

## **Analysis of E-Leadership Practices in Ameliorating Learning Environment of Higher Education Institutions**

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### **Abstract**

Information and communication technologies have made a profound and deep impact on educational organizations, especially at higher level. Leaders are required to adopt ICT tools not only for their own competence but for meeting the demands of e-leadership and changing teaching-learning ecology. Current study aimed at examining and elucidating the practices involved in adoption and enrichment of e-leadership processes at higher education level through qualitative research approach. Research respondents included 50 employees in higher education level working under the domain of leadership. Semi-structured interviews helped to extract major themes and sub-themes under the framework of replacement, amplification and transformation of e-leadership practices. Findings revealed that e-leadership practices are currently at the replacement phase of ICT integration. Suggested model on the basis of research gaps illustrates that continuous training & development of e-leaders, leveraging technology affordance within institutions, keeping abreast with ongoing advances in ICT & incorporating them in teaching ecology may help in materializing transformational stage of ICT adoption in e-leadership practices.

**Keywords:** e-leadership practices, replacement, amplification, transformation

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## Introduction

Organizations are manifested with distinctive events occurring on daily basis. Organizational leadership has to take into account all the divergent perspectives of organizational processes if they seek to achieve organizational reframing. It can be deduced that organizational reframing is an art because leaders bring distinctive visions with them and produce master pieces according to their own wisdom, intuition, knowledge and skill (Deal et al, 2008).

The ultimate goal of organizations should be to become a 21<sup>st</sup> century organization having most satisfied and productive employees. For this purpose, the organization's characteristics have to be gradually replaced with interpersonal skills of leaders who get training to lead others in consultative manner towards the achievement of organizational goals with the help of information and communication technologies (Phillips, 2009). It is also observed that recognizing the management system of an organization helps in initiating staff development programs to overcome the transition phase of ICT adoption with ease. Experts indicate that when organizational reframing occurs from traditional to ICT laden management system, organizational performance improves as well as the health of the employees (Sadighi, 2003). Organizations have to take great care to make a slow transition towards ICT laden productive system but when the goal of organizational reframing is achieved, it goes a long way towards organizational performance and productivity (Wilson, 2010).

Robbins (1998) suggested that if organization is seen not as an "abstract concept" but a "construction", then it may be more fruitful and productive. Organizations mean valiantly to different group of people because everyone has their own, personal experience and thus constructs the meaning of organization in a unique manner. Keeping this reference in view, it is obvious that organization is an entity subject to continuous debates, arguments and change. Current researches on this topic emphasize that it is more valid to approach the meaning of e-organization through organizational characteristics such as e-leadership, e-communication system, motivation and decision making processes involved in adopting ICT for efficiency and effectiveness (Robbins & DeCenzo, 2008; Robbins, & Judge, 2012).

Organizational Leadership is a connected process of social influence in which leader directs, supports and assists the followers in achieving predetermined organizational targets. Organizational leader presents a vision and shares it with others for target accomplishment. Conger

(1992), states that leaders establish a direction for assigned group, gain their loyalty and commitment and then motivate group members toward the attainment of desired objectives. Leadership also emphasizes upon motivating people rather than completion of day to day organizational goals (Benis, 1989). But Katz and Kahn (1978) suggest that leadership becomes a kind of incremental influence to comply with day to day routine matters. Bass (1990) reflects that leadership is present in every member of the group because it is the process of modification of competencies and motivation towards goal achievement. Kouzes and Posner (1995) view that leadership is an act through which a leader mobilizes others to work for the achievement of shared aspirations and expectations.

Leaders need to interact with their subordinates for the accomplishment of pre-determined organizational tasks. For this purpose, leaders adopt varying styles ranging from autocratic to democratic style depending upon their own philosophy or the prevailing organizational culture (Iqbal, 2012). Relationship of leadership styles with organizational processes, performance and commitment has been studied intensively, and concluded that all these variables have strong positive correlations with each other (Manzoor, 2011; Mentop, 2011; Hoy & Miskel, 2012). In addition to this, certain leadership processes are predominately present in educational organizations such as employee motivation, organizational communication and decision making. These processes do effect or are affected by leadership styles (Ryan, LaVar & Jerlando, 2017).

Effective educational leadership processes are key to an institutions' success. Several research studies have shown a strong positive impact of motivation, communication, goal setting and decision making on higher productivity of educational institutions at higher level. These processes are considered key constants regardless of leadership contexts. Sathye (2014) states that leadership processes in higher education institutions are more complex and diverse as compared in other organizations. Such differences occur due to the fact that educational leaders are concerned with maximizing the stakeholders' values and expectations. Stakeholders of higher education institutions include students, faculty, and government at last but not the least public at large. And educational leaders have to take into consideration the aspirations of all stake holders. For this purpose, leadership processes need to be so dynamic to satisfy these stake holders up to the maximum (Del, 2005; Chege, 2010).

Information and communication technologies have made a profound and deep impact on educational organizations also. However, it is an

admitted fact that literature on leadership theory and ICT adoption have not been integrated well. Leaders are required to adopt ICT tools not only for their own competence but for meeting the demands of e-leadership also which is an emerging trend of 21<sup>st</sup> century. E-leadership has not been as much researched as the concepts of e-administration and e-governance. Traditional definition of e-leadership is just ICT mediated organizational communication, whereas it is a broader concept than this and includes comprehensive adoption of ICT tools for personal and organizational productivity and efficiency (Ryan, LaVar, & Jerlando, 2017).

## **Literature Review**

Educational leaders are facing extensive challenges in the era of ICT due to organizational culture and work place dynamics. A major challenge is that the staff/subordinates are dispersed away from their leaders physically. And as the leaders are busy with continuous schedule of official commitments and meetings, they are unable to focus and interact with their subordinates regularly (Albidewi, 2014; Mohd Yusri, 2014 & Schultz, 2010). To comprehend to this challenge, use of ICTs such as internet with computers, mobile/smart phones with new applications for monitoring and controlling several work place activities is on the increase by educational leaders. Similarly, teaching-learning processes are also becoming equipped with latest technologies to enhance effectiveness. As the educational institutions are becoming digitized in their services, operations and innovations so is the role of leadership becoming challenging. Educational leaders who are e-skilled can manage and lead their subordinates effectively (Aral, Brynjolfsson & Wu, 2012).

Jameson (2013) has defined e-leadership as a virtual relationship of influence. According to him, this innovative and adaptive field of knowledge has a deep effect on daily interactions and social networking across all the hierarchical levels within educational institutions. Fonstad (2013) advocates that e-leadership means technology-leadership integration which includes expertise in using ICT and expertise in leading the organization through these skills. Furthermore, Avolio et al, 2001 preponed Adaptive structuration theory by explaining how leadership and technology effect each other and ultimately e-leadership becomes dependant heavily on e-skills, e-knowledge and e-leadership expertise. But it is admitted fact that leadership-technology integration

may be difficult in complex organizations with multiple organizational structures (Evans, Ashbury, Hogue, Smith, & Pun, 2014).

An educational leader's intention to use ICT is influenced by awareness about a certain ICT tool, ability to evaluate its value and willingness to expend effort on adoption of that ICT tool at individual level for transformation purposes. In term of awareness, it is argued that ICT evolution at worldwide spectrum, leaders in educational institutions have to remain cognizant about latest ICT developments. A similar argument can also be constructed related to ability to evaluate it. It means that it is not sufficient for an educational leader to be knowledgeable about ICT tools for e-leadership practices but must be enabled to envision the potential benefits of using it for achieving organizational missions. Lastly, after willingness to adopt ICT and be able to amplify its usage, e-leaders need to maintain an authentic willingness to transform their skills by expending time and emerging ICT resources for the process (Van et al, 2017a & 2017b). This argument provides the base for extracting a working definition of e-leadership. Basically, all the leadership processes influenced by ICT fall in the domain of e-leadership. Furthermore, if a leader replaces, amplifies and transforms the leadership tasks with the help of technology, e-leadership emerges.

An extensive search related to research in e-leadership states that mostly the work has been done around e-skills of educational leaders and e-learning outcomes (Gomes, 2011), e-leadership styles and competencies (Tan, 2010), challenges and opportunities for e-leadership (Barwick & Back, 2007) and innovation in educational technology with reference to e-leadership (Bowen et al,2013). Scholars have the view that research on e-leadership in education is scarce. Especially the levels at which leadership is using ICT to formalize e-leadership is a scarcely explored area. We do not have high quality research in this area to get informed about best practices of e-leadership (Mcleod and Richardson, 2011). After an extensive review of seventy-seven research articles, DasGupta (2011) has summarized that there is a strong agreement among scholars upon e-leadership and all have concluded that as a newer field it needs more exploration. But scholars are also concerned about the "what" and the "how" on application of e-leadership in educational institutions (Cheol et al, 2018; Lilian, 2014; Weng & Tang, 2014). Liu et al (2018) have reflected that virtual communication is vital for e-leadership but surprisingly progress in this field is very modest. They have further recommended that e-leadership needs to be explored not only for technology adoption but quality of technology usage as well. In

addition to this, Chua and Chua (2017) concluded that seven core factors provide basis for e-leadership quality such as readiness, practices, support, strategies, culture, obstacles and need for ICT integration in leadership processes.

This study examines the current e-leadership practices in educational institutions at higher level in order to address the gaps and missing links in Pakistan's context. Specifically mentioning the objectives of this research are to examine and elucidate the current practices involved in adoption and enrichment of e-leadership processes at Pakistani universities and to develop a grounded model for enrichment of e-leadership practices at higher education level. RAT model has been used to study this phenomenon because it helps us to check the current level of ICT adoption in e-leadership. This model places great prominence on ensuring ICT is recurrently embedded into teaching-learning environment. Furthermore, this model helps retrieve respondents' self-reflection on three levels in an easier manner. This study is significant in two ways; firstly, it elucidates the current practices of e-leadership and the magnitude of their usage. Secondly, it proposes a grounded model for enrichment of e-leadership process according to the demands of 21<sup>st</sup> century.

### **Research objective**

Major research objective was to examine and elucidate the practices involved in adoption and enrichment of e-leadership processes at higher education level through qualitative research approach.

### **Research questions**

- i. Which e-leadership practices are currently being adopted by educational leaders in higher education institutions?
- ii. How to enrich e-leadership practices for ameliorating learning environment of higher education institutions?

### Assessment Framework

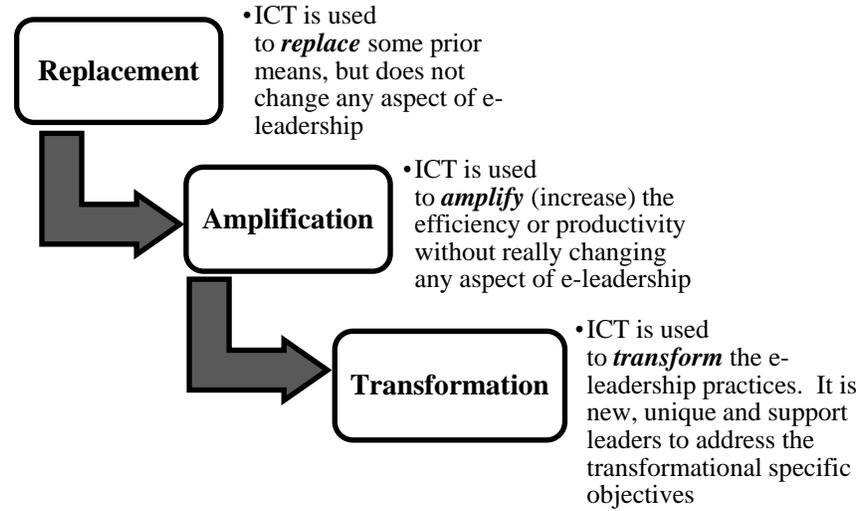


Figure 1: RAT Model for ICT integration (Hughes, Thomas, & Scharber, 2006).

RAT model by Hughes et al (2006) was adopted as assessment framework to elucidate the current e-leadership practices in Pakistani universities and design the grounded model on the gaps observed through the research findings. RAT stands for replacement, amplification and transformation of ICT tools in leadership/teaching-learning practices. According to this model, replacement phase means using technology to replace existing tools. It refers to the most basic level of ICT integration into e-leadership practices. Second phase of this model in amplification which indicates that ICT tools are being used to increase productivity and efficiency without bringing any fundamental change in organizational climate. Highest level of this model in transformation. As the name says, ICT tools are used extensively to transform the e-leadership practices. At this stage, leadership practices are totally revamped from traditional to ICT laden environment.

### Methodology

Qualitative strategy was used to navigate this phenomenological study. The data used in this study was gathered from 50 respondents selected through purposive sampling technique. All the selected respondents were working on leadership positions and their designations included deans, directors and head of departments from three public sector universities

situated in Islamabad. Data was extracted from a series of semi structured interviews and focus meetings which lasted for about 15/20 minutes from each respondent. Focus meetings helped to devise the codes and sub-themes which were further linked to themes of the Model through transcribing the data. Interview was an effective technique for data collection about the lived experiences of educational leaders using or endorsing ICT in their respective institutions. The data received through interviews and focus group was typed, transcribed and then themes/codes extracted manually using Interpretative phenomenological analysis (Cohen, 2007). This data was further analysed through descriptive statistics for further understanding of the given phenomena.

## Results and Findings

Table 1

*Participant data frequency (n=50)*

<b>Variable</b>	<b>Frequency</b>
Dean	09
Director	11
Head of Department	30
<b>Total</b>	<b>50</b>

Table 1 displays the participant data frequency for focus groups and semi-structured interviews from 3 public sector universities of Islamabad. A total of 50 participants were involved for data collection to accomplish research purposes.

Table 2:

*Themes, sub-themes, codes and frequency where themes emerged as replacement of ICT (n=50)*

<b>Themes adopted under e-leadership in higher education institutions</b>	<b>Sub-themes</b>	<b>Codes</b>	<b>Frequency of interviews where themes emerged (n=50)</b>	<b>Percentage (100%)</b>
Replacement	<ul style="list-style-type: none"> <li>• Issuing Standard Operating Procedure for replacing existing instructional tools in classrooms.</li> </ul>	Using power point, smart boards, attendance systems on daily basis in classrooms by the teachers	42	84%

Above mentioned table reflects the codes and sub-themes identified under “*replacement*” as a theme. Focus groups reflected that using smart boards, power point slides and electronic attendance systems on daily basis by teachers and students was fully endorsed by them in the respective institutions. Furthermore, issuing standard operating procedures for compulsory use of these ICT tools to replace traditional instructional methods were also disseminated among faculty by the responsible authorities. 84% responses were clustered under the theme of “*replacement*” because semi-structured interview results showed this percentage where the transcribed theme emerged.

Table 3

*Themes, sub-themes, codes and frequency where themes emerged as amplification of ICT (n=50)*

Themes adopted under e-leadership in higher education institutions	Sub-themes	Codes	Frequency of interviews where themes emerged (n=50)	Percentage (100%)
Amplification	<ul style="list-style-type: none"> <li>• Information &amp; communication technology being exhaustively used in classrooms</li> <li>• Replace traditional organizational communication with electronic-communication</li> </ul>	Complete learning management systems introduced, Emails and e-communication used instead of traditional communication modes.	27	54%

Table 3 details about the second theme “*amplification*”. Focus group discussion concluded that ICT usage and replacing it with traditional organizational communication was need of the day. Furthermore, adoption of complete learning management systems and free flow of e-communication in universities was considered as amplification of ICT by the focus group participants. In the next step, semi-structured interviews were conducted to ask about using learning management systems and e-communication in universities. 54% respondents agreed that these ICT gadgets are being used successfully in their institutions and they are monitoring the usage.

Table 4

*Themes, sub-themes, codes and frequency where themes emerged as transformation through ICT (n=50)*

<b>Themes adopted under e-leadership in higher education institutions</b>	<b>Sub-themes</b>	<b>Codes</b>	<b>Frequency of interviews where themes emerged (n=50)</b>	<b>Percentage (100%)</b>
Transformation	<ul style="list-style-type: none"> <li>• Virtual teams</li> <li>• Social media</li> <li>• Content Management Systems</li> <li>• Web-based collaboration tools</li> </ul>	Audio-video conferencing, e-chat, content-document-project-task management, Twitter, Skype, Facebook, Wats App.	09	18%

Above mentioned table displays the codes under the theme of “transformation” in use of ICT for e-leadership. Focus group discussions deduced that forming virtual teams, use of social media in leadership practices and application of content management system were essential steps to move towards transformation process in e-leadership. In addition to this, video conferencing, e-chat, content-document-project-task management and use of social media tools e.g.; twitter, skype, face book and Wats app were voted as essential codes of transformation. Result of semi-structured interview revealed that only 18% research respondents agreed that they were applying the ICT tools for transformation stage of e-leadership. It means that remaining 83% respondents did not move towards transformation phase of e-leadership.

## **Discussion**

Major research objective was to examine and elucidate the practices involved in adoption and enrichment of e-leadership processes at higher education level through qualitative research approach. Findings of the study illuminated that most of e-leadership practices are still at replacement phase in educational institutions. It means that e-leaders are involved in issuing standard operating procedures for adoption of e-culture. Studies state that at the stage of replacement, a cultural change starts in ICT mediated environment. Now it is expertise and competence of an e-leader to keep enriching this environment till the transformation phase

is achieved (Jameson, 2014; Kahai, 2018). Findings further revealed that e-leadership practices are still at amplification phase on large scale basis. Educational e-leaders have started practicing exhaustive use of ICT in classroom on basic level, such as preparation and delivery of lectures with its support as well as e-communication via emails. But e-leadership practices may move towards next phase i.e.; transformation through use of video conferencing (Liu et al, 2018). As per findings of the study, e-leadership practices are at a low percentage on transformation phase of the phenomenological model. Virtual teams, content management systems, effective use of social media and web-based collaboration tools aid e-leadership practices to transform ICT practices in educational institutions (Ibrahim, Yaakob, & Yusof, 2018; Zheng, 2018). Social media technologies, if incorporated in e-leadership practices may help reconfigure organizational mission by encouraging external networks and linkages to upgrade their own innovation and knowledge competencies (Gupta et al, 2018). We can suggest a model on the basis of gaps observed in research findings and this workable model for enriching e-leadership practices for ameliorating learning environment of higher education institutions is diagrammatically displayed as follows.

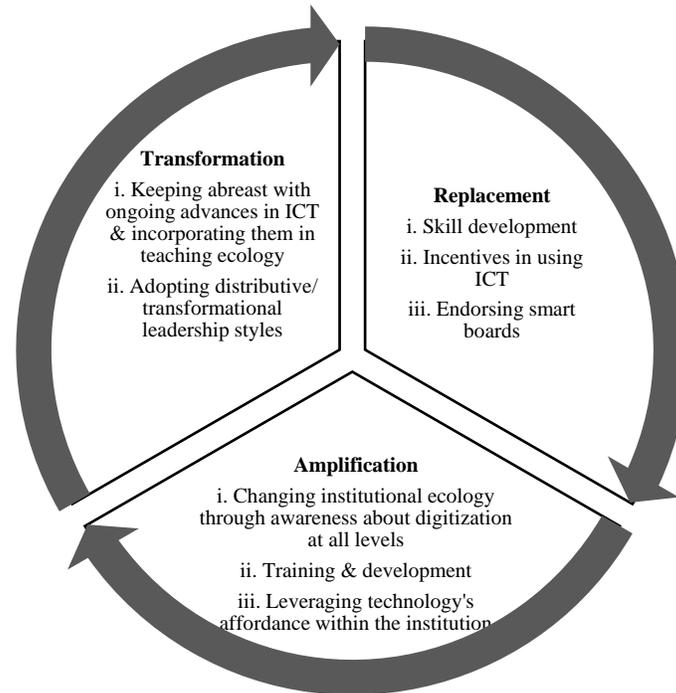


Figure 2: Proposed model for ICT adoption on RAT framework

Practical implications of this model are clearly relative. First, if the educational organizations want to compete in the digital age with other institutions, strong e-leaders having technical, analytical and conceptual skills in ICT are required. Most importantly, it is required that e-leaders must have e-leadership adoption competence and should feel comfortable experimenting in ICT embedded settings whether testing, implementing or refining new technology tools (Roman et al, 2018). In addition to this, model suggests that incentives be provided to those using ICT tools lower in hierarchy and hold trainings for their skill development. Next level of the model indicates that teaching learning ecology of the respective educational institution may be changed through repetitive conduction of awareness seminars for excessive use of digitization, leveraging technology's affordance within the institution and focussed hands on trainings for the adoption of complete learning management systems etc. Last level of the model conveys to keep abreast with latest emerging ICT gadgets and implementing them through distributive/transformational leadership styles. It is also worth mentioning that this model depicts an ongoing process of replacement, amplification and transformation. This figure suggests that enhancement and enrichment of e-leadership practices is an ongoing process and requires continuous updating and adoption of emerging technologies in teaching-learning ecology.

### **Conclusion and Recommendation**

The above paper has tried to argue that a great horizon appears for e-leadership practices in educational organizations, but not much has been practically done in this area. Most of the discussion is found in the area of business management and is dominated by techno-centric perspectives, which recommend that merely introducing new ICT gadgets will not lead towards enrichment of e-leadership practices. Instead comprehensive process of training, development and competence building is required. This study argued that if higher educational institutions are seen as knowledge economies, then complete transformation of their ecology is required and not only certain aspects of e-leadership. Achieving genuine transformation of e-leadership requires full involvement of all stake holders. This requires building competencies and developing leaders' knowledge beyond just "know – why" and "know- what" towards "know-who" and "know-how" (as both of these are more complex and complicated to comprehend). It is only then that e-leadership practices can materialize transformational stage of ICT adoption.

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