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WHAT DO EDUCATIONAL TECHNOLOGISTS DO? THE DISCIPLINE AS DEFINED BY EDUCATIONAL TECHNOLOGY PRACTITIONERS

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ABSTRACT

The field of educational technology has suffered from an identity crisis as it has struggled to define itself in the face of fast-paced historical, technological, and educational advancements. As online technologies have exploded into mainstream education and corporate training, the need for professionals who are highly qualified in designing, developing, implementing, and assessing instruction, as well as selecting appropriate technologies to support traditional and online programs, has increased. However, the roles and responsibilities of educational technologists have become as varied as the employers who hire them and the tools they use, causing confusion about what an educational technologist is and does. This paper provides: (1) a brief history of the educational technology field; (2) an overview of educational technology definitions; and (3) the results of a study conducted to ascertain what educational technology practitioners do, what skills they possess, and, in their own words, how they define their discipline. This study can help prospective students make informed decisions regarding their futures and serve as a starting point for interdisciplinary relationships between Educational Technology and CIS, IT, and CS, programs in higher education to prepare well-rounded graduates with highly marketable skills who are prepared for the increasing demands of the workplace.

Keywords: Educational Technology, Instructional Technology, Education and Training; Instructional Design and Technology.

INTRODUCTION

The Doctor of Education Program at The University of Texas at Brownsville recently began recruiting for the fall 2013 cohort. This coming year, only two specializations will be offered, *Higher Education Teaching* and *Educational Technology*. In the first recruiting seminar, nearly two-dozen prospective students from around the lower Rio Grande Valley of Texas attended. After the coordinator introduced the doctoral program and the two specializations, he asked the participants to form two groups based on their area of interest. Only 2 students joined the Educational Technology group. After the meeting, we pondered why there was so little interest for Educational Technology, despite its growing demand in K-12 education, higher education, corporate, and government settings. For the next recruiting seminar, we asked the coordinator if he would give us 5 minutes to describe the Educational Technology specialization before breaking the participants into groups. In five minutes we defined the field, described the roles our graduates have assumed, and delineated a long list of career options available to educational technology graduates. This time, the results were flipped, everyone (with the exception of 2 prospective students), joined the Educational Technology group. This experience taught us that most people, including most educators, have no idea what educational technologists do. People's preconceived notions or lack of knowledge about the discipline may be leading them into alternate career paths.

It is our hope that by arming prospective students with knowledge about what educational technologists do, how much they earn, and what jobs are available to them upon graduation, they will be able to make informed decisions regarding their futures. In addition, interdisciplinary opportunities between Educational Technology and Computer Information Systems, Computer Science, Information Technology programs in higher education can be built to help prepare professionals who are highly qualified to meet the realistic demands of the workplace. In order to achieve this, a study was conducted in Spring 2013 that surveyed educational technology program graduates and professionals. By reading how educational technology practitioners, in their own words, describe their discipline and roles, prospective students will have the necessary information for making informed career choices based on real-time information. The results of this study can also serve as a guide for employers to make more accurately informed decisions about hiring and utilizing the skills of educational technologists. Toward this end, this paper provides: (1) a brief history of the field of educational technology to explain how the scope and definition of the field has evolved over the past 100 years; (2) an overview of educational technology definitions; and (3) the results of a study conducted to ascertain what educational technology practitioners do, what skills they possess, how much they earn, and, in their own words, how they define their discipline.

BACKGROUND

Brief History of the Educational Technology Field

While most believe that educational technology is a young field, its history is actually intertwined with historical developments and early advancements in technology and education. Learning, the "education" part of the field has been around since the dawn of human kind. The need to learn is innate and the use of the tools or "technologies" around us to facilitate that learning is an integral part of the package. While a comprehensive coverage of the history of educational technology is beyond the scope of this study, tracing the field starting in the early 1900's with advancements in communication technologies can provide insight into the evolving definition of the most current form of the field.

In their historical accounts, AECT (Association for Educational Communications and Technology), the leader in maintaining the history, standards, and professional practices of the field of Educational Technology, cited the mainstream proliferation of the motion picture, as well as the research conducted on its role in learning in the 1920's, as key events in the development of modern-day educational technology. While today, most people think of the Internet as the tool that put the world of information at people's fingertips, AECT [1] attributed this to early radio, noting, "Within 20 years [of the motion picture] both film and radio became pervasive communication systems, providing both entertainment and information to the average citizen." The historical events that followed, specifically World War II, catapulted the United States into a new era of science, mathematics, and technology.

A document published by The National WWII Museum [10] revealed, "For all the role of science, mathematics, and new inventions in earlier wars, no war had as profound an effect on the technologies of our current lives than World War II (1939-45)." World War II did not only result in advancements in technology, it also created an insatiable demand for a continuous stream of trained workers, thereby changing the landscape of workforce training and learning. "Media took a prominent place in educational and training systems attempting to fill such needs." [1] Training programs now had to rely on technology much more heavily to prepare the needed workforce not only more quickly, but also more effectively, prompting a need for new teaching methods. Saettler [9], the leading American educational technology historian, concurred, "World War II- a period of expansion in military and industrial research- marked the confluence of audiovisual and instructional technology in the United States." The result was "research centered on the use of these media in a wide variety of teaching and learning situations," [1] which provided fertile ground for blending education and technology.

The educational, technological, and historical advancements that ensued prompted changes in education at all levels, creating another evolution in the concept of educational technology. "After the war, schools and industry alike attempted to settle back into the old, familiar methods of operation." [1] However, AECT [1] historians noted, "Within a few years...the increase in the birth rate and public school enrollment forced a re-evaluation of the older and slower approaches to education. Again, media were employed, this time to upgrade the curriculum of the public schools." Changes in the public school curriculum, coupled with increased needs for industry to look within itself to provide training, as well as the availability of post war mass communication technologies, such as the television and the microcomputer, prompted the exploration of new ways of understanding teaching and learning.

The field was now primed for the work of the educational psychologists who shifted the focus of educational technology from the delivery methods and technologies to "the nature of the learner and the learning process [1]". This provided a theoretical basis that brought "a new and apparently more respectable rationale for the field." [1] Also happening at the time was the development of professional organizations that, according to Saettler [9], "led to the...prospect of the systems approach to learning, a true science of instructional communication." According to AECT [1], "today, the field...is placing new emphasis upon the role of instructional context, and the unique perceptions and views of the individual learner." Consequently, educational technology research maintains a strong focus on the "contemporary problems of what to teach, to whom, and how." [9] These factors, as well as past historical, educational, and technological advancements, have necessitated the ongoing reassessment of the purpose, scope, and definition of the field of educational technology, as well as the skills required of professionals in the field.

The authors of AECT's [1] historical tracings of the field, point out that although educational technology was born from PK-12 education systems, "the field was later heavily influenced by military training, adult education, and post-secondary education." They [1] added that in fact, "much of today's activity is in the area of private sector

employee training," thereby resulting in added responsibilities for educational technologists who are leading "organizational change, performance improvement, school reform, and cost benefits" [1] for their organizations. Also compounding the challenge of defining the field and role of educational technologists is the expansion into formal and informal learning in healthcare, industry, business, military, and other areas. According to AECT [1], "each of these instructional contexts highlight the diverse needs of learners of many ages and interests, and of organizations with many goals. The many settings also provide laboratories for experimenting with and perfecting the use of the new technologies" (para 10). Hlynka and Jacobsen [4] concurred, adding that fast-paced changes in technology exacerbate the complexities of defining the field in any consistent manner. "Today...the tasks [of the educational technologist] are converging as technologies converge." [4] The technologies and resources that before were only accessible to professionals, who could afford them and had mastered them, are now in the hands of every day users. They are easy to use and usually free (or available at a very low cost) on smart phones and other mobile devices. "Traditionally a producer creates, a student uses and a teacher manages. The contemporary convergence of these tasks is one of the major characteristics of the first decades of the 21st century, for better or for worse." [4] Before, the educational technologist held all of the knowledge, as well as the tools. However, today, "anyone can produce a video for YouTube; everyone is their own editor; and the role of teacher as manager is on the verge of being replaced by teacher as designer and facilitator of learning." [4] Consequently, the historical developments, coupled with fast-paced educational and technological changes of this century have greatly influenced the definition of educational technology, bringing along with it a re-conceived notion of the role of the educational technologists.

Defining Educational Technology

As is evident from tracing the past of educational technology, the intersecting of historical, educational, and technological developments of the past 100 years have exponentially increased the pedagogical and technological possibilities for learning, adding to the complexity of defining the field. This challenge is reflected in the history of the development of the definition of educational technology itself. AECT began defining educational technology, then known as *audiovisual communications*, as early as 1963 [5].

Januszewski and Persichitte [5] noted that the 1963 definition was the "first in a series of four officially sanctioned definitions" and was "developed by the Commission on Definition and Terminology of the Department of Audiovisual Instruction (DAVI) of the National Education Association (NEA) and supported by the Technological Development Project (TDP)." [5] This is important to note because it points to the national effort made by several organizations in education and technology to officially define the field. Over the course of the next 45 years from the time of the first definition in 1963, AECT [5] revised and published definitions in 1972, 1977, 1994, and 2008 (the most current definition).

Despite the epic work of cooperating organizations, agreeing on a definition of the field has not been without controversy. For example, in 2010, Lowenthal and Wilson [6] published an article in which they argued against AECT's reverting the name back to Educational Technology, refuting the changes in the name and definition as lacking justification. Their article, pointed out the importance of the name and definition of educational technology, as well as their impact on the professionals in the field. They [6] stated, "this change affects how external audiences view our profession and is likely to confuse practitioners in corporate and higher education settings in particular." Lowenthal and Wilson [6] added, "the labels we use to define ourselves are critically important – and we hope to see a stronger case made for changes for our foundational definitions in the future."

The definition of educational technology also depends on who defines it and what perspective they are operating from. Educational technology can be viewed from several points of view, including the: instructional design perspective [2]; engineering perspective [2]; design-research oriented perspective [2]; research perspective [2]; institutional perspective [2]; technology perspective [2]; where-it-is used perspective [2]; and the systems perspective [7]. There are also perspectives based on the educational theory emphasized (ex.: situated learning, cognitive learning, etc.).

Although the origins, perspective, focus, definition, and roles may not be clear, what is not in question is the need for clear definitions and roles. Hlynka and Jacobsen [4] noted, "our field needs definitions. We need operational definitions of educational technology that add clarity and focus to who we are and what we do." Below is a sampling of definitions from the key organizations and researchers in the field.

The Association for Educational Communications and Technology (AECT) [5] defined Educational Technology as

"the study and ethical practice of facilitating learning and improving performance by creating, using, and managing appropriate technological processes and resources."

Luppicini [7] noted, Educational Technology is a "goal oriented problem-solving systems approach utilizing tools, techniques, theories, and methods from multiple knowledge domains, to: (1) design, develop, and evaluate, human and mechanical resources efficiently and effectively in order to facilitate and leverage all aspects of learning, and (2) guide change agency and transformation of educational systems and practices in order to contribute to influencing change in society. "

Reiser [8] observed, the field of instructional design and technology (also known as instructional technology) encompasses the analysis of learning and performance problems, and the design, development, implementation, evaluation and management of instructional and non-instructional processes and resources intended to improve learning and performance in a variety of settings, particularly educational institutions and the workplace.

In their research, Hlynka and Jacobsen [4] pointed out, "A sharp focus on facilitating learning and improving performance via technological processes and resources, versus products or tools, is vital to understanding the educational part of the definition." With so many evolutions, definitions, and terms to name the field, confusion about the discipline permeates even today. The following study will provide insight into how educational technology practitioners define their field and assess whether or not their perceptions align with the definitions cited in the literature.

METHODOLOGY

Research Questions

The purpose of this study was to determine how educational technology practitioners define their discipline and characterize the work they do. Within this framework, the following research questions were addressed:

1. How do Educational Technology practitioners define their field and professional responsibilities?
2. Do Educational Technology practitioners' perceptions of the field align with descriptions cited in the literature?

Instrumentation

Data for this study was gathered through a 16-question electronic survey that was distributed to educational technology practitioners through two professional listservs: *IT Forum*, an electronic community managed and moderated by the *Association for Educational Communications and Technology (AECT)*; and, the *Distance Education Online Symposium Listserv (DEOS-L)*, from April 22 through May 6, 2013. These two forums are the premier listservs for the educational technology community and the ideal venues for conducting a survey of educational technology professionals.

Demographic information was solicited through a series of questions in order to create a profile of the survey respondents, as well as to determine whether the sample was representative of the population. Information about educational technology practitioners' job descriptions, roles, as well as income and job satisfaction levels was solicited through a short set of questions in order to ascertain the scope of the work educational technologists do. A final, open-ended question asked respondents to define the job of an educational technology professional based on their work experiences. Over the two-week period, 161 educational technology practitioners volunteered to participate in this study.

Participants

Of the 161 survey respondents, 60.9% were female, 39.2% were male. Ages ranged from 21 to 70+ years old with the median age group being between 30 and 39 years of age. 72.7% identified themselves as Caucasian, 16.2% Hispanic, 5% African American, and 3.7% Asian. Regarding educational background, 73.9% possessed Master's degrees, 22.9% held Doctoral degrees, and 3.1% had Bachelor's degrees. Table 1 below represents the demographic characteristics of the survey participants.

Table 1. Demographic Characteristics of Educational Technology Survey Participants (*N*=161)

Characteristic	Number	Percentage
Gender		
Female	98	60.9%
Male	63	39.2%
Age		
21 – 29	10	6.2%
30 – 39	47	29.2%
40 – 49	46	28.6%
50 – 59	43	26.7%
60 – 69	14	8.8%
70 or Older	1	0.6%
Ethnicity		
Caucasian	117	72.7%
Hispanic	26	16.2%
African American	8	5.0%
Asian	6	3.7%
Other	4	2.5%
Highest Degree Held		
Bachelor's Degree	5	3.1%
Master's Degree	119	73.9%
Doctoral Degree	37	22.9%

RESULTS

The survey questions were grouped into 3 categories. The first category pertained to participants' educational background. The second category asked participants about their employment, and a final open-ended question allowed participants to answer the question, "Based on your experience, what does an Educational Technology professional do?" The following section presents the results of the study.

Category 1: Educational Background

Of the 161 participants, 94.4% (n=152) indicated that they had a degree in an Educational Technology/Instructional Technology or related field. Of these respondents, 73.9% (n=119) had Master's degrees, 23% (n=37) had Doctoral degrees, and 3.1% had Bachelor's degrees. When asked why they pursued these degrees, the three most chosen responses included: professional development (47%, n=77); career change (41.6%, n=67), and lifelong learning (39.1%, n=63). Respondents also cited salary increase (27.3%, n=44) and promotion (17.4%, n=28) as motivations for earning their degrees. In the "Other" category option, some respondents identified increased marketability to remain competitive, strong interest and passion in the discipline, to achieve their dream career, and in order to teach Educational Technology/Instructional Technology courses in higher education.

When asked how long after graduation it took for them to enter an Educational/Instructional Technology related field, a surprising 54.7% (n=88) of survey respondents indicated they were hired before graduating, with an additional 14.9% (n=24) being hired within the first 6 months. Nearly 77% of survey respondents entered an Educational/Instructional Technology related field within the first year of graduation. Table 2 below presents the data for survey respondents' educational background.

Table 2. Questions pertaining to survey respondent's educational background. (*N*=161)

Response Options	Percent	Number

Do you have a degree in Educational/Instructional Technology (or related field)?		
Yes	94.4%	152
No	5.59%	9
Why did you pursue this degree?		
Career Change	41.6%	67
Promotion	17.4%	28
Salary Increase	27.3%	44
Lifelong Learning	39.1%	63
Professional Development	47.8%	77
Other	19.9%	32
Highest degree held?		
Bachelor's Degree	3.1%	5
Master's Degree	73.9%	119
Doctoral Degree	23.0%	37
How long after graduation did it take for you to enter an Educational/Instructional Technology related field?		
Hired before graduation	54.7%	88
Within 6 months of graduation	14.9%	24
Within 1 year of graduation	7.5%	12
Within 2 years of graduation	3.1%	5
Within 3 years of graduation	2.5%	4
Within 5 years of graduation	0.6%	1
Longer than 5 years	5.0%	8
Never	11.8%	19

Category 2: Employment

The next series of questions asked educational technology practitioners about their job descriptions, duties, skills, and salaries. When asked if they were currently employed in an Educational/Instructional Technology (or related) field, 81.2% (n=132) of survey respondents indicated *yes*, while 18% (n=29) said *no*.

When asked if they liked their jobs, 76.4% (n=123) said *yes*, while 18% (n=29) believed their jobs were merely OK. Only 5.6% (n=10) of survey respondents thought they needed a change. Interestingly, of the 10 individuals who desired a career change, 4 were not currently employed in an educational technology/instructional technology related field. Therefore, of the 161 educational technology practitioners who are actually working in the field, only 3.7% (n=4) felt they needed a career change. The vast majority of educational technology practitioners actually like what they do.

If income is one indicator of job satisfaction, salaries for educational technology practitioners responding to the survey, ranged from $20,000 to $29,000 on the lower end to $160,000 and higher on the upper end of the salary scale, with over 60% of educational technology practitioners earning between $50,000 and $89,000. While unemployed workers and practitioners with undergraduate degrees occupied the lower income brackets, when income was analyzed by educational level, an obvious trend was observed, the higher the educational level and years of experience, the higher the income of the educational technology practitioner.

When asked to identify the roles that best described what they did, it became immediately evident that educational technology practitioners wore many hats and assumed a wide range of professional responsibilities. Of the 18 listed response options for this question, every item was chosen, in addition to 34 (21%) additional write-in responses. Not surprisingly, the top five roles included: instructional designer (53.1%, n=86); course developer (33.3%, n=54); instructional materials developer (32.1%, n=52); college/university professor (28.4%, n=46); and, consultant (26%, n=42). Other popular roles included trainer (25.3%, n=41); curriculum developer (22.2%, n=36); web designer (21%, n=34); IT support (20.4%, n=33); and, K-12 teacher (16.7%, n=27).

When asked to identify the skills they possessed, it became immediately obvious why educational technology practitioners were so versatile. Of the 23 listed response options for this question, every option was selected by at least one forth of the survey respondents. The top five skills in the educational technology practitioners' skills set were: instructional design (90.1%, n=146); teaching with technology (85.2%, n=138); e-learning development (77.78%, n=126); technology integration (74.1%, n=120); and, training/tutoring (71.6%, n=116). Other important

skills included: teaching/mentoring (70.4%, n=114); online teaching (69.1%, n=112); web design (66.1%, n= 107); multimedia development (66.1%, n=107); blended learning (65.4%, n=106); and, working collaboratively (64.8%, n=105). Table 3 below presents the data for survey respondents' answers to questions pertaining to employment.

Table 3. Questions pertaining to educational technology practitioner's employment. (*N*=161)

Response Options	Percent	Number
Are you currently employed in an Educational/Instructional Technology (or related) field?		
Yes	81.2%	132
No	18.0%	29
Do you like what you do?		
Yes! I Love it	76.4%	123
It's OK	18.0%	29
No. I need a change	5.9%	9
Salary Range?		
$20,000 - $29,000	3.1%	5
$30,000 - $39,000	7.5%	12
$40,000 - $49,000	19.3%	31
$50,000 - $59,000	19.9%	32
$60,000 - $69,000	19.9%	32
$70,000 - $79,000	10.6%	17
$80,000 - $89,000	8.1%	13
$90,000 - $99,000	4.4%	7
$100,000 - $109,000	1.9%	3
$110,000 - $119,000	2.5%	4
$120,000 - $129,000	0.0%	0
$130,000 - $139,000	0.6%	1
$140,000 - $149,000	0.6%	1
$150,000 - $159,000	0.6%	1
$160,000 or higher	1.2%	2
Which of the following best describes what do you do? (Check all that apply)		
Instructional Designer	53.1%	86
K-12 Teacher	16.7%	27
College/University Professor	28.4%	46
Campus/District Technology Coordinator	11.1%	18
Trainer	25.3%	41
Training Manager	9.3%	15
Course Developer	33.3%	54
Technical Writer	6.8%	11
Consultant	25.6%	42
IT Management	8.6%	14
IT Support	20.4%	33
Curriculum Developer	22.2%	36
Instructional Materials Developer	32.1%	52
Learning Resources Collection Manager	9.3%	15
Instructional Computing Services	6.8%	11
Distance Education Coordinator	15.4%	25
Web Designer	21.0%	34
Director of E-Learning	10.5%	34
Other	21.0%	34
What skills do you have? (Check all that apply)		
Instructional Design	90.1%	146
Web Design	66.1%	107
Graphic Design	38.9%	63
E-Learning Development	77.8%	126
Multimedia Development	66.1%	107

Programming	25.3%	41
Assessment	54.3%	88
Program Evaluation	44.4%	72
Technical Writing	29.0%	47
Online Teaching	69.1%	112
Teaching/Mentoring	70.4%	114
Training/Tutoring	71.6%	116
Staff Development	60.5%	98
Technology Integration	74.1%	120
Research	56.8%	92
Team Building	47.5%	77
Collaborative Work	64.8%	105
Blended Learning	65.4%	106
Mobile Learning	37.0%	60
Learning Management	51.9%	84
Professional Development	58.6%	95
Social Media	52.5%	85
Teaching with Technology	85.2%	138
Other	8.64%	14

Category 3: In Their Own Words

Sometimes it is difficult to obtain a clear picture of what people think or do through multiple choice or multiple option survey questions alone. For a richer, more meaningful insight into what educational technology practitioners think about their discipline and the work they do, a final, open-ended question was included in the survey. The question asked survey respondents to describe, based on their experience, what educational technology professionals do. The following are a representative sample of what they had to say. Their responses were very insightful.

"An Educational Technology professional is an expert in the effective application of technology to solve pedagogical challenges. This means that the EdTech pro has to have a deep understanding of both pedagogy - theories and models of teaching, learning, cognition, and memory as well as practical, real-world problems and solutions and effective practices - and technology, whether that's chalk-and-sidewalk or the latest in virtual environments or mobile augmented reality. But the Ed Tech pro doesn't just know what's new. He or she knows what works for which audiences, when it's appropriate, and when it's not. The Ed Tech pro knows when to say, 'You don't need an app. You need a 3x5 laminated card'."

"The work I do includes analyzing requests for training from an ROI and feasibility perspective, gathering requirements, writing proposals, developing project plans, managing projects, writing content, developing storyboards, developing online, blended and face to face courses including the graphic design, programming and administering the LMS, evaluating courses, developing new business processes, teaching online courses and presenting at conferences."

"We bridge the gap between students and content through sound pedagogy/andragogy and by training teachers to use the right tools for the job."

"EdTech professionals may be involved in the analysis, design, development, implementation, assessment or maintenance of an education solution aimed at facilitating learning and performance with the assistance of the most appropriate and up-do-date technologies, more specifically the information and communication technologies."

"I really do a little of everything. In my position I help faculty and other academic departments research and implement emerging technologies. I also provide trainings on current and emerging technologies. I am responsible for research and comparison when updating and purchasing classroom technology equipment. I work for Information Technology Services so I lend a hand whenever needed in other areas. One of the biggest things I do is act as a liaison/interpreter between ITS staff and faculty and staff. I understand both academics and technology, which is sometimes hard to come by."

"I think Educational Technologists are a hybrid position between education and IT. We find value in both fields and are able to assist in the communication between IT professionals and academics. We also assist in shaping the overall vision, keeping in mind both fields."

"Education Technologists keep one foot in the IT world and another in the classroom. Through demonstration and experimentation EdTech professionals can suggest solutions to other educators. I've told faculty, you tell me your educational need or problem, I'll give you a workable solution."

"Everything... I wear so many hats. I have different projects spanning K - 12 each week. Nothing is ever the same. Since I spent 10 years in the classroom I have an understanding regarding how to connect teachers with technology and how to communicate needs with administration and IT then vice versa. I conduct lots of professional development sessions, create instructional resources regarding technology integration for the classroom, work on teams to design District technology solutions, collaborate with stakeholders to design technological solutions for electronic gradebooks and common core standards, research technology initiatives for future pilots, design technology expectations and 21st century performance assessment expectations by grade level, work with Principals to make purchasing decisions, and work with building architects and contractors to improve classroom design for 21st century learning... etc. All of the projects listed above took place in the last month!"

"Based on my experiences an EdTech professional may wear many hats. I have gone from teaching, designing, creating projects, tutoring, social media etc. So as an EdTech professional, I believe the sky is the limit, there is so much one can do in this field."

The following section provides a discussion of the results of the study in response to the two research questions.

DISCUSSION

This study sought to define the role of educational technology professionals in K-12, higher education, corporate, and government work environments. Specifically, the researchers sought to determine if educational technology practitioners' job descriptions and responsibilities aligned with the definitions of the educational technology discipline as cited in the research literature.

To address the question of how the field of educational technology is currently being defined by scholars, we turned to the research literature. After reviewing dozens of definitions, it quickly became evident that attempting to come up with a unified definition of the field was like trying to hit a moving target. Depending upon whom you ask, the definition of educational technology takes on a different perspective. On one end of the educational technology continuum, the emphasis is on the design and development of instruction to facilitate learning and enhance performance. On the opposite end, the emphasis is on the selection and utilization of instructional technologies, media and delivery methods to enhance teaching and learning. Perhaps, the best, and most encompassing definition lies at the intersection of these two extremes. Of the numerous definitions analyzed for this study, one of the most comprehensive definitions comes from the Association for Educational Communications and Technology (AECT). They [1] define Educational Technology as "the study and ethical practice of facilitating learning and improving performance by creating, using, and managing appropriate technological processes and resources." Although this definition is not perfect, and is not without its detractors, it seems to get to the essence of what educational technologists do.

To address the question of how Educational Technology practitioners define their field and professional responsibilities, a survey was developed based on typical questions raised by prospective students and employers about the educational technology field. The responses were as diverse as the survey population and the definitions of the field being promoted in the research literature. As many survey respondents explained, educational technology professionals wear many hats and assume many roles within their organizations. In several instances, the jobs they were tasked with had little or nothing to do with their official job titles or descriptions, but were assigned to them because no one else had the capacity to perform them. Several respondents asserted they worked in or with the IT department, and oftentimes served as the liaisons--or as one survey respondent described, "interpreters"--between ITS staff and the instructors/trainers within their organizations. Accordingly, the majority of educational technology professionals tended to be multitalented and able to adapt to ever-changing work environments and conditions.

To address the question of how well Educational Technology practitioners' perceptions of their field aligned with the definitions cited in the literature, the researchers compared the more prominent definitions to practitioners' self-described roles and responsibilities. Based on the data obtained from the survey, educational technology professionals' responsibilities seemed to regularly extend or stray beyond their official titles and job descriptions. This phenomenon can be attributed to the public's (and oftentimes, practitioners') misperceptions of the educational technology field's true scope of influence. Multiple definitions of the discipline also contribute to the

confusion. Graboswki [3] theorized these misperceptions about the field may be due to a lack of identity within the discipline. In her reflections about educational technology as a discipline, she noted educational technology professionals' reluctance to define their field in order to not box it in. She speculated whether educational technology programs' lack of identify was "an indication of identity crisis, mission creep, or, perhaps, both." [3] Whether or not the educational technology field suffers from an identity crisis or mission creep, the wound is most likely self-inflicted.

CONCLUSIONS

In summary, it is evident that the educational technology field is still struggling to define itself. However, based on the data from this study, a profile of the educational technologist is beginning to emerge. Educational technology professionals wear many hats and assume many roles within their organizations. Whether they work in K-12 education, higher education, business, government or military settings, they are entrusted with a host of responsibilities that oftentimes extend beyond their job descriptions and training. Based on descriptions provided by the survey participants, educational technology professionals are leaders, collaborators, team players, problem solvers and change agents. They are teachers, mentors, tutors, and guides to their students, colleagues, and coworkers. They assess needs and design, develop, implement and evaluate learning solutions using innovative pedagogical and technological strategies. They are lifelong learners, researchers, planners, advocates, and avid readers of all things related to educational technology and best practices in teaching and learning and technology integration. In order to perform their many job functions, they are naturally curious, knowledgeable, flexible, multitalented, creative and driven. In essence, the educational technology professional has a broad range of skills and expertise that can be applied in a variety of contexts and roles to multiple ends. As such, the educational technology professional is a valuable asset to any organization. Furthermore, as the lines between educational technology, computer information systems, and information technology blur, opportunities are created for interdisciplinary partnerships between these and other related programs in higher education.

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