Keywords: design scholarship, ITAA design proceedings, retrievability, content analysis

Introduction. Considering the current state of design scholarship in the field of clothing and textiles that often results in a designed artifact providing an understanding of the inspiration or theoretical foundation (Adams and Meyer, 2011), it is crucial to conduct a comprehensive and analytical review of design works done by design professionals and explore the design scholarship trends (Hwang, Shaheen, & Chawla, 2018). Therefore, we aimed to explore keywords from the ITAA professionals’ design proceedings over the period of 1999 to 2017, which would provide a valuable means to understand the current status as well as the past trends of the ITAA design exhibits. For this study, we were based on Bye’s (2010) framework of design scholarship, which includes three approaches – problem-based design research, research through practice, and creative practice.

Literature Review. ITAA has served as a premier outlet for design scholars to showcase their scholarship in the field of clothing and textiles. Since the ITAA design exhibit was first held in 1989, it has been annually held at the ITAA annual conference. The presentation related to design scholarship has continuously evolved in terms of format, size, depth, and review process over the last 29 years. The ITAA design exhibit is a manifestation of creative approaches with the goal of cultivating audiences and helping them to understand not only the individual pieces but the greater role of design scholarship (Campbell, 2006). Efforts have been made to engage more designers to visualize and deliver design ideas and to provide accessibility to a wider audience, which include providing design scholarship awards and changing the presentation details of the exhibit (Campbell, 2006).

Keywords cover the comprehensive contents of a scholarly work (Eassom, 2017) and it is in the authors’, here designers’ best interests to select appropriate words or phrases to increase the probability of their works being found by potential readers. In this respect, it is critical to explore how design scholars use keywords in their design proceedings because keywords play a significant role in increasing the retrievability of their work through various routes (Eassom, 2017). There has been no attempt to explore the past design scholarship trends using the keywords of the ITAA professionals’ design proceedings for the last two decades, which makes our study be original and unique.

Methods. The ITAA Proceedings from 1999 to 2017, electronically retrievable through the Iowa State University Library Digital Collections, were used as the primary data source of this study. We limited our data to the ITAA design proceedings accepted at the professional level because professionals often advance trends related to design scholarship through creating original works and leading/mentoring undergraduate and (or) graduate students. For the designs
accepted at the graduate level, if their work was coauthored with professionals, they were included in the sampling pool. The keywords of the design proceedings from 1999 to 2017, excluding 1999, 2000, 2001, 2002, and 2006 with no keywords, were analyzed. A total of 2,359 keywords were used for the analysis. In the coding process, we referenced the list of juried track categories included in the 2018 design exhibit calls (ITAA, 2018); however, we did not limit to this list when developing our coding guide. Content analysis was conducted by two researchers and inter-coder reliability greater than 93% was achieved (Creswell, 2013).

**Results and Discussion.** From the keywords analysis, six overarching themes with 20 subthemes were derived: (a) Inspirational References (historical, cultural, color, general inspiration); (b) Textiles (textile properties, fabric type, textile surface design, dye techniques); (c) Technology (emerging technologies, wearable technology, textile innovation, 3D printing); (d) Apparel Design (garment techniques, garment type, garment design process, functional design, target market, body-design aesthetics); (e) Sustainable Practices (sustainability); and (f) Non-Apparel (assessor or non-apparel). For the past two decades, among the total of 2,359 keywords coded, Apparel Design was the most frequently reported main theme, accounting for 31.2% of the data, followed by Inspirational References (25.8%), Textiles (24%), Sustainable Practices (8.8%), Technology (8.7%), and Non-Apparel (0.8%). A review of the keywords of 20 subthemes revealed that General Inspiration was the most frequently reported subtheme (16.4%), followed by Garment Design Process (13.5%), Textile Surface Design (10.6%), Fabric Type (8.9%), Sustainability (8.8%), Garment Type (7.6%), Garment Technique (5.7%), Textile Innovation (4.7%), Historical Influence (4.5%), Cultural Influence (4.2%), and the remaining subthemes.

We also analyzed the years by themes and subthemes to determine if any design scholarship trends have occurred since 1999. Sustainability increased in 2009 to be the fourth most reported subtheme (8.6%) and was the number one reported subtheme in 2017 (17.9%). It was also noticed that Textile Innovation is a possible future trend in design scholarship because it was the most reported subtheme in 2016 (22.5%), followed by 2017 (5.8%) when it was the fourth most reported subtheme. Regarding this interpretation, it should be noted that for the 2016 design submission, designers were required to list the top three most relevant keywords in their abstracts among the eight keywords identified by the ITAA. Among those, Textile Innovation was one of the keywords that showed a dramatic increase in 2016 and continued to be a top reported subtheme in 2017. This trend is not just a one-time event, so it is expected to be further watched in future design scholarship submissions.

Considering Bye’s (2010) three approaches of design scholarship, it is obvious that keywords were predominately shared to adhere to the creative practice approach, which is initiated from a designer’s desire to express an idea or simply create. Limited design practices were identified for problem-based design research and research through practice; however, the continuous increase of these two approaches have been noticed for the main themes of Technology and Sustainability, which indicates that more design scholars have started to use various design approaches in their design scholarship.
**Conclusion.** The keywords analysis for the ITAA professionals’ design proceedings showed the continuous use of keywords related to themes of Inspirational Influences and Apparel Design. The keywords analysis also indicated the continuous increase of Sustainable Practices compared with other main themes since 2009. Overall, this trend was relatively consistent with the trend in research journal articles. For example, when research articles including the word “sustainability” were searched through Google Scholar, there was a 193.7% increase in related research articles from 2009 to 2018. In spite of the requirement of including keywords, numerous ITAA design proceedings were found in which keywords were not provided or did not capture broader scope of their designs, which may hinder the dissemination of their work. The study further suggests design scholars need to include keywords that best capture their design scopes when submitting their design abstracts for the ITAA design exhibit.

**References**