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An Affordance Shift Perspective of Online Learning Over Time in Ethnographic Exploration- Online English Learning Platform

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Abstract

All activities have altered as a result of COVID-19, and the English learning platform with AI real-person contact has gained popularity. Because previous research in the field of affordance theory in education has disregarded the affordance shift, this study employs ethnography to investigate the affordance shift of learning users.

Introduction

Since the beginning of 2020, the COVID-19 epidemic, which has not been fully handled, has caused enormous tragedies all across the planet. To maintain a zero-social state of various activities, offline learning mode must be moved to online mode, and platforms that originally provided online real-time interactive video to learn English are getting also popular.

Most of the literature related to affordance theory in the educational field focuses on affordance characteristics (Park & Lim, 2019; Jung et al. 2019). Table 1 presents a brief comparison of the previous affordance theory in the education field from 2017. Despite many discussions regarding the affordance of such a smart education, there is the development of innovative technologies for education at the same time—for example, VR, natural language...etc. Especially when it comes to standing in learner aspects, it's hard to conclude that affordance as a rule, which change a lot as for the different technology. More important is that, the literature has not considered that the learners take the action to realize the learning behavior over time. Most affordance theories focus on the interaction between things in order to achieve performance.

In our paper, we focus on an English online platform, not free. Platforms are characterized by network effects, which increase the value and demand of the platform as the complement and user base expand (Jacobides et al. 2018). The focus of a platform is that consumers purchase online courses to learn. Students are motivated to take classes because they want to achieve their goals. The time period is usually rather long, ranging from a few months to a few years. Online platforms can be a good way to keep track of how these students' affordances change over time. As result, our research makes a significant contribution is that we would like to know how does affordance shift for students transform during online learning.

Table 1. The Comparison of the Previous Affordance Theory in Education Field Recently					
Studies	**Objects**	**Software**	**Research Method**	**Affordance Type**	**Affordance Definition**
Krouska et al. (2020)	Teachers	Web 2.0 tools (not private)	cross-sectional	educational	___
				usability	Teachers are aware of the pedagogical significance of the Internet.
Ke et al. (2020)	Teaching assistants	VR	cross-sectional	educational	qualities of an artifact that affect if and how a specific learning activity can be enacted in a specific context
Arslantas et al. (2019)	visual impairment students.	web-based drill program	cross-sectional	educational	The features of a specific web-based assistive technology for visually impaired students.
Park & Lim (2019)	___ (Expert Review)	___ (Likert scale questionnaire)	cross-sectional	emotional	The ability to be aware of, use, and manage one's emotional reactions in ways that are suitable for the audience, circumstances, and scenarios are defined as emotional competence. By provoking emotional emotions in

					learners, an emotionally supportive online learning environment improves learning.
Weidlich & Bastiaens (2019)	Student	Moodle	cross-sectional	social	By integrating sociability, social interaction, social presence, and social space, the SIPS model attempts to explain why social presence is possible in specific settings. Social connection is the most important source of motivation, which is supported by a welcoming learning environment. Many specialists believe that certain environmental elements are necessary for developing a social rather than a distant learning environment. These

					characteristics are known as social affordances.
Harlow et al. (2018)	Elementary students	Scratch programming environment.	cross-sectional	environmental	It is the actionable features of items in the environment.
Xiangming & Song (2018)	Student	Mobile learning tool	cross-sectional	Social	Individual user's future learning is aided through knowledge transfer.
					A broader group for increased social interaction and knowledge sharing.
Shin (2017)	Students & office workers and Factory workers	VR	cross-sectional	users' motivational	The capabilities of a virtual learning environment should scale with technology in the same manner that the capabilities of a screen do. A highlight that now appears on gaze should work with micro-gestures, hand tracking, or a thinking event. By interacting in an immersive virtual world with many affordances, a participant can

					create a tale or accomplish a number of activities.

Theoretical Background

Affordance theory is related to the relationship of the observed objects, which is coined by Gibson. He referred to affordance theory that when looking at a product or the status of the environment, people can perceive affordance rather than physical attributes. To put it another way, affordance is the opportunity that people have because of their surroundings. This concept is not comprehensive if it is just expressed in terms of physical aspects (Gibson et al. 2014). It seeks to understand that a specific organism has access to external substances (e.g. humans). People's actions are driven by their internal wants, and they are aware of and interact with their ability to produce behavior. Affordance theory has been used to research a variety of information systems (Hartson, 2003; Markus & Silver, 2008), more precisely, it is to study what users can do with IT. For IS research, affordance theory is associated with IT affordance, the relationship between people and things is just as crucial as the features of individuals or items. The technology affordance theory can explain how technology influences behavioral activities through this relationship. In other words, IT affordance refers to the ability to use IT technology to achieve specific behaviors in a given setting (Kane, 2017). the theory can be explained that human attention is drawn away from the attributes of a thing's object and toward the relationship between the subject and the object, for example, what the item can accomplish for the subject, and this relationship explains why people are content with IT technology.

Defining affordance shift

Basically, Affordance is a characteristic of a product that indicates how it can be used. The physical thing with affordance is a static property that the user can view, these attributes can be used to explain the object's function and likely actions. Additional indications may be required to identify affordance, depending on the object's attributes and the user's experience (Norman, 2013).

However, when the focus of attention is given to the materials, contexts, or design as a resource, anything can interact in contact with them. Without the dynamic affordance of this type of contact, there is no learning or formulation of what is learned. When knowledge is used as a tool in the context of situational activities, dynamic affordance is possible. An interactive dynamic allows for the acquisition and application of knowledge (Cook & Brown, 1999).

In our paper, the shift affordance is that what the different types of affordance enter into the virtual learning in every process. We are only focusing on new students who studying related to business on the digital platform instead of the management information system student. We would like to know the whole process when the

people first meet the things and how to change the affordance.

Objectives

We visit the “H” online global English tutor site, which provides real-time interactive videos for online English study. We obtained empirical evidence from three important sources over the course of two years: observations, interviews, and documents (e.g. tutor comments, student feedback), and observations. We will observe 4 students between 2022 and 2024 on “H” online tutor site and they are all located in a strong WIFI connection in Taipei and make the interviews with 100 teachers who works in H tutor site in the Philippines. On different days of the week and on different working days, observations were made.

We ask students whether they are willing to submit audio and video recordings for the company's research goals in the contract within purchasing the online English courses on “Hi” online global English tutor site, and then we choose the observation to conduct the study so that we can easily examine the affordance change. As a result, we took notes on each and every action and interaction that took place, and then transcribed the class video/audio into files at the end of each day. The categorization of field notes began right away and led the collection of more observational data.

Method

Based on two years of ethnographic fieldwork performed by the second author at the tutor office, the examples presented here are empirical.

Results

While taking a lot of classes on the platform, we hope to see the various affordances. The technological affordances would come first for a beginner in the platform. The learner would therefore be considerably more at ease on the platform as time passed, and there would be several affordances to it in order to achieve the aim. Furthermore, changes in environmental and technological affordance will be engaged when students enroll in multi-person and one-to-one classes. When it comes to virtual environments, affordance has evolved from workplace environmental affordance to technical affordance in earlier literature. Teamwork has suffered as a result of this change (Waizenegger et al. 2020).

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