
Introduction

The integration of technology and online formats can be considered as a significant change to the field of education which by 2017 was growing globally at a rate of 7.9 % per year (Suzianti & Paramadini, 2021). The online educational format is also projected to grow 14.22% between 2022 to 2027 (Scherer et al., 2019). Publications on the topic of e-learning increased 123% between 2021 and 2022 which shows not only the interest in the field but also the noticeable increase in the practice of it. According to the National Center for Educational Statistics in the United States, the rate of online enrollment in universities in 2019 has overtaken the enrollment rate in universities in general (Protopsaltis & Baum, 2019). In addition, many universities have created online accessible courses, and alternate forms of universities have been established based on the principles of personalized engagement, such as competency-based programs in the United States (Selwyn, 2016; Weingarten, 2021).

In a meta-analysis of other scholarly papers about the student experience with technology, Bond et al. (2019) found that with regards to educational technology "learning" was researched the most with 2,466 (100% relative count), "students" (73% connectivity), "technology" (37 %), "research" (28%), "school" (21%), "training" (10%), and "time" (7%)" (p. 20). This shows an emphasis on the learning process in research works, as opposed to theory, policy, or educational leadership. As a result, e-learning seems to be a more established scholarly field in educational studies, both theoretically and practically, while the interface of educational leadership and technology remains relatively unexplored by comparison. Despite the considerations of using e-learning technologies in the classroom level (Baydas et al., 2015),

scholars have yet to fully study the reverberations of educational technology around educational leadership (Contreras et al., 2020; Van Wart et al., 2019).

The speedy integration of educational technology into e-learning has meant some change in educational leadership as well (Avolio & Kahai, 2003) and the subsequent rise of e-leadership (Van Wart et al., 2016). Liu et al. (2020) emphasize the importance of studying educational e-leadership through the fact that leaders can "fail to adopt relevant new Information and Communication Technologies, or ICTs, use them poorly, or use them in ways that actually diminish public value," which raises the importance of studying educational e-leadership as part of the rise of educational technologies within educational organizations (p. 300).

Educational e-leadership can be considered as a field of research which informs the practice of educational leaders who function in various levels of technology. It can be defined as a combination of a series of skills and strategies of decision-making that ensure both correct integration and navigation of technology and foster a healthy electronic social environment that encompasses trust where the leaders and members of the educational institution can facilitate their technological knowledge and skills together (Elkington, 2021; Garcia, 2019; Jameson et al., 2022; Yuting et al., 2022). This study will focus on e-leadership within the broader context of educational studies.

Aim of the Study

Upon a preliminary study of the theoretical basis of e-leadership in a general context or what is sometimes considered as the business context (Arnold, 2018; Avolio, 2000; Torre & Sarti, 2020), it became clear that there are some basic aspects that can be used in the educational context of e-leadership, and this study aims to bring them together. In comparison, it appeared that compared to the scholars of business context, educational scholars have used various

terminologies to describe the topic in the existing body of research. Therefore, this paper aims to provide a unified and comprehensive understanding of the concept of educational e-leadership within the context of Higher Education Institutions (HEIs) to find out how the quality of educational e-leadership is currently assessed.

Research Question

Considering the observation that each scholar may be initiating the use of a different terminology for the field of educational e-leadership, this paper aims to answer the question, to what extent has the literature around educational e-leadership been successful in creating a solid theoretical framework for the concept? The attempt was made to find the criteria for the success of educational e-leadership and to find out the differences between educational e-leadership and e-leadership. Answering these questions may resolve the need to restart building a framework in educational contexts. Additional research could assist in creating a more unified understanding of previous literature and it is justified if the research question is following the development of a concept (Mayan, 2016).

Rationale

It has been more than thirty years since the first proposal to study the relationship between leadership and technology, but the intersections of the two fields of study remain complex (Avolio et al., 2001; Torre & Sarti, 2020; Van Wart et al., 2019). Over the past decade, educational e-leadership has enjoyed a steady growth in interest (Garcia, 2019). McLeod and Richardson (2011) counted 57 articles that focused on educational leadership and technology. However, Oh and Chua (2018) counted 45 articles from 2000 to 2016 in the same area. Upon research at the end of 2022, it became clear that COVID-19, this population of papers has at least doubled which requires further review and consideration on the topic.

Since this digital transformation is an important topic to be studied (Alenezi, 2021), there is also a need to define and examine the concept of educational leadership in light of ongoing technological developments and find the methods and skills that educational leaders use to increase this performance with regards to ICTs (Adams & Velarde, 2021). In brief terms, Avolio and Kahai (2003) describe e-leadership as a type of leadership that is enhanced by information technology. Educational e-leadership, however, encompasses leadership and strategic decisions regarding the information technology in administrative work, the educational technology, and possibly quality management of online learning (Contreras et al., 2020; Selwyn, 2016).

Scholars have delved into various aspects of leadership in a general sense with respect to technology, but educational e-leadership remains relatively undefined (Jameson, 2022). There also seems to be a lack of unanimous understanding around what exactly defines educational e-leadership. E-leadership is often defined with various terms such as leadership in the virtual environment, Management and Leadership in EMIS, Virtual Leadership, Management and Leadership Educational Systems, and Digital Educational Systems. Each of these terminologies are either used synonymously or hold intersectionality with e-leadership.

The lack of cohesion may be caused by various terminologies used in the body of research that may sometimes hinder studies from building on other works. Cortellazzo et al. (2019) have noted that although considered as a "multi-dimensional phenomenon," e-leadership needs to be viewed through an array of disciplines. There is a need for cohesion and to "avoid fragmented knowledge" with "shared approach to study and theorize about e-leadership" (p. 5). Accordingly, this study aims to focus on e-leadership as a macroanalysis in terms of leadership and educational organization as opposed to the micro level of skills needed for e-leadership or leading virtual teams.

Moreover, this study may be beneficial as educational technology was largely introduced for the efficiency it added to education (Cortellazzo et al., 2019). The reverberations of that approach have created a level of uncertainty about the effects of that mindset in education. Particularly, many of the discussions about the public good as opposed to the "Silicon Valley" mindset (Bayne, 2015; Selwyn, 2016) have created a defensiveness among educational researchers towards the use of technology, which has resulted in them joining the trend later than other industries and hindering higher education from attaining, "enabling, and sustainable approaches" to leadership (Jameson et al., 2022, p. 2).

E-leadership has become increasingly important and relevant as managers in HEIs have celebrated the importance of skills needed for e-leaders, such as data analysis (Alexander et al., 2019). It seems that the role of leadership to achieve equality and inclusiveness, has been discussed and defined, yet there may still be the need to define the best methods of leadership that are compatible with online technology. Cortellazzo et al. (2019) stated that despite the definitions that many scholars have given, "there is no well-established and consensual definition of e-leadership" (p. 6). In educational e-leadership, the problem is even more tangible due to the limited theoretical research on the topic. In addition, some scholars have pointed to the "gap" between theory and practice, as there is a lack of empirical studies as well (Liu et al., 2018). In instances that empirical evidence has been found, it is usually limited to a particular geographical location or context (Bravo et al. 2022; Torre & Sarti, 2020).

Overall, it seems that educational e-leadership is a rich area that needs to be further explored, defined, and studied. It can be beneficial to use some of the basic definitions that are already provided by scholars such as Avolio and Kahai (2003) and connect them to the work of Siemens (2003; 2004; 2005) in the field of education.

Background

Selwyn (2016) regards Advanced Information Technologies (AITs) as "central to formal education" and notes "how alternate modes of education compete with" current universities. This competition, along with strides to keep up with the fast pace of growth of AITs, has resulted in national and global educational technology policies (Selwyn, 2016). This is reflected in the research during this era— in the literature between 1990 to 2010, the most recurrent key word describing the qualities of educational leadership was "change" (Avolio & Kahai, 2000). These changes are reflected in the publications on digital transformation in higher education which has increased by 200% since 2016 (Benavides et al., 2020). AITs helped higher education achieve efficiency, speed, convenience, and new possibilities with lower expenses.

Creating a definition for AITs thus paved the way for defining e-leadership. In one of the earliest and most important papers, Avolio and Kahai (2000) defined AITs as "multiparty participation in organizational and inter-organizational activities through sophisticated collection, processing, management, retrieval, transmission, and display of data and knowledge" (p. 616). Twenty years later, Torre and Sarti (2020) added that these AITs have "higher levels of basic characteristics and properties of technologies while serving a complementary role to traditional technology" and pointed to the changes the AITs are causing to the working process (p. 2). This definition was not created by educational scholars. As a result, its adaptation into education became somewhat selective. While e-learning flourished with this adaptation, e-leadership lagged behind. The primary connotation of educational technology is the uses in the classroom or the uses in the context of e-learning. This is why, when discussing e-leadership, the term AITs may be a better fit.

The uses of AITs often include "sharing information, planning, record keeping, or data analysis" (Contreras, 2020, p. 4). Not only do AITs cause change in an organization and in leadership routines, but effective use of AITS is also deemed necessary for the success of leaders today (Montgomery et al., 2016). In addition, with the emergence of online learning, "the tension between demands on professionalization and unbalanced competencies of leaders" (Quinlan, 2014, p. 1) was the first challenge for e-leaders in education. As a result of that change, Avolio (2000) called for "significant adaptation of leadership in organizations" (p. 1). Hence, Avolio et. al. (2001) further insisted that the effectiveness of AITs is conditioned by the way they are managed. AITs have also changed the goals of educational leaders. According to Wagner (2008), the current format of knowledge publication and consumption has altered the kind and nature of tasks that students do. This transformation has affected the policy and goals of educational leaders since the needs of the job market, academia, and the nature of education, to some extent, have changed simultaneously. Knowledge retention has become less important than the soft skills, and that changes the pre-requisites for the very definition of education to some extent. The order of priority to study each of the now changed aspects of education was described in 2002. One of the first to introduce the idea of e-leadership into the educational research sphere, Winn (2002) created a four-phase category of research in online educational technology:

- "The Age of Instructional Design: A Focus on Content" and teachers

- "The Age of Message Design: A Focus on Format," tools, learning, design for learning

- "The Age of Simulation: A Focus on Interaction" between learners and educators based on constructivist pedagogy.

- The "New Age" of Research in Educational Technology: A Focus on Learning Environments" mainly, AIT, ICT, and digital environment. (pp. 332-336)

Notably, none of the four phases of that era included educational leadership. In that period Gurr

(2004) called for educational leaders to acquire the competencies that e-leadership had

established outside education, namely online competencies, such as communication skills and

interactive communication, adapting with decentralization, intricacies of the online context, and

rapid change. Today, the adaptations that leaders make as a result of AITs or other types of

technology are called e-change (Contreras et al., 2020). Many studies have explored these

changes in detail and called for AITs to be more than tools of communication (Liu et al. 2019).

The study of educational e-leadership, therefore, is not limited to finding and describing e-

change. The use of AITs in higher education has, in addition, led to a set of competencies

educational leaders needed to acquire. A decade later after, Winn (2002) projected another phase,

"which focused on the adoption and management of technology and the involvement of e-

leadership"; meaning that by that time, they had not entered that phase yet (pp. 890-892). He

defined the purposes of e-leaders as "visioning, strategy making, meaning-making in a complex

adaptive system, learning and teaching pedagogical leadership, virtual team leadership, change

management, conducting policy for distributed leadership and research management

entrepreneurialism" (2013, p. 909).

As to why e-learning developed much faster than e-leadership, there might be two

possible reasons. Firstly, the fact that technology was initially used in classrooms, meant that

technology solely automated previous methods of instruction instead of "employing [the] best

thinking and efforts to create a new future" (Bush & Mott, 2009, as cited in Markova, 2014).

Secondly, a look back at eras shows that education went through the e-change bottom-up

approach instead of top-down approach, which shows a lack of strategy in the process. For the

same reason, Selwyn (2016) questions whether technology has been beneficial to education at all

by calling the process of e-change in education a "bloody revolution" (Selwyn, 2016; Wagner, 2011), due to the resistance of many educators towards technology. Other scholars have noted that technology is being used as a tool for communication, without any intended strategy from leadership (Jameson, 2013).

In conclusion, in the field of education, the biggest projection for the future of educational e-leadership is that it will play a pivotal role in the transformation of many aspects of education (Markova, 2014). The many changes that technology has created in e-leadership are not explored at the same depth they are explored in e-learning. In addition, some of the research in e-leadership may prove valuable in theories of educational e-leadership. The field may also benefit from learning how the success of educational e-leadership is currently defined and measured. According to Arnold (2018), the fifth age in research about educational technology is related to leadership. For this purpose, a review of literature is completed in the next chapter to better understand the existing knowledge in the field.

CHAPTER TWO
Literature Review and Definition of Terminology

In this chapter, the concepts of leadership, educational leadership, e-leadership, and educational e-leadership are defined. Also, the various terminology that has been used in the field to describe the concept of educational e-leadership is traced. In addition, to find how e-leadership is assessed for Quality Management, the most important models, the Technology Acceptance Model (TAM) and the Unified Theory of Acceptance and Use of Technology (UTAUT) of e-leadership are introduced. The contexts for where these models work are explored and finally the relationship between educational e-leadership and pedagogy is outlined and discussed.

Leadership

The term leadership has experienced continuous evolution. It is defined and redefined and deconstructed based on various definitions reflecting social and organizational values through time and space. Winston and Patterson (2006) defined a leader as someone who is responsible to teach, lead, train, and influence others. Leadership has a broad scope of research and practice (Krause et al., 2007). As a social construct, it has an evolutionary nature, and as a result there have been many different ideas, definitions, and styles defined as leadership (Silva, 2016). Thus, leadership plays an important role in "organizational behavior studies" (Slocum & Hellriegel, 2007 as cited in Torre & Sarti, 2020, p. 2). "Leadership is also defined as an influence relationship among leaders and followers who intend real changes that reflect their mutual purposes" (Silva, 2016, p. 2). In fact, Northouse (2007) considers effectiveness as the most important factor of leadership. More recently, leadership has been viewed as a transactional dynamic between the leader and the followers. (Jameson, 2013; Jameson, 2022). This has decreased the level of responsibility of leaders and changed the previous views of leaders as

heroes (Jameson, 2022). As many as 17 types of leadership are now defined, with some of the

main types being autocratic, democratic, laissez-faire, and transformational (Silva, 2016).

Respectively, these types of leadership allocate more to less power to the leader (Pierro et al.,

2013). A transformational leader is usually responsible for being the frontrunner to bring a kind

of change to the organization. In addition, there is delegative leadership that includes a leader

who allocates responsibility to members or sections of the organization (Krause et al., 2007).

Furthermore, in the evolution of the concept of leadership, it can be noted that leaders were

previously expected to focus primarily on the benefits of the organization, while currently the

affairs of followers are also a part of leaders' roles (Tedla & Vilas, 2022). In sum, it seems that

leadership has shown an evolution from the benefit and or profit-centered approach to a team-

centered or collaborative approach in which learning, developing, and evolving of the leader and

followers are equally important (Orgen et al. 2019).

Educational Leadership

In a fundamental definition of leadership in the field of education, Leithwood (2005)

mentioned that leadership fundamentally can be narrowed down to the two functions of influence

and direction. The educational leader's effect on learning, student performance, teacher

performance, and most of all culture have been studied (Jackson & Kelley, 2002; Leithwood,

2005). Instructional leadership is one of the models of educational leadership that supports the

development of learning and teaching (Harris et al., 2019). It is also sometimes called

pedagogical leadership, learning-centered leadership, student-centered leadership, and leadership

for learning (Rhodes & Brundrett, 2010). Over the past twenty years, there have been many

models, styles, and theories that have defined educational leadership, each allocating various

levels of influence and direction to the educational leader. Most recently, it is more common to

consider influence as a bilateral effect between leader and the followers, or more accurately members of an organization. Since any reformation includes change, one of the most prevalent theories today is transformational leadership (Hallinger, 2003). Along with distributed leadership, these models show a tendency among educators to not see the leader as the only source of authority or expertise (Hallinger, 2003). Transformational leadership thus has much in common with educational e-leadership since they both aim to navigate an organization through a change process.

E-leadership

E-leadership is not an extension of traditional leadership (Avolio & Kahai, 2003). However, Lui et al. (2020) claim that the set of skills needed for e-leaders and traditional leaders are similar. Many scholars believe that the biggest current change in leadership is intermediation of AITs, which has led to various changes (Avolio & Kahai, 2003; Torre & Sarti, 2020). The result is the development of the field of e-leadership. ICT has become not only an integral part of education as a medium and platform of teaching, but also as an influence on the culture of educational organizations, which has affected the way leadership is being practiced (Cortellazzo et al., 2019; Darics, 2020; Torre & Sarti, 2020). E-leadership happens in an e-environment, which is defined as the context where "the work is mediated by information technologies, high complexity and a changing working environment that makes imperative for leaders to change their practices, attitude, and behavior for long term organizational sustainability" (Contreras et al., 2020, p. 2). Hence, the strategy to maneuver change in this environment needs a specific form of leadership, which was defined more than two decades ago.

Avolio et al. (2000) introduced e-leadership as a concept that needs to be studied with the aim of seeing leadership within the new context of information technology. In their initial

definition of the term, only the aspect of leadership that is conducted via the use of AIT was

considered. However, they later adjusted the very same definition to include long-distance or

distal contexts and short-distance or proximal contexts for one leader (Avolio, 2014). With the

latter changes, e-leadership is defined as "a social influence process embedded in both proximal

and distal contexts mediated by AIT that can produce a change in attitudes, feelings, thinking,

behavior, and performance" (Avolio et al., 2014, p. 107). Arnold and Sangra (2018) believe that

"social influence processes… mediated by AIT" are not regularly seen in practice and research

around it (p. 22). A field that Jameson first noted should bridge the fields of education

technology and education leadership research (2013). Razzak (2015) goes as far as calling e-

leaders, frontrunner "digital citizens". The responsibilities for them can include all the

responsibilities of other educational leaders, such as equity and assessing performance, in

addition to leading the curriculum and updating teaching staff on ICT (Yuting et al., 2022).

Torre and Sarti (2020) define e-leadership as the "emerging phenomenon" that is

continuing to develop through AITs and which has significantly impacted the relationships of

workers. Zacarro and Bader (2003) view the term e-leader more liberally as any leader so long as

they follow through with the procedures of leadership through an online panel. Van Wart et al.

(2019) emphasize that e-leaders need to be innovative in their use of technology, create a

positive environment in the organization, and ensure these conditions are provided using

technology. However, they also insist that the definition of e-leadership needs to reflect the non-

digital aspects or the work of e-leaders as it encompasses both.

It is noticeable in reviewing scholarly works on e-leadership that almost all of them start

by mentioning the changes that technology has created in various organizations. In that light, it

may only be fitting that Arnold (2018) considers e-leadership as being under the wider category

of leadership for change or transformational leadership. Therefore, leadership definitions on

change management and distance education management may also be applicable, namely

Beaudoin's (2002) definition as "a set of attitudes and behaviors that create conditions for

innovative change, that enable individuals and organizations to share a vision and move in its

direction, and that contribute to the management and operationalization of ideas" (p 2). This

interpretation of e-leadership initially provided by Arnold (2018) may have set the groundwork

for e-leadership to be considered as a type of transformational leadership or a type of leadership

for change. So that Jameson (2022) uses the term e-leadership for organizations that are in the

process of change towards the digital environment as opposed to organizations that have

comfortably launched their digital presence.

　　　　Liu et al. (2020) add further insight to the wide range of definitions for e-leadership.

They created a categorization for these definitions in which "narrow definitions" are ones that

consider e-leadership as simply merging leadership and ICTs. In contrast, in "broad definitions",

both ICTs and AITs are considered as a support for the decision-making process in an

organization (Liu et al., 2020). Finally, the "grand definition" of e-leadership considers AITs as

part of the structure of the organization and as a result e-leadership and AITs would be in a

constant process of affecting one another through the "virtual communication, knowledge

management, and the evolution of the system" (Liu 2020, pp. 300-303, 321).

　　　　The results of an empirical study in Italy show that leaders are becoming more aware of

new technologies, and that leadership has evolved to pay more attention to "soft competencies"

(Torre & Sarti, 2020). The study introduces four different typologies of e-leadership. The first

typology is when e-leadership is non-present. In this group, the most important characteristic of

these leaders is that they implement change, only when it is utterly needed (Torre & Sarti, 2020).

The second group of e-leaders were recognized as ones that stem from the ICT department

(Torre & Sarti, 2020). These e-leaders hold the most important ICT related position, are

themselves professional in technology, work closely with the chief executive officers, and

exhibit e-leadership in full effect (Torre & Sarti, 2020). Torre and Sarti (2020) describe the third

group of e-leaders as unofficial leaders who appear often in decentralized organizations and with

no formal title or introduction of the concept of e-leader and seem to be exhibiting the qualities

needed to solve issues related to decentralization or the changes pertaining to digitalization. The

last group of e-leaders are found to be ones that operate in organizations that are comfortable

with the use of technology. These adaptable e-leaders are not necessarily professionals in

technology, rather they are focused on the goals of the organization and show the tendency to try

any method that keeps the relationship among the organization members and helps achieve the

goals (Torre & Sarti, 2020). This typology of e-leaders is indeed unique in the current literature

of e-leadership and shows various stages of technology acceptance and attitude towards the use

of technology. It is no coincidence that these qualities happen to be the criteria in assessing the

quality of e-leadership.

Quality Management Models in E-leadership

To define e-leadership comprehensively, it is important to learn the criteria that have

been recognized to assess the quality of e-leadership to date. The Unified Theory of Acceptance

and Use of Technology (UTAUT) and the Technology Acceptance Model (TAM) are based on

well-established psychological theories such as Theory of Reasoned Action and Theory of

Planned Behavior (Scherer, 2018). UTAUT unifies eight models of technology acceptance,

including Technology Acceptance Model 1 and Technology Acceptance Model 2 to include not

only acceptance but various factors, motivation, and the context of use of technology

(Ammenwerth, 2019; Bravo, 2022). First proposed by Venkatesh and Davis, UTAUT has been

in development since 2003. UTAUT views the matter from the viewpoint of an individual and

considers the decision to use technology as depending on the person's purpose of using that

technology in a particular organization (Venkatesh et al., 2016). The goal is to "assess the

likelihood of success for new technologies and to understand drivers of acceptance"

(Ammenwerth, 2019, p. 66). The chart below as outlined by Venkatesh shows the external and

internal elements of the UTAUT model; the four key variables are introduced and defined in

Figure 1.

Figure 1

The UTAUT Model for Acceptance and Use of Technology
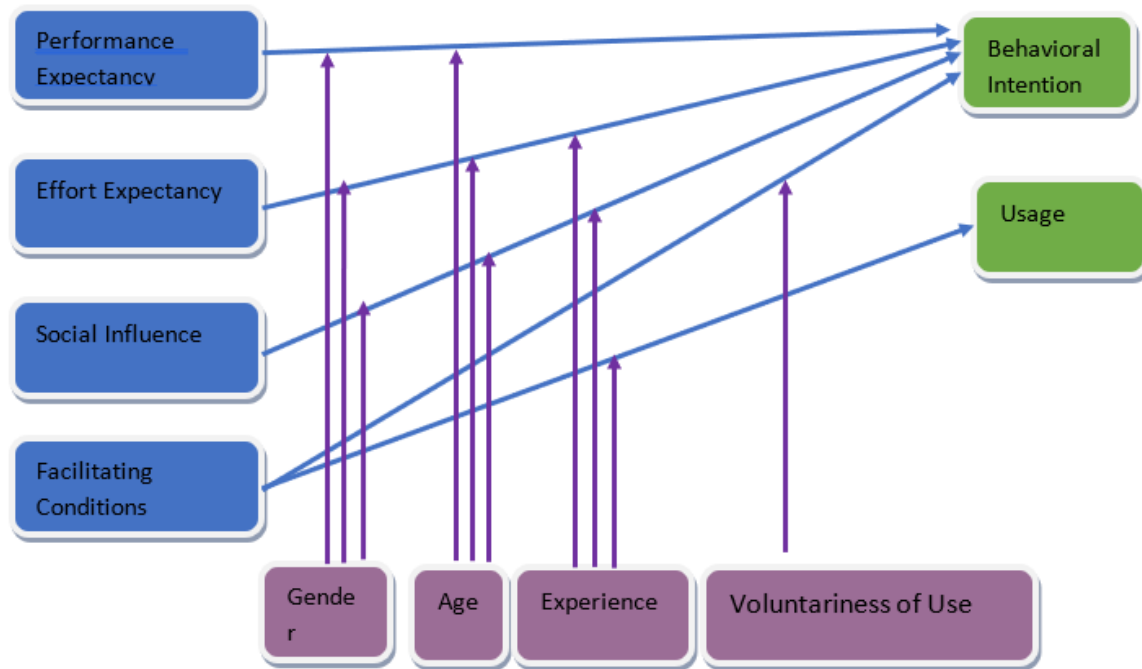
Note. The graph shows possibly all the criteria that can affect the level of technology use and acceptance by an employee. This graph considers personal criteria and organizational ones and shows how these criteria affect each other. From Venkatesh et al., 2013.

The models are not designed for educational institutions, however, compared with the literature in educational contexts, Markova (2014) notes that the speed and the method of adopting AITs in HEIs significantly impacts the mindset of faculty members. Other factors affecting the use of technology are uncertainties of each faculty member and the organizational culture and tradition of the HEI (Assogbavi & Maurice, 2005; Markova, 2014). This shows that the findings of the models and what educational scholars have noted do have some alignment and thus the models can be applied to HEIs.

Unlike other businesses, in educational organizations, instructional designers can help achieve technology acceptance or innovations with technology (McGriff, 2001). However, "misinterpretations of the market, problems faced by traditional schools, start-up costs, choice of development/delivery model and faculty skepticism" are reasons that hinder online HEIs to succeed (Assogbavi & Maurice, 2005). Models that include various criteria such as UTAUT can help educational e-leaders and instructional designers to make more strategic decisions.

Some believe, in order to keep UTAUT in balance, e-leadership should demonstrate charismatic leadership (Neufeld et al., 2017), which can point to the need for transformational qualities in an e-leader. Many other scholars believe that in such an environment, e-leaders should adapt by accepting and supporting the new organizational culture that are resulted from the new environment, by raising their level of awareness, recognizing the correct methods to respond, and finally by finding out the kind of competencies that the organizational members need to thrive in the new environment (Bergum, 2009). This method seems to be embracing the new changes that technology has created in leadership in their entirety. The graph shows the criteria that can be used to create a suitable environment for the acceptance and use of technology.

Comparing UTAUT with TAM models, the many similarities between the two, but concludes based on several other scholars' works that TAM is more effective in showing "user intentions and actual technology use" (Nistor & Heyman, 2010). As a result, TAM is mostly used to assess teachers' and professors' acceptance of technology rather than e-leaders. Based on TAM, scholars consider three contributing factors of success for an educational open leader, including "technology acceptance," "self-efficacy in technological leadership," and "digital citizenship and subjective norms" (Akcil, 2017; Scherer et al., 2019). The first factor, technology

acceptances, can be measured with TAM. According to Scherer et al. (2019), technology

"acceptance and usage continue to be still problematic for many educational institutions" (p. 14).

Acceptance of technology is under the influence of two items: the ease and usefulness of its

adaptation (Akcil, 2017; Davis, 1989; Scherer et al., 2019). Figure 2 shows the elements of the

TAM model which were discussed in detail. Knowing the elements that affect technology

acceptance can help educational e-leaders create more effective strategies that lead to higher

degrees of technological acceptance.

Figure 2

Elements of TAM Model
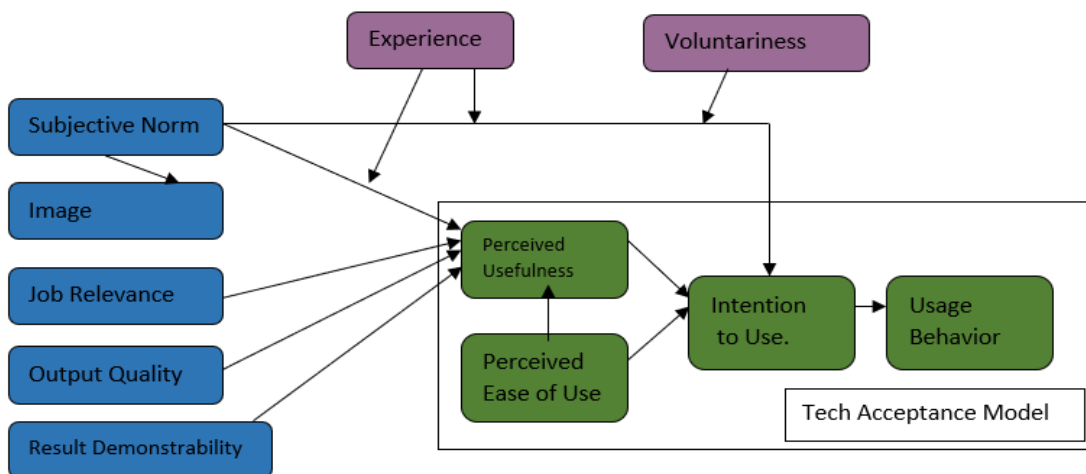
Note. This image was created using the Venkatesh and Davis (2000) model. It is visible that
items are more specifically discerned, but the relationship among them is explored rather less
deeply compared to the UTAUT model in Figure 1.

To have a comprehensive theoretical framework of educational e-leadership, being mindful of

the progress in quality management in e-leadership can be quite beneficial. Creating models of

quality control and educational e-leadership based on previous research and practice can help

educational scholars build on previously established models while adapting with those already in

the field.

Towards Defining Educational E-leadership

The educators in HEIs who have the experience of teaching online have engaged with

elements of strategic educational e-leadership practices. Many organizations, including

educational organizations, have viewed technology, online platforms, and AITs as having

harmful or challenging qualities (Contreras et al., 2020; Esguerra et al., 2016; Selwyn, 2016).

However, Zaccaro and Bader believe that e-leadership is the rule and not the exception (2003).

Naturally, "leadership is a necessary requirement for an organization's process and performance

in higher education" (Markova, 2014, p. 2). To remain competitive, educational organizations

are adapting e-learning and yet "not all organizations consider e-learning as a critical part of

strategic planning" (Cordie & Lin, 2018, pp. 76-77). As a result, there is a need for strategic e-

leadership in HEIs. Jameson et al. (2022) have noted that in HEIs, the progress of advanced

digital maturity is slower than other industries. They maintain that "higher education is digitally

far behind most other industries" in "organizational, administrative and faculty leadership

responses to technological change" and "building the capacity for future challenges" (Jameson et

al., 2022, p. 1). Perhaps this shows the need for defining an interpretation of e-leadership that

responds to the digital environment directly, which may in turn respond to the lag between the

development of educational e-leadership and e-learning and bridge the gap between higher

education and other industries. Defining the educational e-leader may also entail creating a

philosophy of educational e-leadership and by extension, adapting a philosophy of learning in a

particular organization or context.

McLeod and Richardson (2011) believe that technological leadership is not just an aspect of added responsibility for educational leaders, but the very skills and competencies that educational e-leaders need to change the nature of educational leadership, and determining what these new competencies include requires ongoing conversation and research. Educational e-leadership is largely decentralized and non-romantic— it does not espouse the idea that a powerful e-leader can act as a hero online HEI (Collinson, Jones, & Grint, 2018). In organizations that are in the process of becoming comfortable with technology, there seems to be two possible approaches. Either the educational e-leader needs to become the front-runner of that change and thereby be the hero educational e-leader or this person needs to create the context for change, learning as a team and adaptability to occur at the grassroots level. The changes that the educational e-leader needs to respond to are categorized by Selwyn (2016), as accessibility, personalization of education, quantifying education, and commercializing of education, while going on to debunk some of these and call them a front. These technological changes caused by AITs are believed to affect people's behavior, thinking and level, and quality of their engagement (Torre, & Sarti, 2020; Wellman et al., 1996). In conclusion, identifying the areas for change and the mindset of viewing the leader as a hero or not has largely differentiated way scholars have discussed adaptation to and creation of change as top down or grass-root level of changes.

Connected to the small number of quantitative research studies whichscholars have repeatedly criticized (Avolio 2000; 2001; 2003; Jameson, 2022), there seems to be a lack of unity in terminology and disintegrated research approaches in the field as well. In some papers, the concept of leadership in an online educational environment is called educational e-leadership (Arnold, & Sangrà, 2018; Gurr, 2004; Garcia, 2020) or educational leadership in the online

world (Ribble, & Miller, 2013). In other papers, this concept is almost synonymous with online

management (Contreras et al., 2020); leadership for online instructional design (Foureman,

2010), leadership in the use of educational technology (Markova, 2014), distant educational

leadership (which includes educational virtual leadership) (Alward & Phelps, 2019), distance

learning environments (Garcia, 2015), advanced digital leadership in higher education

institutions considering educational e-leadership as a less mature version of digital leadership

(Jameson et al., 2022), digital education leadership (Brown et al., 2016), emergent leadership

(Hanna et al., 2021), leading virtual teams (Chua & Oh, 2018), and technology leadership,

(McLeod & Richardson, 2011). This lack of cohesion in terminology (Eberl & Drews, 2021)

may have prevented leadership practice in HEIs from being fully informed or developed.

Jameson (2022) points to "significant discontent among faculty resulting from disassociated top

level leadership practices" and "a disconnect between top-down senior higher education

institutional management and grassroots individual classroom innovation" (pp. 1-3). However, in

international publications, more specifically in Europe and Asia, the term e-leadership is the

focus of various studies without traces of tension or disparity with other terminology, namely,

Akram and Khan (2020); Yuting et al. (2022); Mustajab et al. (2020); and Antonopoulou et al.

(2019) focus on e-leadership, but occasionally use it interchangeably with digital leadership;

Sunarsi (2020); Kotula (2021); Gkoros (2022); Sathithada and Niramitchainont (2019). In total,

476 institutions around the world are showing interest in educational e-leadership studies

(Garcia, 2020). Scholars thus need to recognize the need to converge and clarify the terminology

for further research to ensure the field can continue to evolve and mature.

Contrary to Van Wart (2019) and Garcia (2015) who consider e-leadership and digital

leadership as the same concepts, Eberl and Drews (2021) consider e-leadership as the

subcategory of digital leadership, noting that the latter encompasses the personal, organizational, and leader levels. They argue that e-leadership makes an effort to support, change, transform, and digitalize existing organizations, while digital leadership is a tool to achieve the success in an already digitally enabled organizations (Eberl & Drews, 2021, as cited in Jameson, 2022). However, critics also tend to use the term digital leadership for the transition to online education (Msila, 2021). In addition, when Avolio (2000, 2001; 2003) defined e-leadership, a transient nature in digitizing an institution was not the defined target but only an element of change that has revolutionized the work environment. Whereas it can be argued that most universities are previously organized institutions and although many of them are digitized in the grassroot level, leadership is still relatively the same and is using ICTs in the capacity of communication tools. As a result, in this study, landing on the term educational e-leadership, the effort has been made to unify the literature and create a more coherent understanding.

This lack of cohesion may stem from the use of e-leadership in business literature to the point that Brown et al. (2016) describes it as having historical baggage and opt for the term "digital education leadership". They aimed to differentiate the focus of business or educational technology in e-leadership from digital education leadership with a greater focus on digital culture. This definition overlooks that e-leadership is defined as functioning in the e-social environment and leading an e-culture (discussed in chapter four). Brown et al. (2016) defined a digital education leader as someone who adheres to not only "successful implementation of technology in teaching and learning practices" but also "have the capacity to foster a culture of collaboration, innovation and lifelong learning in evolving, digitally mediated societies [and] to have insight into the needs of organizations and individuals in a digital [education] landscape" (pp. 6-8). Each critic seems to be building arguments towards a new term, while at the core these

studies all cover a relatively similar area and can build together towards a defined method of

practice and a more sophisticated research field.

Between digital leadership and e-leadership, another difference has been that digital

leadership may still include some in-person aspects. That difference will supposedly add two sets

of needed skills for the leadership team, in-person skills and online skills. However, e-leadership

literature specifies a mix of in-person and online features and is the best formula to achieve

success for e-leaders as a result of being vary of the possible downsides of the online

environment (Brunelle, 2013). Yet, virtual leadership considers the traditional in-person methods

a drawback altogether (McCann & Kohntopp, 2019). It can be concluded that e-leadership and

digital leadership have more overlap and are more distinct from virtual leadership. Virtual

leadership is also argued to have a separate sense from the business connotations of leadership,

which is a sense of including public good. Contrary to some scholar's claims, e-leadership

considers an e-environment with e-teams whose needs and requirements of these are also studied

in detail. As a result, the literature on e-leadership has become more focused on business as well

as non-educational areas (Mishra et al., 2016).

Digital leadership defines a more mature understanding of the concept with technology

and leadership as two components "in a dialectic tension and with mutual influence" (Jameson,

2022), while e-leadership views technology as a context for industries such as education. In other

words, e-leadership is a specific type of leadership that happens in the e-environment. Although

in practice it tends to be less often true, e-leaders are supposed to be responsible for the long-

term planning of an educational organization, while digital leadership is an element in the

strategy. The literature around digital leadership seems more theoretical, while e-leadership is a

more hands-on concept and deals more with the reality of how it is currently being conducted in practice.

Contreras et al. (2020) argue that since communication and educational technology has facilitated the formalities of management, the two roles of online management and online leadership can easily merge now. They also argue that being aware of the process of online management is a prerequisite for a successful e-leadership (Contreras et al., 2020). However, because the concept of leadership has gained more status in academia (Jameson, 2009), it may explain why scholars try to differentiate the two topics. As a result, when it comes to specifying the details of how leadership should conduct itself, neither of the literature fields is entirely different or distinct. Each of them seems like a wide range of terminology that in essence describe the same concept or overlap greatly.

Another reason that may have prevented the field from being thoroughly studied is the distinguishing the sectors of online education, such as e-leadership, e-learning, e-curriculum, e-environment (culture), ICT, and pedagogy of online learning. Leadership is the cog that engages with all these aspects of education. Forgoing the intersectionality of these terms may have hurt the body of research by creating an incomplete picture.

In a model that can be categorized in Jameson's phase (2013), Markova defined leadership for the use of educational technology as having five blocks including: Leadership, Changes, Learning process, Instructors and Educational Technology (2014). In this model, Markova considered it the job of the e-leader to determine if learners are responding well to the use of technology and if it is meant for all students.

In comparison to Jameson, Markova's (2014) definition of an educational e-leader has a stronger emphasis on the e-environment and transformational leadership. Markova (2014)

insisted on the importance of inspiring others by implementing "technology leadership

strategies" and "reform strategies" by calling change as the "single most important" driving force

for leaders to make "new educational and organizational models" (pp. 7-9). In light of the

emphasis on change, Garcia expects the professional educational e-leader to have two distinct

qualities that may often be considered as conflicting in educational literature; firstly, to have the

proficiency to direct the technological changes, and secondly, to have the correct modern

humane values (Garcia, 2015). Hence, these new educational e-leaders need to create trust in a

team through the use of ICT, be able to screen the process and progress of a virtual project while

making sure of distributed diversity (not a symbolic one), and they need to make sure the team

members are benefitting from being part of the team as well as ensuring their visibility (Garcia,

2015).

Similarly, in another model, Alward and Phelps (2019) define virtual leadership in higher

education to include "seven major themes...(a) training and development; (b) trust; (c) emotional

intelligence; (d) communication/team building/technology; (e) employee recognition and

motivation; (f) leadership styles; and (g) virtual leadership competencies unique to higher

education" (p. 72). The model and the definitions between educational e-leadership and virtual

leadership are essentially similar. If there was a context in which a more unified definition and

use of terminology could be agreed upon, the entire field would become more organized and less

chaotic. Currently, many scholars still strive to achieve a definition, and this prevents building on

others' work and becoming more advanced.

In an educational context, leadership can be seen as involving more factors than

leadership for business. For instance, to show that leadership and learning are intertwined,

Brown and Posner (2001) demonstrate that leadership behaviors are directly linked to "the level

of activity of learners" (pp. 274-276). Similarly, Rosch and Anthony (2012) consider leadership

to be the foundation of successful pedagogy and program design as one of the three aspects of

pedagogy. In terms of structure, e-leadership has shifted from the mechanical standpoint to a

more flexible and organic one. (Avolio, 2001; Pulley & Sessa, 2001; Torre & Sarti, 2020). In the

educational literature, the distinction between leadership and management is emphasized. Calling

the debate "polemic and unfinished," Contreras et al. (2020), believe that the roles are more

distinct in online contexts (2020). Gurr (2004) indicates this difference by showing that the

educational e-leader needs to have constant and effective communication with the team members

to create a successful environment. This is why more recently Darics (2020) seems to believe the

distinctions of educational management and leadership are blurred the online context. In more

detail, management in online organizations has become more efficient by using AITs. However,

leadership with the aim to influence the organization members to strive for success is more

challenging than leadership in traditional contexts (Hoegl & Muethel, 2016 as cited in Contreras

et al., 2020). In online contexts, there also seems to be less direct supervision for employees

(Avolio, 2014; Wojcak et al., 2016). The reason can be because e-leadership gravitates towards

distributed and decentralized leaderships or what Gurr calls dispersed leadership (Flood, 2019;

Jones & O'Shea, 2004 as cited in Gurr, 2004). If done effectively, e-leadership demonstrates less

hierarchy on the scalar chain, and there would be growth on the level of connectivity and

available information, which in turn results in "creation of value" for the organization and results

in more independent employees who are capable of making effective decisions (Cortellazzo et

al., 2019; Cortellazzo et al., 2020). Effective educational e-leadership also supports teaching and

learning technologies. E-monitoring not only online teams and online work, but also the progress

and quality of the use of AITs (Garcia, 2015). Garcia also considers it necessary for the e-leader

to be proficient in the subjects and terminology of distant education, be aware of the current and future trends of AITs and be proficient in design of distant learning or what Fourman calls e-leadership for instructional design (Fourman, 2010; Garcia, 2015). Garcia (2015) calls e-leadership an emergent field that is participatory, distributed, and constantly transformational both on personal and organizational levels to keep up with the newest trends of the developments of AITs.

In conclusion, educational e-leadership is a concept that has been researched under various names and terms. Educational e-leadership is connected to e-learning, pedagogy, program design, program structure and educational technology support and strategy. In defining this concept, these nuances are important to keep in mind as the field evolves.

Pedagogy of Online Education for e-Leadership

The concept of educational e-leadership in HEIs is usually viewed in terms of its dynamics between the leaders, the team of professors and administrators, and ICT. However, it can also be viewed in terms of the pedagogy of online learning and the quality of leadership affecting e-learning, the quality of work of the team members, power distribution, and culture (Jameson et al., 2022). Cordie and Lin (2018) emphasize the effects of e-leadership strategies and student learning, high quality program, and institutional ranking while showing that not many organizations consider e-learning in their strategic planning (2018). Anggrainingsih et al. (2018) identify five Course Success Factors (or CSFs), including "fiscal policy, regulatory policy, course quality, relevant content, and technical support" (p. 1). These are conditions that can determine the success of HEIs competing in the education industry. Of the five CSFs more than half are either initiated by leadership or managed by them. Therefore, viewing e-leadership

as an isolated practice from what determines success in classrooms may lead to missing some integral aspects of leadership within HEIs.

The theory of e-learning was developed years earlier than educational e-leadership. In practice, there has been the urgency to adjust pedagogy to the age of technology, while leadership has yet to be re-defined in the same light. Although in the field of education, leadership, pedagogy, and learning are each a separate concept and field of their own, the intersectionality of these in the online remains evident. The success of an online pedagogy depends deeply on the style of e-leadership that supports it, which in turn is a prerequisite to student success. Bush et al. (2011) also consider effective e-leadership and management necessary to provide learning opportunities for students in HEIs, noting that "emerging evidence (shows) that high quality leadership makes a significant difference to school improvement and learning outcomes" (pp. 32-39). In this light, it may be misguided to assume that the type of effective leadership for in-person education can successfully work in an online platform. For example, distance learning uses pedagogy that guides learners through their learning journey as opposed to transfer of knowledge (Darabi & Sikorski, 2006). In that case, a traditional leadership approach that leans towards examination to test the transition of knowledge may not be the best supporting type of leadership for that particular pedagogical approach.

Connectivism

One commonly known theory related to online teaching is connectivism, which was introduced in 2005 by two theorists, George Siemens and Stephen Downes. Siemens (2004) first published a paper titled Connectivism, and one year later expanded on the concept in Connectivism: Learning as Network-Creation (2005). He emphasized learning, not as knowledge transfer, but as connection and a network creating process (Siemens, 2005). Siemens believed

that "learning happens outside the brain, in computers and databases" and networking is the basis

of knowledge creation that feeds into a learning community (Siemens, 2005, as cited in Corbett

& Spinello, 2020, pp. 2-3). In this way, connectivism is considered to be "social learning that is

networked" (Duke et al., 2013 p. 6). In a 2006 book, *Knowing Knowledge*, Siemens made an

effort to "transform instructional and organizational designs based on the changed context of

knowledge" (Corbett et al., 2018, p. 4).

Siemens pointed to the relation of connectivism and all facets of life including leadership

and management (Siemens, 2004, 2005a). Connectivism is a theory of learning that defines

learning as dynamic as opposed to formal and based on connection as opposed to linear and

sequential (Siemens, 2005b). So, if a higher education organization aims at connectivist

knowledge, the programs would not be designed as a series of hoops for students to jump

through to arrive at a degree (Trotter, 2003). Such a pedagogy needs to be supported by a

leadership style that has both a matching infrastructure and matching methods and skills. In fact,

some scholars have called for an educational e-leadership style that is based on connectivism.

Corbett and Spinello (2020) consider connectivism "a key factor in organizational leadership

theory" and hope it would spark a new form of leadership called "connectivist leadership" that

can support online learning, influence with and within networks, and be connected and collective

as opposed to adhering to hierarchy and the scalar chain (pp. 1-3, 7). Corbett and Spinello (2020)

and Goldberg et al., (1993) explain that although the discourse of leadership has moved on from

looking for a heroic leader, in practice the scalar chain remains active today.

Connectivism has had its critics. Initially, it seemed "radical, shocking, controversial, and

nebulous"; today it is still not completely accepted (Corbett et al., 2018, pp. 4-5). The main

criticism of connectivism has been that it is not a pedagogy to stand on its own and needs to be

used alongside other pedagogies (Ally, 2008). Some scholars believe that "although it recognizes the paradigm shift that is taking place in learning, its contributions do not merit its treatment as a new and independent theory" (Bell, 2011, p. 7). It seems that connectivism has tried mostly to knock down structures that belong to previous eras, without creating a comprehensive theory that could replace the previous structural design of an organization and leadership styles.

With its strengths and weaknesses as a pedagogy, Natt och Dag (2017) still hope that leaders "can be inspired to apply connectivism as a lens to further understand adult learning theories in the era of information and technology as well as apply it to the development of leadership programs aimed at highly skilled professional groups" (p. 1). Natt och Dag believes that using connectivist leadership helps leadership learning go beyond the traditional approaches and theoretical frameworks of learning leadership skills (Natt och Dag, 2017). The four pillars of connectivist thinking that can be applied to connectivist leadership or e-leadership are autonomy, connectedness, diversity, and openness (Tschofen & Mackness, 2012).

One of the main features of connectivism is openness or connectedness, which can feed into e-leadership by creating the context for networking. Siemens had defined nodes and networks to show that learning happens in networks (Siemens, 2004; 2005; 2006). In an online organization, learning happens on two levels for both the students and the staff since both groups need to constantly be up to date with the most recent changes in technology as well. As a result, Natt och Dag (2017) insists that the "learner lives in a networked reality that affects learning at the individual as well as the organizational level and consequently collective learning" (p. 301). Therefore, a successful educational e-leadership at a university level may involve creating a context for learners and university members to create a powerful network to ensure quality learning. Lack of attention to this aspect has led to the contrasting isolation that many students

and employees feel in online HEIs. It is important for educational e-leaders to ensure a connected

and collective learning environment. This definition is expanded to the personal sense of feeling

connected and sense of belonging as well (Ersoy & Kumtepe, 2021). Yu et al. (2010) have

shown that virtual networking has a direct impact on learning. This aspect of connectivist e-

leadership may be in direct opposition with traditional leadership models in which the leader is

out of touch and distant in a hierarchy. However, e-leaders are encouraged to be open and to

share power (Li, 2010; Akcil, 2017).

Connectivism can also add to leadership practices by shedding a new spotlight on

diversity. Diversity in connectivist e-leadership would be seen in terms of the different levels of

competence among the learners, the various levels of self-motivation, and acceptance of others

(Natt och Dag, 2017). Siemens had previously written about a diversity of opinions as a building

block of knowledge (2006). Various scholars have noted that the quality of connectivist

education is determined by the diversity, connectedness, and acceptance of others (Corbett &

Spinello, 2020; Jung, 2019; Nat och Tag, 2017; Nussbaum-Beach, 2013). Selwyn (2016) notes

that the current state on higher education is that online education seems to be designed for highly

self-motivated learners and thereby excluding others from the system (Alqahtani & Rajkhan,

2020; It is for educational e-leaders to create a suitable context that allows all types of students to

potentially thrive by firstly understanding such differences among learners and secondly

considering them in their important decisions.

In terms of research on e-leadership, Corbett et al. (2018) have shown that the leadership

literature had steadily increased until 2015 and has been decreasing since then. On the other

hand, they have shown that "collective leadership" has been on the rise and has shown qualities

of "efficiency, connectivism learning, open communication, increased engagement, distributed

knowledge, and collaboration" (Corbett et al., 2018, pp. 1-15), which allows for "flow of ideas"

in the decision-making process through the team (Garica, 2015, p. 37). This flow happens

because connectivism sees leadership as "a process of developing a knowledge network and

making connections to create collective influence" (Corbett & Spinello, 2020, p. 7). Based on

this definition, the relationship among the leader-follower can be redefined to lower the

importance of power and authority and create a networked, distributed, and connected

leadership.

Siemens (2017) also mention that since "complete knowledge cannot exist in the mind of

one person..., diverse teams of varying viewpoints are a critical structure for completely

exploring ideas" (Siemens, 2017, Implications). This definition changes the view on the

responsibility of middle management, administrators, and even professors in HEIs and their

leverage in the general decision-making process of a university.

Supporting this premise is a similar model of leadership that allows for leaders who have

an eye on social networks and information systems but are not always in charge (Akcil, 2017; Li,

2010). Open leadership allows for tech savvy leaders who are transparent in the decision making

and create trust and shared responsibility in their educational organization (Akcil, 2017; Li

2010).

In summary, educational e-leadership seems to be less explored compared to e-learning.

Various terminologies have been used to describe e-leadership which has made the job of

building on other researchers' work difficult. In addition, considering the similarities that

educational e-leadership and e-leadership share, it seems that educational e-leadership can

benefit from some of the discussions of the topic. For example, research on e-environment and

trust shows how to improve the outcomes of online work. It may be suggested that there is a

need for an underlying philosophy and quality management in educational e-leadership may need

to be redefined to add criteria other than tech acceptance to the discourse. Finally, it may be

suggested that educational e-leadership can benefit by being informed by pedagogical

considerations, particularly for online learning. After outlining the methodology in the next

chapter, the topics above will be discussed further in chapter four.

CHAPTER THREE
Methodology

In this chapter, the methodology of this literature review and the reasons why a literature review was chosen are outlined, including how the search parameters were chosen and how the synthesis process took place, along with other relevant methodological considerations.

Educational e-leadership, as a field of study, is growing and developing at a fast speed. Moreover, the COVID-19 pandemic expanded this field by forcing many universities and educational organizations to join online platforms. The wide range of available research on educational e-leadership remains fragmented (Cortellazzo et al., 2019). Firstly, there is a tendency to sever leadership from other aspects of education. Secondly, the ability of each scholar to use their own terminology for the narrowed down type of educational e-leadership has led to largely micro rather than macro approaches to the topic. The micro approaches to research, in and of itself, is not a problem as it creates a deep understanding of the topic, but in turn it has prevented scholars from being able to build upon each other's work. In this milieu, having a literature review seems necessary to find where the field of research is headed and to create a unifying understanding of the advances in this field.

What is literature review?

The first form of literature review was developed by social sciences (Davis et al., 2014). It is usually "domain-based, theory-based, and method-based" (Paul & Criado, 2020, p. 2) and is described "as a more or less systematic way of collecting, synthesizing" (Snyder, 2019, p 1), or evaluating the existing body of research or a "substantive domain" (Palmatier et al., 2018, p. 1). A literature review is more than a description of previous advances and developments in a field, it is written to make connections and draw conclusions that are important both in academia, policy, and practice of a discipline (Davis et al., 2014). In fact, Barczak (2017) warns against

merely descriptive literature reviews as the ones that have academic value only for a short period of time due to how some scholars avoid critiquing the existing literature. A literature review can add value to a field by measuring the direction of a population of studies, evaluating the methods of previous studies, and finding the gaps, inconsistencies, and ambiguities and resolving them (Davis et al., 2014; Palmatier et al., 2018). It can also outline the scope of a topic and create a conceptual framework for the topic to understand the current state of a field (Davis et al., 2014; Palmatier et al., 2018).

Usually, literature reviews cover topics that are dynamic and growing quickly and sometimes have not been covered by other literature reviews or disciplines that may show a lack of accordance between theory and practice. A literature review comparing the papers from both sides may shine a new light on the topic (Torraco, 2016). According to Cooper (1988), the organization of a literature review paper can be historical, conceptual, or methodological. Cooper (1988) introduces four foci for a literature review, including methodology, research outcomes, theories, and practice. This paper focuses on research outcomes of the previously published papers in the area of educational e-leadership.

The main different types of literature review consist of systematic review, metanalysis, and scoping review. These subcategories synthesize many other pieces of a study together, while meta-analysis uses software to quantify the themes used across these works and reach a conclusion (Paul & Criado, 2020). Sometimes, a literature review can also mix the metanalytic with the narrative or other qualitative methods to mix quantitative-qualitative methods (Palmatier et al., 2018). If a topic is emergent, a literature review can lead to defining terminology, creating a model or foundational basis of a topic. However, if the topic is in maturing stages, a literature review can lead to reconceptualization, redefining, critique, or creating a new perspective

(Torraco, 2005; Whetten, 1989). A literature review can be strong in creating foundational

knowledge if conducted correctly, and it provides a unique opportunity to bridge disparity among

other studies by the use of empirical evidence (Paul & Criado, 2020; Snyder, 2019).. Although

Palmatier et al (2018) allude to the lower level of academic respect for literature reviews, they

also point to the wide range of citations that this kind of paper receives immediately after being

published and conclude that this proves the usefulness of such papers. According to Oh and Chua

(2018), "this method provides transparency with respect to research questions, the methods of

identification of sources, data collection and data analysis" (p 6).

Torraco (2005) warns against choosing a topic that is too narrowed-down to write a

literature review. According to Torraco (2016) for a literature review to show discrepancies

between literature and real practice, research or theory and real life, and to be able to find gaps in

research, the topic of a literature review needs to be more inclusive than other methods of

research.

Research Objective and Question

Educational e-leadership is a concept that needs to be defined based on a solid conceptual

framework. Since e-leadership was first used in business leadership literature, educational

scholars may have avoided the term based on the public as opposed to the private interests of

education (Avolio 2001, Selwyn, 2016). This has deprived educational leadership literature from

some of the findings of e-leadership. As a result, various terminologies were used in an attempt

to start defining the concept from the beginning. This has created a divergence in the studies

around educational e-leadership. The aim of the study is to synthesize and review the literature

around educational e-leadership to gain a unified understanding of the concept to answer the

following research question: *To what extent has educational e-leadership been defined as a field of study?*

Study Design

The design of the study in a literature review aims to create the exact procedure to the extent that the result would be able to be replicated (Palmatier et al., 2018). The scoping study was written as a literature review and was designed to examine the scope, breadth, and nature of the pre-existing literature and synthesize the material around educational e-leadership (Arksey & O'Malley, 2005). The goal was to find research gaps and understand the reasons for the lack of unanimity in the use of terminology in the field of educational e-leadership. The process of writing this study involved (a) identifying the area of interest (b) narrowing down the topic to educational e-leadership (c) data extraction (d) synthesis, finding tensions and writing.

Search Strategy

Two systematic searches were conducted using ProQuest, ProQuest Dissertations & Theses, JSTOR, EBSCOhost, Education Research Complete and Google Scholar, and publications such as Emerald and EBSCO Host to find the literature on educational e-leadership and quality control in e-leadership and e-social environment. The first engine search was done in September 2022. Many of the references were later in the reference lists of the primary results of the search. According to Paul and Criado (2020) there are two ways to find the population of research works for a literature review. Keywords chosen by the authors of a potential article are generally found directly in the title, abstract, or list of keywords and these keywords can also be found in the full text of the article (p. 2). Considering that this study bridges the intersection of leadership, education, and technology, both methods were used to ensure that the most relevant studies were used.

Various combinations of the following search terms were used to find the results. The search terms included "e-leadership," "Educational e-leadership," "educational leadership" "digital leadership," "advanced digital leadership," "digital education leadership," "online management," "leadership for online instructional design," "distant educational leadership" and/ or "online technology," "educational technology," "emergent leadership," "EMIS," "universities," "higher education institutions," and "higher education."

A second search was conducted in December 2022 to add some of the newer publications, which were being published in the aftermath of the COVID-19 epidemic. Other than papers that were pivotal in the background of the field, some of the papers prior to 2010 were removed from the search since they were outdated, reflecting viewpoints from eras prior to e-leadership having been fully established. Also, any results with the focus on K-12, were also omitted, since the public education system principles have a separate set of key terms, context of work and often viewed educational e-leadership as a temporary measure during the COVID-19 pandemic. The papers were selected using a staged review, which is the process of examining the abstracts before moving on to the body of each paper (Torraco, 2016).

Educational e-leadership developed later than e-leadership. However, during the last four years before the pandemic, there were more than twice as many papers published on the former than the ladder (Oh & Chua, 2018).

Table 1

Inclusion and Exclusion of Data

Total Before Exclusion of Papers	237
Total Number of Papers	151
Number of Books	4
Number of Conference Presentations	2
Number of Peer Reviewed Papers	141
Lecture Notes	1
Dissertations	2
Papers Focusing on E-leadership	80
Papers Focusing on Educational E-leadership	61

Note. This table shows the number of papers included in the literature review based on the two
contexts of e-leadership and educational e-leadership and categorizes the number of
papers, books, and dissertations used.

Inclusion and Exclusion Criteria

Inclusion

Papers were read completely, and not merely the abstract, to be able to separate papers
that met the following parameters:

- Peer reviewed papers published after 2010, available in English
- Papers with a major focus on e-leadership, the use of technology in educational
  leadership, quality control in e-leadership and the formation of the field of e-leadership
- Papers that aimed to create a theory in educational e-leadership
- Papers that analyzed current practices of educational e-leadership

- Papers that focused on leadership and technology but used other terminology, such as digital leadership to create a comprehensive understanding of the terms used

Exclusion

- Papers that analyzed e-leadership out of the context of education
- Papers that were written in educational systems that could potentially be too different from North American standards
- Papers focusing on public education systems (K-12)
- Papers that were published about the practice of educational e-leadership before 2000, with the exception of the papers that held foundational theory

Literature Summary and Synthesis

The literature was categorized according to year of publication and the context of education and/or the general business context of e-leadership. The data was also categorized based on qualitative and quantitative approaches or mixed method approaches. In this stage, the lack of quantitative data in educational e-leadership hindered comparisons between the fields. In terms of papers chosen for a literature review, the population of considered papers can be exhaustive, exhaustive with selective citation, representative, central, or pivotal (Cooper, 1988). This paper can be described as representative. The reason this method was chosen is the vast number of papers mention the same idea. In these cases, the intention was to choose papers with the highest number of citations, in addition to newly published papers that reflect the newest state of the field. This study has used historical-conceptual organization, by largely organizing papers based on conceptualizations and using historical organization in the background section.

According to Hunter and Schmidt (1990), one of the five methods of synthesizing other research papers is creating an alternative model or conceptual framework. Thu, themes were chosen by creating connections and comparing the papers in a "cross-article analysis" (Szeto et

al., 2015). A synthesis does not necessarily have to create a remodeling of ideas but can "piece the evidence together for a cautious conclusion and find the implications of the topic" (Pan, 2013, p. 2 as cited in Torraco, 2016). Additionally, creating mind maps to relate the concepts together was the starting point for the synthesis and critique, while at the same time funneling the wide range of key concepts based on repetition, importance assigned to them by pivotal papers, and constant comparison with the research question. By providing visual representations for main concepts, concept maps help illustrate the structure of the topic for the reader, from the viewpoint of the researcher (Torraco, 2016).

The emerging pattern showed that in the spirit of innovation that is linked to educational technology and the liberty that a new field of research may provide, many scholars have chosen to introduce their own terminology when addressing educational e-leadership. This hinders the process of categorizing to some extent and boldens the importance of understanding the nuances of each type and aspect of leadership, while hindering any generalization in making conclusions about the topic.

CHAPTER FOUR
Findings

In reviewing the literature about educational e-leadership, key theoretical and conceptual areas were explored. They are knowledge about topics that may be imported from e-leadership into educational leadership or need to be created to have a comprehensive theoretical framework for the topic of educational e-leadership. The five areas are quality management; resolving power asymmetry; e-social environment; skills for educational e-leaders, including trust; and finally, and perhaps most importantly, philosophy of educational e-leadership. Each of these are described in this chapter below.

According to Torraco (2017), critical analysis of other scholarly works on a topic shows areas where knowledge needs to be created. Upon review, it seems that the literature that covers the topic of educational e-leadership can be divided into two areas— smaller empirical studies and literature reviews. Interestingly, none of literature reviews included seemed redundant; the reason being that educational e-leadership has a connection with every other aspect of higher education, and as a result each review paper seems to endeavor to piece together some of the knowledge around the topic.

In the start of the literature on educational e-leadership, the most recurrent keyword is undeniably "change." Avolio (2001) developed the definition of e-leadership in the first place because he had observed the change that was occurring in the context of leadership in organizations. Many studies that followed endeavored to define the new status and describe the new state of how e-leadership was being conducted. In this era, e-leadership is sometimes idealized as working in an online platform that can solve educational problems (Selwyn, 2016). However, later studies started to address the issues as well as the advantages more realistically. It can be projected that future studies would tend to write how to tackle challenges and build

towards a more mature practice of educational e-leadership. One of the aspects that needs to be fully explored due to the changes based on technology is models of quality management in educational e-leadership. The advances in e-leadership may be helpful for educational e-leadership scholars.

Models of Quality Management in Educational e-Leadership

In educational e-leadership literature, there is a strong emphasis on quality management. (Bendermacher et al., 2020; Bravo, 2022; Shawyn, 2021). In fact, the effectiveness of e-leadership has also been discussed with the term Quality Management (QM) for Educational Management Information Systems (EMIS) (Bravo, 2022). Even before the steep changing curve that the COVID-19 pandemic has caused in the education system, quality control is coming back to the center of attention in leadership research (Jelić & Kedžo, 2018). Sometimes, the greater focus of efficiency has meant that quality can be easily overlooked in online platforms (Cortellazzo et al., 2019) as even governments around the globe are emphasizing quality management in the HEIs to suit the needs of current society (Duque, 2020; Tsiligiris & Hill, 2021).

Based on Giddens' structuration theory, the Adaptive Structuration Theory (AST) was later developed in 1990 based on the notion that "co-evolution of agents and technology" is needed to gain a clear view of "organizational development" (Jones & Karsten, 2008, pp. 134,136). Later, the United Theory of Acceptance and Use of Technology (UTAUT), Technology Acceptance model (TAM), and other models were developed to assess the level of adaptability with education in different fields. Each of these models have been more successful in assessing various fields. For example, TAM has been less successful in assessing technology acceptance among teachers, while UTAUT has been chosen repeatedly to assess administrators

and educational leaders (Scherer, 2018). The opposite of technological acceptance is usually

defined as technological resistance, which is traced in the culture of an organization. Torre and

Sarti (2020) were able to find that more often this resistance can be traced to one employee, who

has a high social effect factor and therefore may be a formal or informal e-leader in moderately

sized organizations. These models can be adapted to HEIs so that that they analyze performance

and decision-making, as well as acceptance and use of technology by leaders. The advances of

Torre and Sarti (2022), for example, in creating four categories of e-leaders shows how far

educational e-leadership can benefit from advances of e-leadership. According to Bravo et al.

(2022), QM is defined as the "permanent and systematic effort of an organization to improve its

quality standards" (p. 130). Although each institution is said to be responsible for their own

quality (Cardoso et al., 2017), many institutions gain a level of acceptance by the process of

accreditation. Through this process, a group of experts are responsible to check if HEIs comply

"with a set of standards defined, reviewed, and critically evaluated" to avoid becoming what

Bravo calls "dubious institutions" (Kumar et al., 2020 as cited in Bravo, 2022, p. 130).

Eventually, e-Leadership will need to consider the input from all the involved stakeholders to

gain the best result (Ulewicz, 2017).

One criticism about the current state of quality management in HEIs is that in many cases

it is simply another form of digital bureaucracy rather than effective quality assurance (Cardoso

et al., 2019). It also seems that to access the quality of technology interface, many scholars have

focused on the sheer use of technology i.e., technology acceptance (Markova, 2014).

Educators know that accepting or simply using technology does not necessarily translate

to positive results or quality. It can be suggested that there is a need for a series of outcomes and

measures to be defined and assessed for the use of AITs in HEIs. In the following section, the

models that have been defined so far will be analyzed. In addition, the higher in the scalar chain

a person's position is at a university, the less amount on use of EMIS they have (Danaiata et al.,

2018).

In order to assess the quality of an HEI, EMIS (Educational Management Information

Systems) integration or basically technology acceptance is considered a key factor (Bravo, 2020;

Venkatesh, 2003). EMIS needs to have certain qualities, including being in line with criteria of

the quality management system and recording and showing relevant data for analysis later

(Bravo, 2022). The access of managers to EMIS and the data that is produced by it can determine

the effectiveness of the EMIS. This is while the acceptance of EMIS is normally determined by

the UTAUT model, which will be discussed later. In addition, QM has a great emphasis on

transparency of leaders and managers (Kalokora & Lekule, 2019).

Towards Resolving Power Asymmetry

The theory of educational e-leadership describes the educational e-leader as highly

competent in technology use with a high level of understanding and a leader in creating strategy

for choices, effectiveness and conduct in the use of technology, and someone who can create

goals and conduct of HEIs in the context of technology. For example, some scholars call for a

widening of educational leadership in the context of e-leadership to include the process and

strategies that go into choosing and supporting ICTs to bridge the concepts of educational

leadership with technology and educational technology (Van Wart et al., 2017). It is noteworthy

that there are HEIs that have delved into tweaking the structure of their programs to better match

the urgency of online contexts, such as the competency-based programs (Weingarten, 2021).

In that light, Bravo (2022) has shown that the highest sector of technology users in higher

education institutes are older male leaders with the least level of familiarity with technology and

highest level of social influence. The implication can be that these leaders became part of the body of an organization at a time when e-leadership was not a need. As a result, in educational e-leadership practice, it has become normal to consider educational leaders and the ICT department two separate entities, with one being the highest level of social influence and the other merely as an operating entity. Bravo's study shows, on the other hand, the operators (who are usually younger female administrators) have the highest level of technology acceptance and use, yetsuffer from the lowest level of social influence in higher education organizations. This "power asymmetry" (Jameson, 2022) echoes Laurillard's (2008) warning a decade ago that the leading members of HEIs with power do not possess the competency required for e-leadership, and members with tech competency do not have enough power.

In the contemporary educational setting, it is granted that educational leaders are not expected to be heroes anymore. They cannot be expected to have educational leadership experience, knowledge, social influence, and be expected to be the forerunners of technological competence in HEIs. The discourse about moving as a technology-forward organization today is focused on creating a team with trust that includes enough space to learn, improve, change, and function together in a trusting environment (Abbu et al., 2020: Li, 2010.). Decentralization in higher education may be easier to implement at the level of task allocation, but when it comes to strategizing, there may still be a central leadership team that does not include various stakeholders.

Open leadership styles allow for leaders to share the responsibility of decision making and thereby have resolved the power asymmetry of traditional hero-leaders (Li, 2010). The difference between open leadership and distributed leadership is that in distributed leadership the shared authority is discretionary, while in open leadership the voices of stakeholders are heard,

and the decision-making process is transparent (Jameson, 2009). Although distributed leadership

has more currency (Jameson, 2009), some of the notions of open leadership are more suited to

the online context. In harmony with the open access universities that call for open access to

knowledge, Dewey (2019) calls for open leadership or collaborative leadership where the

stakeholders share the power to strategize and make decisions in HEIs. She describes how the

goal of open leadership "mitigates against the domination of strong, ego-driven individuals who

are focused more on their own role rather than on reaching the group's goals" (Dewey, 2019, p.

359). Liu et al. (2018) had mentioned that without trust and presence, AITs are mere tools to

impose authority. To move away from power imposition and into open leadership, means that

leaders would have the opportunity to strategize in new ways because they are not surrounded by

the "the same circle of input" or what Dewey calls a "club-like environment with no

transparency of decision-making and excluding and marginalizing stakeholders from the process

of strategizing in HIEs with the alibi of 'confidentiality' " (Dewey, 2019, pp. 360-362).

Therefore, it is not competency in technology, but it is the open style to strategize that can move

an HEI successfully towards the after-pandemic era in a more developed manner. This notion

echoes Kane et al., (2015) focus on asserting that "Strategy, not technology, drives digital

transformation."

   In addition, it would be a loss to build the concept of e-trust from scratch in higher

education teams and leave aside the developments of this concept that already exist in e-

leadership literature outside the context of education. Trust and the e-environment are later

discussed in more detail in this chapter. There is a need to combine multiple strong concepts to

build an effective leadership (Msila, 2021). Likewise, there are many divergent discourses on

educational leadership in the context of technology and studies with a limited scope of e-

leadership or education or other limited key words that may not allow for scholars to resolve the discrepancies and converge these studies that have already addressed many of these matters in niche topics. Therefore, there may be benefit in uniting the findings in topics of e-leadership, transformational leadership in HEIs s that have not matured with concepts of digital leadership and open leadership in more matured and developed HEIs.

E-Social Environment

An aspect of e-leadership that is often talked about is setting the tone and leading the e-social environment. Educational studies may be able to pay more attention to this topic which can be beneficial in educational e-leadership. An e-social environment is defined as "creating a positive work atmosphere with a sense of connectedness with the group to increase communication and collaboration through digital communication methods" (Contreras et al., 2020, p. 6). Considering that Roman et al. (2019) only see e-leadership as a collection of competencies including "e-communication, e-social skills, e-change skills, e-team skills, e-tech savvy, and e-trustworthiness," it is normal for the e-social environment to be the second most important aspect of e-leadership (pp. 853-854). The e-social environment also affects the culture of HEIs and "there seems to be strong ties between culture and quality" (Bravo, 2022). In fact, in a study among 4,800 management professionals, El Sawy et al. (2020) found that managers consider strategy, culture, and talent development more important than technology issues. It seems important to conduct studies to find information about the priorities of educational e-leaders and to analyze decision-making processes. The result of such studies can be put in the four categories created by Torre and Sarti (2022) to find the level of development of the practice of educational e-leadership in various HEIs.

In an e-social environment, e-leadership is more flexible and shows less direct supervision (Pulley & Sessa, 2001; Tietze & Musson, 2005; Wojcak et al., 2016). As a result, the e-environment may be able to reduce stress for employees with less immediate supervision that leads to a less formal environment (Contreras et al., 2020). Previously, it was mentioned by Avolio et al. (2014) that a quality of this environment is that it allows the employees to have their own work rhythm. As Selwyn (2016) noted, e-learning is primarily designed for self-motivated students. Similarly, Contreras et al. (2020) conclude that e-environments are suitable for employees with superior time management and organizational skills. This, in turn, affects the choice of educational leaders in creating and leading their online teams. E-environments can thus create both advantages and pitfalls for the employees.

Other than the influences of formal leaders, Contreras et al. (2020) argue that in e-environment the influence of informal e-leaders is less tangible. Informal e-leaders are the employees without any formal power but have an important role in creating support and gaining leverage for decisions. These scholars insist that instead of showing authority, effective e-leaders need to create a presence and trust between leadership and team members and to meet the social-emotional needs of their members (Contreras et al., 2020). These are qualities of e-leadership that Liu et al. (2019) warn that if not met, would make AITs a tool to impose authority. Building trust is also important since many e-leaders insisted they feel less trust in the e-environment without being able to see and feel the responses of teaching staff firsthand (Mustajab et al., 2020). Trust building increases the performance of teachers and the level of motivation and productivity in an educational organization (Mustajab, 2020). It seems that with more development of e-organizations, research is moving on from matters related to technology acceptance as it becomes normalized. As a result, creating trust with the goal to increase the

effectiveness of a team seems to be where the discourse around e-leadership is headed. Trust can help team building to reduce the amount of isolation of team members in the online environment.

Isolation

One of the reasons that conversations and research around e-social environment can benefit educational e-leadership is that it can tackle the isolation caused by digital communication. Isolation is considered one of the disadvantages of online environments if not tackled properly. It can create challenges not only for e-learning, but also for the online team performance among the faculty, lack of active participation of employees, lack of "information sharing and co-learning," lack of support for problem-solving, and lack of face-to-face opportunities for networking and demotivation (Wojcak et al., 2016; Wu et al., 2022, pp. 11-12). Golden et al. (2008) showed that the "professional isolation adversely affects job performance" (p, 1,413), concluding that extreme conditions of isolation cause high levels of turnover. However, Walther and Bazarova (2008) note that e-social characteristics of e-leadership can prevent the sense of isolation among members of a faculty. In fact, Bently (2014) mentions that remote working is only satisfactory in case there is enough support from leadership and colleagues for employees. The previous models of clinical professionalism may need to be adjusted by e-leaders to create the e-social environment needed for the best results. Considering the arguments around exhaustion caused by online work as opposed to the advantages of not commuting and the in-person opportunities for networked learning or support from leadership and other employees, the best balance has yet to have been found (Bosua et al., 2017).

E-ethics

One of the defining features of e-leaders in the e-environment is implementation of e-ethics (Garcia, 2015). E-leaders work with global citizens and therefore, it is important for e-

leaders to implement rules of diversity and inclusiveness. In higher education, most of the body

of work on e-ethics includes the nuances of ethics in digital research and ethics committees. The

e-ethics in e-environment relate to many ethical theories, such as "theory Y, Kantian ethics,

motivation and trust, communitarian ethics, ethic of care and egalitarianism; Stakeholder Theory;

and the use of political tactics" (Lee, 2021, p. 456). Thus, the lack of attention to e-ethics has led

to a call for mental health well-being among academics (Hurd & Singh, 2021). Some of the

challenges in online HEIs have been described through the term Lecture Capture, as "both the

investments into digital modes of delivery and dissemination and in tandem the numerous

challenges (structural, pedagogic, legal and ethical) that face the sector today through the

increasing incorporation of technologies into everyday teaching practices, policy and delivery"

resulting in overwork, surveillance, employment security, legal rights, data protection conflicts,

performance rights, accessibility (Ibrahim et al., 2021, p 144).

One of the opportunities that online organizations offer is that the geographical domain of

leaders has expanded, which in turn creates more and more need for e-leaders (Darics, 2020). In

these cases, matters of ethics are mixed with diverse discussions. Due to a lack of preparation on

the part of e-leaders, remote work and having culturally diverse team members can hinder team

building and lower the commitment to shared goals (Fedakova & Ištonová, 2017). Eventually

that leads to lower job performance and demotivation (Schwarzmüller et al., 2018).

Competencies, Skills and Approaches for E-leaders

E-technological skills are another important aspect of e-leadership. These skills are

related to the e-changes or the important changes that an e-leader needs to make in the e-

environment. Technology has made such great changes in the educational system that instead of

e-leadership, these changes have often been handled with transformational leadership styles. Roman et al. (2019) emphasize the importance of having e-leaders who are hands on with the technological advances and constant updates of the industry as opposed to having a leadership team and handing the technology solely to an ICT department. E-transformational leadership has also been widely used in literature to describe the capacity to innovate online HEIs. Schwarzmüller et al. (2018) also note the need for e-leaders who are quick to find the need to change and implement it while promoting that change among the members while warning that these changes should not disturb the focus of an organization. Therefore, change for e-leaders is the balance between innovation while keeping the sense constancy among the team members (Cortellazzo et al., 2019).

Numerous scholars assert that e-leadership mainly consists of a set of competencies (MC Leod & Richardson, 2015; Torre & Sarti, 2020; Van Wart, 2019). These topics include tech integration, staff development, policy, ICTs, digital divide, ethics, vision, standards, data driven decision-making, reservice preparation, and management operations (MC Leod & Richardson, 2015). In fact, sustaining an e-team may be even more challenging than initiating one or conducting a project (Orgen, 2016). Orgen et al. (2019) have concluded that lack of training, competency, and awareness about the needed competencies needed for e-leaders can affect students negatively. Yet, the literature from 2000 to 2010 maintains that communication skills were among the most important skills for e-leaders. Alward and Phelps (2019) note the primary indicator of success is the cadence of online meetings. In addition, the literature has moved on from the view and imagines a different set of competencies for online educational organizations, asserting that e-leaders are not heroes and cannot be expected to acquire such a long list of skills in addition to basic leadership skills (Jameson, 2022). Instead, in a study of the dynamics

between the leaders and followers it was found that a lack of correct and coherent e-leadership, will increasingly lead to omitting any in-person interaction which will in turn cause behaviors, such as shyness, belligerence, inactiveness, rebelliousness, and being withdrawn (Jameson et al., 2022). Two of the important concepts developed in e-leadership that can help build an effective e-social environment are trust and attention to grapevines.

Trust

Trust is the topic that e-leadership studies have been developing in the past decade (Savolainen, 2013). The reason that this topic is enjoying high praise can be traced to the COVID-19 period and isolation, burn-out, and dejectedness that followed that period in online professional teams (Contreras, et al., 2020). Trust is a concept that is more established outside of online educational contexts. There is a need for both exchange of knowledge between the fields and creation of empirical and theoretical knowledge about it in the context of education. That being said, the great emphasis being laid on e-trust may lead some to disillusionment. Much in the same way that online education was not a solution for all educational problems (Selwyn, 2016), trust building cannot be a solution but a great skill for teams including both leaders and followers. It seems that the building block of a functioning team is the trust in the online environment. Trust, in nature is "temporal and fragile" (Garcia, 2020).

Trust needs to be viewed as a state that is achieved as a result of the transactions between the leader and the followers (Jameson, 2022, 2009). Defining three sub-concepts for trust as: accountabilities, getting to know the employees, and having clear expectations, Alward and Phelps (2019) showed how creating informal communication is key in creating trust. It seems that by practicing invisible power or being hands-off , which is part of delegative styles, open leadership, and distributed leadership, leaders can foster innovation and grassroot-level change

as an alternative to imposing change from above which comes from the debunked notion of the

hero-leader (Jameson, 2009), which the e-leader is viewed as a hero who is the pioneer of change

and has to impose change from above. Regarding delegation, openness, creating context for

organization-wide levels of growth and trust are criteria in line with Bravo's (2022) empirical

research that showed the operators have the highest grasp and technology acceptance, and they

only suffered from lack of social influence for the decision-making processes.

Effects on the Grapevine and Unofficial Sources of Information

In the process of leading the e-social environment, considering the effects on grapevine

and unofficial sources of information is important. These can be considered as areas of

knowledge that need to be researched in educational e-leadership.

The use of technology has inevitably affected the culture of organizations and by

extension, the grapevine, referred to as the unofficial web of communication. Previously,

grapevines played a key role in the flow of information in an organization, while e-leadership

theory has not officially considered a replacement for the accidental encounters that can lead to a

sense of rapport and trust (Seitz, 2022). It can be concluded that a sense of rapport is harder to

achieve organically in e-organizations and e-leadership needs to discuss the strategies to

reintroduce the grapevines into their culture. The grapevines allow strong e-teams to form and

create better collaboration among the team members (Torre & Sarti, 2020). Alward and Phelps

(2019) mentioned that trust in online organizations has a more transient nature. It can be

concluded that because grapevines are gone, e-trust lacks the foundational sense that leaders and

followers know each other. On the other hand, the in-person and organically shaped grapevines

could be exclusive to certain members of the educational organization. However, in online HEIs,

open leadership calls for transparency of information among all members. Thus, e-leadership can potentially offer a chance for inclusivity among the members of HEIs.

In online education environments where students never physically meet each other or spend extended amounts of time together, collaborative research and collaborative learning is harder to achieve. However, often, universities avoid allowing online contact between students in the same year and previous years, due to a fear of the organic flow of information among students. Topics such as getting to know professors, course requirements, type of used education technology, timing and expectation for research projects, or implied expectations for grants and scholarships are some of the examples of the type of information that is usually organically distributed among students. However, this flow of information needs leadership and management. In some cases, out of the fear of misinformation, misrepresentation, and negative reputation, educational e-leaders may decide to completely avoid touching such areas. The same issue becomes important when deciding how much information and syllabus to share about a course prior to course registration. In this complex decision of sharing a syllabus, the effort of professors is in danger of being copied. However, by not sharing enough information about a course, students often find themselves in a blind choice and are often left to choose courses based on a course name and a short description of the topic. Students are left to do personal research to find a professor's teaching techniques, styles, and expectations prior to registration.

As educational e-leaders may fear the forming of any reputations around the professors, they may end up only relying on an official system that navigates the semi-blind registration process. This is, incidentally, what may lead to misrepresentation and misinformation. For this reason, developing methods to manage and lead the organic flow of information in a positive manner is important. These are the intricacies of e-HEIs that other organizations may not be

grappling with, and e-leadership literature currently has little to offer educational leaders in this regard.

New Perspectives of Educational e-Leadership

The perspective of education is missing from educational e-leadership possibly because educators have tried to guard education from technology in the mold of the Silicon Valley business mentality (Selvin, 2016). In this section, it will be argued that there is possibly a need for a new perspective or philosophy behind educational e-leadership that supports e-learning in terms of policy and allows for more flexibility in some aspects of the structure of universities (Garcia, 2015). If such philosophy is defined, it needs to consider the AITs, not as a tool to conduct the previous methods of learning in the online environment but to allow for an all-inclusive shake-up in the system to be reevaluated to progress with the needs of today's students, the needs of today's society for research, and the needs of the job market (Elkington, 2021). A good example for a structure and policy that has allowed change into HEIs can be the competency-based programs in the United States (Weingarten, 2021).

A new perspective of educational e-leadership can allow for more stakeholders to have decision-making power. The importance of that is shown by Alexander et al. (2019) who show that all strategic leadership decisions in higher education are intertwined with students, faculty, operators, admins, student affairs, IT, deans and provosts, or basically all stakeholders. The strategy of a university depends on both leaders and followers and the dynamic between them is valuable in creating a philosophy of e-leadership (Jameson, 2022). Furthermore, with the resolution of power asymmetries, the boundaries between leaders and followers may be.

With what Selwyn (2016) calls the "traditional brick and mortar universities," e-leadership seems to have moved away from the clinical, logical, and bureaucratic approaches

(Jameson, 2009). These notions were the ones that had defined organizations as professional,

logical, and devoid of emotion. Recently, educational institutions have found a new respect for

mental health, personal connections, e-trust, and rapport, and this is part of the direction of

philosophy that is currently shaping the future of educational e-leadership in HEIs (Van Wart,

2019).

Finally, for educational e-leadership to have a well-rounded theoretical framework, it

might be necessary to have a supporting philosophy of education and an accompanying

philosophy of learning. These philosophies could create a beneficial link between the educational

and learning aspects of HEIs and the e-leadership aspects. It may be concluded that without these

philosophies, the difference between educational e-leadership and e-leadership is quite unclear.

In this chapter, the various terminology that scholars have used to refer to educational e-

leadership were mentioned and the importance of unifying the various theories around these

terminologies was emphasized. UTAUT, as the most developed model of quality management in

educational e-leadership was mentioned. It was discussed that adding criteria related to

pedagogy, e-social environment and competencies of an educational e-leader may help develop

UTAUT towards the needs of HEIs. Resolving the power asymmetry can help with the growth

and development of the HEI with regards to strategic technology use was discussed. In the next

chapter, there will be discussions and conclusions around the validity of educational e-leadership

and some important topics will be mentioned.

CHAPTER FIVE
Discussion and Conclusions

This study addressed the research question "to what extent has educational e-leadership created a valid basis and framework for the field?" In the process, a series of topics in the field of educational e-leadership were noted and addressed within the scope of a literature review. In this chapter, some of these findings will be discussed further to respond to the research question and conclusion for moving forward will be provided.

The Gap in the Research

Upon review, it seems that there are no specific studies that pursue the intricate differences between e-leadership and educational e-leadership. After considering the body of literature surrounding educational e-leadership, it seems that there is, in general, a negative connotation among educators in using ideas developed in the business world (Selwyn, 2016). This resistance may have led to educational researchers trying to create knowledge that has already been published and, to some level, tested (Cortellazzo et al., 2019). As a result, doing research that considers the difference between e-leadership and educational e-leadership may enable educational researchers to build on works of research that may be outside the context of higher education but still have valuable information to offer. It seems that the first difference that may appear is that a form of philosophy both in terms of leadership and in terms of learning may help build a stronger basis for educational e-leadership.

Philosophy and Pedagogy as Foundation for Educational e-Leadership

Educational e-leadership is currently minimally concerned with pedagogy, although this paper argues that it should be. This minimal concern has severed the research on leadership and the learning process, while the latter is supposed to be supporting the former (Yuting et al.,

2022). The reason for this can be traced to how e-learning developed earlier and more rapidly than educational e-leadership (Cordie & Lin, 2018). The result has been that the process of change in HEIs developed at grassroots level instead of an organization wide one (Puckett et al., 2022). Policies and governance, which are exclusively in the hands of educational e-leaders, remain more like how they were in the eras prior to implementation of AITs.

Siemens (2005) developed connectivism as a basis for e-learning with the potential for educational e-leadership practices. Even though connectivism proved to be a controversial theory of learning among educators a decade ago, it is still relatively new and remains to be tested practically. However, educators are gradually becoming more sympathetic towards its principles (Corbett & Spinello, 2020). If educational e-leadership is to be enriched by the principles of pedagogy, one of the biggest implications would be a different redesigning of programs that require educational e-leadership. For example, connectivism disrupts the authority of teachers and allows autonomy for learners (Siemens, 2005). Connectivism also means that knowledge is not created, transferred, or built but exists through a vast network of knowledge (Downs, 2007). As a result of these qualities, the role of the learner is not to memorize or understand everything but to make meaningful decisions. The implications are that the role and power of university professors, accreditation, method of class, design of assessment, and would have to be completely reimagined. It is easy to understand the backlash of educators towards such a disruptive phenomenon as much as it is easy to see how such a philosophy of learning can fit today's students' needs better than traditional methods. This is not to conclude that connectivism is the only philosophy of learning that can enrich educational e-leadership. Community learning, networked learning, and many other emerging pedagogies have a lot to offer higher education but cannot be implemented to the fullest in the current and traditional design of its systems.

There seems to be a need for a philosophical approach that supports successful educational e-leadership— a philosophy that supports the process of learning as well as the process of educational e-leadership. In chapter four, it was mentioned how the thought process of educators may be moving away from certain bureaucracies and cold logic of neo-classicism (Jameson, 2009). It was also discussed that educators may be creating distance with certain aspects of Romanticism that has caused educators to sever themselves from society and address its needs (Jameson, 2009). In the absence of these frameworks of thought, there is need for a structured theory of educational e-leadership that includes a philosophical basis. Nonetheless, the absence of a philosophy of learning and philosophy of thought for educational e-leadership has created flexibility for each organization to pursue various goals and respond to various needs. However, it can be argued that for sustainable growth and success a framework is needed, perhaps one that is less constrictive than the prior frameworks of thought and allows the rapid development of the field.

Competencies of Educational E-leaders

Empirical studies that previously established that e-leadership is a set of competencies also indicate that educational e-leaders need to be inclusive, open and transparent, able in communication and create trust, willing to share power, flexible, and technologically competent and strategic (e.g., Alward & Phelps, 2019; Aziz, 2021; Grobman, 2022; Roman et al., 2019; Van Wart et al., 2019). To face the challenges of educational e-leadership, some suggest that e-leaders need the skills to guide and direct the use of technology as opposed to only introducing them into a system (Cordie & Lin, 2018; Yuting et al., 2022). The most basic of these responsibilities is for not only e-leaders but all educators to constantly keep themselves up to date with the latest technology (Arnold & Sangrà, 2018).

Since change is the fuel that started the engine for e-leadership in the beginning, response to change can be considered the greatest competency that an organization can show. Torre and Sarti (2020) have created four typologies for e-leadership. They defined complete lack of e-leadership as instances where changes in ICT are only implemented if and when it is absolutely necessary (Torre & Sarti, 2020). Additionally, these non-e-leaders strongly prefer direct and visual relationships (Torre & Sarti, 2020). Innovative tools are used in such companies but there is no company-wide strategy defined for them. Eventually, these organizations view e-leadership not as something to be encouraged but as unavoidable (Torre & Sarti, 2020). Among Torre and Sarti's four typologies are the e-leaders who immediately connect e-leadership with the ICT department. The introduction of ICT is part of the responsibility of the tech department and by extension, this department would be entrusted with the task of making technology-based changes interesting. The main e-leader of such organizations resides in the ICT department as well. It remains to be studied to what extent e-leaders in higher education resemble these two typologies.

There is another dialect in education that drives the discourse away from assessing the competencies and strategies of e-leaders. This is the belief that educational e-leaders are not heroes and cannot be expected to have a long list of defined competencies (Jameson, 2022). These scholars believe in studying a dynamic between leaders and followers and that by creating flexibility, educational e-leaders can create the opportunity for grassroot level changes and allow educational e-leaders and followers to learn and grow together (Collinson, 2019; Jameson, 2022). While studying the dynamics of leaders and followers is valid, the issue with this approach is that the grassroot level changes do not allow for pedagogies such as connectivism which needs fundamental changes in the organization. This view on the dynamic between leaders

and followers also prevents educational e-leadership practices from being assessed and

evaluated.

Trust has the most momentum in the competency list of educational e-leaders. It is

intricate and wide-ranging since it is bound by team building discussions and ethics and rights to

online content and offers a rich area for future research. The importance of trust is emphasized

by Cordery et al., as a factor that clearly impacts the performance of members (2009). In older

models, such as UTAUT, despite the large number of factors considered, trust is not added as a

direct a factor that affects use and acceptance of technology. Since UTAUT is being constantly

updated, it can be a great research opportunity to factor trust building practices into the UTAUT

model for educational e-leaders.

The Lack of Cohesion in Terminology

To encourage and create enthusiasm for the disruptions and changes resulting from AITs,

technology was branded as innovative. An example of the implications of this trend can be seen

in the enthusiasm of scholars to be innovative with the terminology around e-leadership. More

than 12 terminologies were traced around this topic, each of which refers to the practice and

theory of leadership in an online context. While the many terminologies that are used in the field

of e-leadership may show some of the nuances of the practice of e-leadership, it has led to

fragmentation of knowledge (Cortellazzo et al., 2019). As it was argued in chapter two, this has

prevented scholars from building on each other's work. Therefore, most papers must start from

the fundamental definition of e-leadership. With educational research being more delicate with

the terminology, a notable set of terminologies are e-leadership versus digital leadership. The

latter is defined as a more mature version of the former (Jameson, 2022). However, upon review,

other scholars deem these terminologies to be "interchangeable" (Torre & Sarti, 2020). While the

former has been around since the early 2000s, the latter is relatively new (Torre & Sarti, 2020).

This study may not be able to convince all scholars to agree on using one unified term, nor

should they, however effort was made to find a complete list of all similar terms for future

research.

Models of Quality Management for Educational e-Leadership

A gap in knowledge is that educational e-leadership may need a framework that can be

used for evaluation of the practice of educational e-leadership. In the case of e-learning, these

skills or methods have been mapped out and the criteria to evaluate them have been created. It

was mentioned in chapter 2 that TAM has been widely used for evaluation of online teachers'

work in terms of technology (Scherer, 2018). However, there is limited research that uses TAM

for e-leaders or educational e-leaders asTAM only assesses acceptance of technology. It can be

concluded there may not have been enough criteria to assess the complexities of educational e-

leadership. UTAUT was another model that was discussed in the same chapter. A population of

higher education e-leaders remains to be studied based on UTUAT. This is not because UTAUT

is not fit for the purpose, but because generally, quantitative studies on educational e-leadership

have not been widely conducted.

Another example is Technological Pedagogical Content Knowledge (TPACK) which is a

framework that defines different kinds of knowledge domains teachers need to become proficient

in integrating digital technology in teaching and learning process (Scherer et al., 2018).

However, in educational e-leadership, this is still an emerging concept and many studies end up

suggesting at the end there is still need for more research on this topic (Contreras et al., 2020).

According to Adams et. al (2022), the scale of accessibility to ICT does not automatically guarantee having an effective application and considers this a "common challenge" that HEIs suffer from. It seems that in technologically developing HEIs, the change phase where HIEs endeavor to create tech acceptance and accessibility is of importance. In South America, East Asia, and some areas of Europe, knowledge around this topic is still developing. However, in technologically developed institutions, e-leadership's primary concern is team building, trust, and strategy towards tech related decisions (Abbu, 2022; Brown, 2016, Van Wart et al., 2019). In terms of educational e-leadership strategic decisions, there is a gap in knowledge. However, e-leadership and digital leadership studies have addressed this area outside the context of education (Kane et al., 2015). In this case there are risks for the future of the field of research and practice in educational e-leadership. Firstly, there is risk that educational scholars may have to build the material from scratch which is complicated considering they will have to basically be critical towards the very institutions that are funding their studies. Secondly, this scenario runs the risk of the loss of philosophy of education, public good, the effects of the Silicon Valley mentality in e-leadership, which would in turn reaffirm the fears of some educators towards achievements of e-leadership and keep the practice of educational e-leadership underdeveloped (Collinson 2019; Selwyn, 2016).

Limitations

Earlier, Jameson et al. (2020) noted that "functional rather than critical perspectives predominate" the body of research on e-leadership (p. 1). This may stem from the fact that doing research in HIEs and criticizing higher-ed organizations' e-leadership may not be a politically amicable decision, and thus many may naturally refrain from doing so. It is also worth remembering that, without a solid theory of educational e-leadership it has been hard to have a

critical look at a topic that is still defined at the beginning of almost all scholarly works that

discuss it. In this case, there is a great lack of accord between the theory and what empirical

studies are suggesting (Bravo, 2022; Jameson, 2022). It seems that the theory of e-leadership is

moving in two directions. Firstly, the abstract direction of how e-leadership should be, and

secondly, empirical research that shows the reality of the practice of educational e-leadership.

Resolving this discrepancy in practice remains in the hands of the educational leaders in HEIs to

make the move from educational leadership to educational e-leadership.

In a large scale, this lack of accord between theory and practice has previously existed in

all leadership studies as described by Winston and Patterson (2006). They stated that leadership

was defined originally under the social sciences that use reductionism to be able to understand

each concept, based only on the relationship with other concepts. This has, according to Winston

and Patterson (2006) helped us understand aspects of leadership but has not granted us a

wholistic view. Currently, in educational e-leadership, "one of the main weaknesses in the

studies of teleworking and e-leadership is their methodology, small samples are not

representative, and robust theoretical foundations are scarce" (Contreras et al., 2020, p. 9). The

propensity to narrow down research topics and base them on local areas if they are empirical,

probably along with the lack of large-scale studies that span through various geographies, higher-

ed organizations, and years, has created a discrepancy between what theory suggests and what

small empirical studies show (Cortellazo, 2019). One instance of a large-scale study, outside the

context of education, is an MIT collaboration with a population of more than 4,800 participants

in senior leadership positions in more than a hundred countries and 27 industries. This study

found that leaders are unprepared in terms of effective e-leadership (Jameson, 2022). The large

scale and population of such studies make their conclusions more grounded, and it would be a

great opportunity to re-explore these topics after the pandemic and recreate them within higher education for comparison.

Liu et al. (2020) and Cortellazzo et al. (2019) suggested that a theory of educational e-leadership, sharing approaches, and theorizing about this phenomenon is needed. Finally, among the many literature reviews written on e-leadership, none seemed redundant. The reason being that educational e-leadership has a dynamic with every aspect of higher education, and as a result, each review paper seems to endeavor to piece together some of the knowledge around the topic. There remains the need for further robust research in the spirit of Avolio's efforts to define e-leadership to set a solid and comprehensive framework of educational e-leadership.

Final Thoughts

This research study started with an effort to trace educational e-leadership literature and to define it holistically to find out the areas where it can benefit from the pre-existing basis of knowledge in non-educational fields. In this process, the effort was made to find out how comprehensive educational e-leadership really is. Five gaps of knowledge were introduced and criticism towards the methodology of already conducted research was mentioned. It was interesting to piece together what truly makes educational e-leadership educational or how it might be different from e-leadership. It was found in chapter two that there are various terminologies describing the same topic and the reverberations of that lack of unity were mentioned. The research from non-educational organizations offered a lot of insight where limitations of HEI's research prevented robust quantitative research. Quality management and setting criteria for success in educational e-leadership in HEIs are suggestions for further future research.

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