

ABSTRACT

Scannable print technologies have expanded to reach various mediums, primarily in forms of quick-response codes, augmented reality, and near-field communication tags. This thesis is aimed to use a mixed method research approach to better understand the opportunities and challenges of scannable print technologies.

METHODOLOGY

- Social Media Review:** Three campaigns that used scannable print technologies were compared and analyzed. Each tweet was analyzed to determine the user's view of the campaign or the use of scannable technology (positive, negative, or neutral), and whether the tweet explicitly discussed the use of scannable print
- Online Survey:** A survey was made available to the public using Google Forms. Twelve questions were based on the Technology Acceptance Model (TAM). The mean was analyzed to understand the general perception of this technology by the participants

RESULTS

- The three campaigns each had search results that were mostly positive. However, there was little to no mention of the scannable component of the campaign
- 44.2%** surveyed confessed that they rarely made use of scannable print technologies
- Online Survey, Question 2:** What forms of Scannable Print have you interacted with?
 - Quick-Response (QR) Codes** – 90.8%
 - Augmented Reality (AR)** – 74.2%
 - Near-Field Communication (NFC) Tags** – 83.3%
- Online Survey, Question 18:** Do you want to see scannable print more widely available?
 - Yes – 66%
 - No – 5.8%
 - I don't know – 28.2%

CONCLUSION

There are many ways to improve its usefulness and generate a better sense of the technology in consumer minds. Companies are encouraged to develop creative approaches to integrate scannable print technologies in their product packaging to create an engaging and interactive experience with the consumer.

SCANNABLE PRINT TECHNOLOGIES

UNDERGRADUATE RESEARCH PAPER

LITERATURE REVIEW

- Quick-Response (QR) Codes** are an evolution of the UPC code (Soon, 2008) that can be scanned using mobile devices to guide the consumer to online and offline digital content (Okazaki et al., 2012)
- By using computers, such as smartphones, **Augmented Reality (AR)** allows viewers to see on-screen images interact with tangible objects in real life (Van Krevelen & Poelman, 2010)
- Near-Field Communication (NFC) Tags** are an evolution of radio-frequency identification (RFID) tags that allow "short-range wireless communication" between two terminal points (Coskun et al., 2015, p.13348)

DISCUSSION

- Scannable print technologies should be applied more thoughtfully to improve usefulness
- Scannable technologies should be unified to improve ease of use. If technology becomes completely integrated into the daily lives of consumers, it should become as accessible as possible

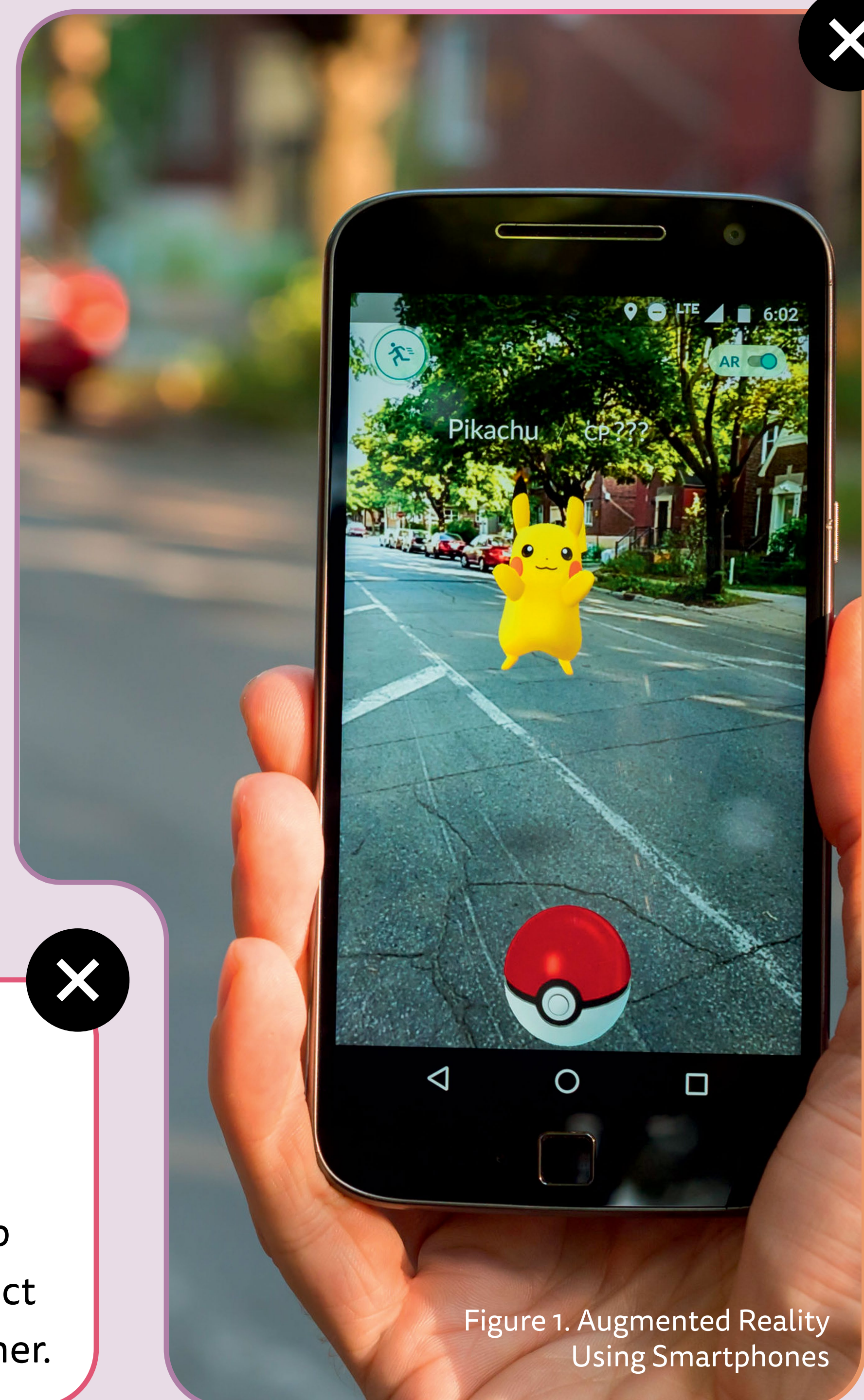


Figure 1. Augmented Reality Using Smartphones