Human Values and Students' Aspiration in E-Learning Adoption

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Students with a proclivity for change and self-enhancement have higher motivation and expectations towards e-learning, while those with conservative perspectives show lower motivation and expectations. Additionally, students prioritizing self-enhancement and openness to change are more likely to actively engage in e-learning adoption.

e-learning sustainable education technology adoption transformative learning

1. Introduction

Educational systems have reflected the educational needs of society in each historical period [1]. A brief examination of the historical evolution of educational systems over time shows that these changes have been closely related to larger societal changes in each period [2]. In the agrarian era, for example, simple training was the primary focus of the educational system. Classical education, as expressed by face-to-face interaction, was essential in the educational system during the Industrial Age. The current information society demands that individuals access knowledge through information and communication technology (ICT) to keep pace with advancements. This has led to a transformative shift from traditional teaching methods to virtual education, facilitated by technology [3].

Today, the utilization of ICT marks the beginning of a new era in education [4]. This technology supports and facilitates the shift from teacher-centered to student-centered learning [5]; it has been demonstrated that ICT and e-learning can improve the quality of higher education [6][7]. This shift aligns with the goals of sustainable development by promoting active engagement, motivation, and skill acquisition among students. Innovative methods, such as increasing student motivation, interest, and participation, facilitating skill acquisition, and improving teacher training, can improve the quality of learning outcomes [8]. Therefore, universities must adapt their services and content to align with current societal ICT trends [9]. However, changes in higher education are not solely dependent on technology, but also on human resources and the ability of universities to effectively manage new technologies and their potential [10].

The adoption of e-learning is not just a matter of implementing a technological solution; it is a process that involves a variety of factors, particularly social factors, which play a crucial role in achieving the objectives of using technology in education [11]. As technology becomes more prevalent in our daily lives, the impact of culture on technology adoption becomes increasingly important. This acknowledges the importance of institutional adaptability, faculty training, and leadership in facilitating transformative teaching and learning experiences.

To ensure the success of this new educational system, educational institutions must not only work to create high-quality infrastructure for sophisticated e-learning, but must also work to understand students' perceptions of this technology-dependent environment and place their aspirations and expectations at the center of the educational process [12]. The models of technology adoption that are most frequently used by researchers typically look at how individuals behave and what their intentions are when using the technology [13]. Despite the importance of social factors, few studies have included them in the acceptance of technology models [14][15] and more particular social factors that focus on specific culture.

2. Basic Human Values

Values are a crucial aspect in the social sciences and play a central role in many areas of psychology. They are used to characterize individuals or communities [16] and play a significant role in fields such as sociology, psychology, anthropology, and others. Changes in communities and individuals' lives are organized and explained based on their values. Values are pivotal in elucidating the organization and explanation of shifts within communities and individuals' lives. Their purpose lies in comprehending the fundamental underpinnings of attitudes and behaviors, as well as their developmental trajectories [17]. However, the social sciences had yet to achieve a consensus regarding the concept and nature of these foundational values and lacked a valid empirical framework for their measurement [18]. To bridge this gap, Schwartz [19] introduced the theory of basic human values, transcending cultural boundaries. This theory underwent validation through the Schwartz survey, involving participants from over 70 nations to assess the proposed values' authenticity [20]. Schwartz's seminal work in 1992 introduced a comprehensive theoretical model that unveils the intricate interactions between various types of motivational values. This model forms the bedrock of understanding the complexities underlying human values and how they shape attitudes, behaviors, and cultural dynamics.

At the core of Schwartz's model are ten fundamental human values, each representing distinct motivational goals: hedonism, stimulation, self-direction, universalism, conformity, benevolence, achievement, security, power, and tradition. These values are not isolated entities, but are interconnected along a continuum, forming a circular arrangement that encapsulates their relationships [19], as presented in **Figure 1**.

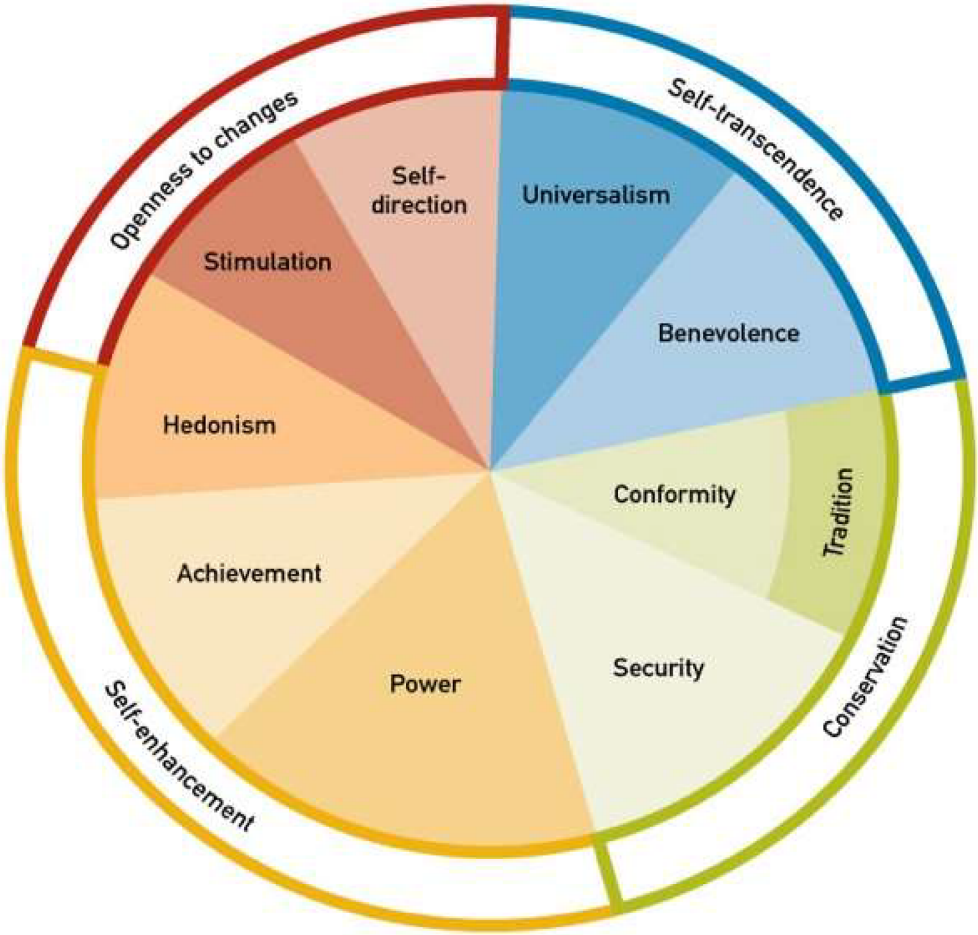

Figure 1. A theoretical model of the interactions between various types of motivational values [19].

The arrangement signifies a dynamic interplay between compatibility and conflict. Values positioned closer to each other on the circle have a higher alignment in their underlying motivations. Such proximity indicates that these values share common core motives, resulting in a higher degree of compatibility and synergy. Conversely, values positioned further apart on the circle reveal disparities in their motivational foundations, indicating potential conflicts or incongruities in their coexistence [20].

The model highlights both the individual and societal dimensions of values. While individuals prioritize and align values differently based on personal circumstances and cultural influences, communities also possess value configurations. These configurations result from the collective alignment of individuals' values within a particular cultural context [19].

Crucially, the model provides insights into the mechanisms through which values influence attitudes and behaviors. Values serve as cognitive structures that guide individuals' perceptions of the world, shaping their interpretations and responses. For instance, individuals valuing achievement and self-direction might display a proactive approach to challenges, seeking personal growth and autonomy. Conversely, those prioritizing security and tradition might exhibit a more risk-averse and conformist behavior [21].

Schwartz's theoretical model not only explicates value interactions within individuals but also extends this to societal contexts. It aids in understanding how the compatibility and conflict between values contribute to cultural dynamics, affecting social norms, group cohesion, and even intergroup relations. Moreover, this model forms the basis for empirical studies that explore the relationships between values and diverse outcomes, offering a framework to decipher the intricate mechanisms through which human values influence various facets of life [22].

3. Aspiration

The term "aspiration" has been used with different connotations throughout history [23]. The theory of student aspirations, developed by Quaglia and Cobb [24], encompasses inspiration and ambition. According to this theory, aspirations are defined as "a student's ability to identify and set future goals while being motivated to work towards these goals in the present". This perspective acknowledges the role of schools in shaping the aspirations of young individuals [25]. Various factors influence the desire to succeed, and schools can foster an environment where success is celebrated. According to Tani et al. [26], aspirations are a significant aspect of demonstrating a student's engagement in their education, which is a key component of academic achievement.

Students' aspirations are a clear indication of their commitment to education and their belief in its significance as a vital step towards their future careers [27]. These aspirations empower students to comprehend the benefits of education for their future and align with their educational expectations, and inspires them and makes the learning process more enjoyable [28]. Research has established a strong connection between students' expectations, motivations, and enjoyment on one hand, and their goals on the other [29]. The goals of students demonstrate their dedication to obtaining education, which serves as a cornerstone for their future careers. Additionally, aspirations aid students in recognizing the value and benefits of education for their future by meeting their expectations for the learning process, fostering motivation, and making learning an enjoyable experience throughout the process [30].

A student's aspirations are their expectations for the future. What a learner anticipates will transpire in the future is their anticipation [31]. In his research, Khattab [31] demonstrated that students with higher aspirations or expectations outperform students with lower aspirations or expectations. Furthermore, there is a perfect correlation between high expectations and high aspirations, which is the most significant predictor of students' future educational conduct [31]. This means that students' aspirations and expectations can have the same effect on their ability to learn.

The concept of "desire to learn" characterizes students' motivation [32], and aspirations might be termed "long-term goals" within this context [24]. Aspirations can inspire students to put forth extra effort and complete their assignments in order to reach their intended objectives. According to Olive et al. [33], motivation was an indicator of interest in a career in STEM subjects (science, technology, engineering, and mathematics) among primary students as well as among secondary students.

In light of the reviewed literature, the realm of student psychology illustrates a dynamic interplay involving aspirations, expectations, and motivations that shapes the core of ambition. Aspirations are directed by the fusion

of expectations and motivations. Expectations guide students towards goals, while motivations infuse their journey with purpose. This synergy crafts a narrative of resolute purpose, where aspirations rise, expectations anchor, and motivations drive. This symbiotic interweaving propels students towards their aspirations, showing that these aspirations are partly rooted in the fusion of expectations and motivations.

4. E-Learning and Technology Adoption

E-learning has shifted the focus from a teacher-centered approach to a more student-centered one [34], and it is seen as a novel method for delivering information and data [35]. Many institutions have been serious about implementing e-learning systems over the past ten years. They knew how important it was for e-learning to change how people learn using technology and the Internet [36]. However, the educational system still requires assistance to ensure the success of the e-learning system, which is critical for tracking the development of key university programs [37].

During the COVID-19 pandemic, e-learning and distant education were deployed in educational institutions throughout the world to promote continuous learning and prevent the spread of this pandemic [38][39]. The understanding of the factors that influence student willingness and the adoption of e-learning is crucial to the success of such systems [30]. However, to effectively integrate technology into education and enjoy its related benefits, greater knowledge of the antecedents of e-learning adoption within e-learning platforms is required [40].

The examination of users' intentions for utilizing new technology can be accomplished through various frameworks, ranging from basic to complex and in-depth models. Parasuraman [41] introduced a multiple-item scale, known as the Technology Readiness Index (TRI), to assess users' readiness to adopt new technologies. Davis [42] developed the Technology Acceptance Model (TAM) under the theories of reasoned action (TRA) [43] and planned behavior (TPB) [44] to explain and predict the acceptance of new technology among potential users. TAM is considered the most widely used theoretical framework for evaluating the adoption of new technologies. Venkatesh and Davis [45] expanded on TAM with the creation of TAM2, which describes perceived usefulness and intentions of use in relation to social influence and cognitive instrumental processes. Venkatesh and Bala [46] further developed TAM and TAM2 into TAM3, which identifies and speculates on the common determinants of perceived usefulness and perceived ease of use. The Unified Theory of Technology Acceptance and Use (UTAUT) developed by Venkatesh et al. [47] is widely used and validated and was designed to characterize users' technology adoption behavior in an organizational setting. UTAUT2 [48] is a more detailed version of UTAUT that examines how people use technology from their perspectives. DeLone and McLean [49][50] created the Information System Success (ISS) Model to identify the most important aspects of an information system and the ways in which they affect user acceptance and benefits.

Several researchers have addressed the issue of e-learning adoption by deploying the previously discussed models in adapted forms, either separately or in combination. Bessadok [51] examined the readiness of students to use the university's e-learning system based on the TRI model. Tawafak et.al [52] used the Technology Acceptance Model (TAM) and the Confirmation of Expectations Model (ECM) as guiding academic adopted models in their

study to identify the major factors influencing student acceptance of e-learning. In their research, Miah [53] used UTAUT to learn more about the factors that affect e-learning acceptance and to make it easier for students to use the system. Based on an extended UTAUT model, Revythi and Tselios [54] concluded that developers and other stakeholders in e-learning should pay attention to certain factors to improve system acceptance and effectiveness in learning management.

Zacharis and Nikolopoulou [55] have extended the Unified Theory of Acceptance and Use of Technology (UTAUT2) model by incorporating the constructs of "learning value" and "empowerment in learning" to examine the factors that predict university students' intentions to use e-learning platforms in the post-pandemic era.

In recent years, there has been a significant amount of scholarly attention directed towards evaluating the effectiveness of e-learning systems [56]. This interest has been further heightened by the COVID-19 pandemic, which has made e-learning a crucial issue for higher education institutions [57]. To measure the success of e-learning systems, researchers have adopted the Information Systems Success (ISS) model developed by DeLone and McLean [50], and some have also used its expanded version [58].

Several studies have aimed to understand the performance of e-learning systems by incorporating multiple models [59]. For example, Mardiana et al. [60] augmented the Information Systems Success (ISS) model by incorporating the Technology Acceptance Model (TAM) and the Unified Theory of Acceptance and Use of Technology (UTAUT) to identify relevant antecedents for the intention to use new technologies. Similarly, Lopes et al. [61] employed a combination of the TAM and UTAUT models to examine how and why individuals use e-learning systems, based on their behavior and intentions. Additionally, Mohammadi [62] integrated the TAM model with the ISS model to investigate the effects of quality features, perceived ease of use, and perceived benefits on user intentions and satisfaction, as well as the mediating effect of usability on the use of e-learning.

The acceptance and adoption of e-learning systems have been widely studied, with much attention given to technology acceptance and adoption within homogeneous cultural groups. However, the impact of individual-level values has received limited attention. Research has sought to explore how values, as a cultural factor, impact students' motivations and expectations for accepting e-learning systems.

Mehta et al. [63] investigated the influence of individual-level values on e-learning adoption among workers in The Gambia and the United Kingdom. This study incorporated values related to maintaining the status quo and self-enhancement from Schwartz's theory of human values. Tarhini et al. [64] aimed to examine the impact of individual-level culture on the adoption and acceptance of e-learning tools by students in Lebanon. The study expanded upon the Technology Acceptance Model by including two additional constructs and cultural variables as moderators to understand how cultural context may influence e-learning acceptance.

Despite the significance of values in impacting students' acceptance of e-learning systems, more research is necessary to examine e-learning technology adoption considering individual cultural aspects. The current study

aims to fill this gap by examining the acceptance of e-learning by incorporating students' aspirations as an indirect effect between values and technology adoption.

In conclusion, studies have shown that the integration of different models can provide a more comprehensive understanding of the factors that influence e-learning adoption. However, most of these studies focused on homogeneous cultural groups, and more research is needed to understand how individual-level values and cultural factors influence e-learning adoption.

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