PRACTICING ANTHROPOLOGY

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Articles and Formatting

Articles should be written in an interesting style that maintains the reader's attention. The length should be no more than 12 doubled spaced pages each, or about 3,500 words including all bios, references and other materials. References to the literature should be avoided and, if used (only sparingly), inserted in the body of the text as in (Mendoza 2004). Titles should be no longer than sixty characters.

Authors should submit a one paragraph bio with each article. The bio should contain the author's affiliations, research activities, education, addresses (email and contact info), and applied interests. Submissions should also be accompanied by 2 or 3 relevant images with captions. Photos should be sent by email in the .gif or .jpeg format. In addition to the article, bio and photos, authors should submit a 100-150 word abstract and 3 key words.

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We encourage you to visit the *Practicing Anthropology* blog at https://practicinganthropology.sfaa.net/ for up to date information on guidelines for authors, blog posts about recent articles, and news items of interest.

Deadlines

Please contact editor Dr. Lisa Jane Hardy, Northern Arizona Univeristy, at practicinganthropology@gmail.com for more information on upcoming deadlines. We accept individual submissions on a rolling-deadline basis.

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WEARABLE TECHNOLOGY AND CULTURAL NARRATIVE: AT THE INTERSECTION OF HEALTH AND HISTORY

By Michelle Cooke and Judy Goforth Parker

Abstract

Wearable technology has become a daily part of our lives. This technology is used to monitor such things as our heart rates, our sleeping patterns, and the number of steps we take. In fact, tracking steps is one of the most popular uses of wearable technology. But what motivates people to walk? In 2015, the Chickasaw Nation began working on a first-of-its-kind interactive walking application through our department of health, our department of culture and humanities, and our department of communications. The goal of this application was to encourage Chickasaw citizens to increase their walking habits through narrative motivation. As users walk, they unlock stories that are based on the history of the Chickasaw people. AYA is an intervention in health promotion and disease prevention. Our goal is to improve the lives of our citizens, and the app is one method we use for health promotion and disease prevention.

Key words: wearable technology, quantified self, Chickasaw, cultural narrative, exercise promotion

Aspects of Technology and Health

In the season we are in, with the current pandemic caused by COVID-19, health care has changed and will likely stay altered as technology evolves and health visits are increasingly becoming virtual. Wearable technology (WT) is an important development in the industry of medical advancements and will be an enhancement in the environment of virtual visits. These devices have been around for decades (Cicek 2015). They will play an acceptable role in health care and even represent a promising intervention tool as we continue to adapt our health delivery systems (Riffenburg and Spartano 2018). Wrist-type smart devices are being worn by our patients, and health care-related technologies that utilize them as a data collection source are increasing. These wearable devices, as equipped with a communication function, acquire biological signals useful to the wearer and anyone with which they share their data. User preference of this technology is high and likely to increase (Cho 2019). It could be that the transition to fashionable devices has been a factor for consumers to be willing to utilize WT. In addition, the revolutionary rise of smartphones together with today's near-constant availability of the Internet has only heightened access to the health care delivery landscape through wearable technology (Gimpel, Niβen, and Görlitz 2013).

Wearable Technology Defined

Wearable technology is an application-enabled computing device that accepts and processes data in the form of inputs (Cicek 2015). This wearable technology comes in three main categories: health technologies, textile technologies, and wearable consumer electronics. In health care, we have long been comfortable with a patient being assessed for cardiac evaluation by a wearable device that monitors heart rate, temperature, oxygen saturation, and other health data from the patient. Examples of textile technologies include clothing that monitors temperature and even indicates mood. Wrist-type smart devices are probably the most popular, and health care technologies are using them increasingly (Cho 2019). Because these devices can be worn in several places like wrists, legs, belts, and other body parts, their use will only increase (Riffenburg and Spartano 2018).

Recently, smartwatches have identified the onset of increased heart rates or tachycardia. Wearable devices are among the most important consumer products that have evolved with the continuous development of technology in health care. They can provide feedback to the wearer and care providers at the same time. Wrist devices are used widely in the health care arena, as this technology continues to advance (Cho 2019). To be certain, the line between consumer wearable technology and medical devices is beginning to blur, and health care providers are using this to promote health care in a positive light.

Innovations in Health Care Using Wearable Technology

Since the advent of wearable technology devices, society has continued toward quantification of our daily lives. Wearable technology is viewed as an intervention to improve health in areas like weight loss, exercise, and mental wellness promotion, to name a few. The use of WT has doubled from 2014 to 2016, and will continue to increase. Data collected has shown improved health outcomes that range from lower hospital readmission rates to reduced cardiovascular events in surgery. Additional positive outcomes include decreases in blood pressure and reduced body mass index (Bove 2019). Data collected from WT used as a secondary diagnostic tool can be shared with health care providers. This is a plus to the industry at a time when it is needed most, as we move toward an increase in virtual visits. Wearable technology has become a viable

tool to provide clinically sensitive data for informed patient assessment (Godfrey et al. 2018). The data also gives instant feedback to wearers so that they can alter their activities and incorporate meaningful lifestyle changes.

Recent research has revealed that WT can be used to promote behavior change (Riffenburg and Spartano 2018). Several studies have shown that pedometers are associated with increases in physical activity. Articles about sports medicine also point to WT as a leading trend in the sports field (Scheid and West 2019). Patient encounters involving WT range from hypertension, obesity, and interventions to improving the health of sufferers of post-traumatic stress disorders and other forms of mental wellness diagnoses. (O'Hara 2019; Swallow 2018; Yingling et al. 2017). The examples continue to mount, as more fields of health care use creative mechanisms to reach out to their patients virtually.

Quantified Self Movement

Another phenomenon in this technological revolution is the appearance of quantified selfers (QS). Quantified-selfer movements started as an attempt to define the use of personal fitness trackers, and the concept has continued to expand while our culture quantifies more aspects of our lives through WT. Quantified selfers use the data they collect for quantification of mood, amount of sleep, and aggregate steps to potentially change their habits (Bove 2019). The question is: what motivates a person to continue to seek these behavior changes? Does the continued quantification serve as the stimulus to stick with a habit, and is there something that can be added to the trackable device that would encourage one to continue with the desired behaviors to reach a hoped-for outcome?

The quantified selfers movement, started by Wolf and Kelly, occurred as more gadgets were developed that were capable of self-tracking (Wolf 2009). With that in mind, we began to wonder if we could quantify steps for our tribal members and improve their health while motivating them to walk. We surmised that the development of an app that would replicate the miles our tribal members were forced to walk more than 100 years ago from our Mississippi homelands to Oklahoma could be a motivational tool in this self-quantification and wearable technology era. Little did we know that we were about to enter into the quantified self, wearable technology world of algorithms to improve the health of Chickasaws and anyone else using our app, called AYA.

AYA Walking Characters

Introduction of AYA

In 2015, the Chickasaw Nation began working on a first-of-its-kind interactive walking application through our department of health, our department of culture and humanities, and our department of communications. The goal of this application was to encourage Chickasaw citizens to increase their walking habits through narrative motivation. AYA, which means "to journey" in the Chickasaw language, is a way to integrate our cultural narrative with wearable technology. Through their journey, users learn about geography, origin stories, oral histories, dances, language, dress, family hierarchy, war traditions, food traditions, Oklahoma history, and Chickasaw history.

First Set of Characters

The first set of walking characters is composed of five fictional Chickasaw characters: Akan*o*wa, Hikatubby, Mah Wah Ta, Solomon, and Eliza. They are from three time periods and are related to one another. Akan*o*wa is an elder from the 1500s; Hikatubby is a Chikasha warrior from the mid-1500s; Mah Wah Ta, age 29, and Solomon, 32, are both from 1837; and 12-year-old Eliza is from 1907. Each character unveils a story and historical facts about their time period as the user walks their path that equals 444 miles, or the distance from Tishomingo, Oklahoma, to Tupelo, Mississippi, in the Chickasaw Homeland. The path represents the aggregate of the routes the Chickasaw people took during their forced removal from their Homeland to Indian Territory, now Oklahoma.

If storytelling isn't enough to keep the user engaged, AYA includes badges awarded periodically as they walk. These are items like Chickasaw words, with audio recordings to teach and thus help preserve our language, Chickasaw prayers to read and listen to for encouragement, and Choctaw hymns. Additionally, there are what we call "stumble-upon" items. They are historically accurate items that the user randomly "stumbles upon" as they walk and include plants, animals, and objects from the character's time period that incorporate encouraging messages and/or historical information. For example, one may stumble upon an eagle feather and learn how and why the Chickasaws used them for ceremonial purposes.

AYA Walking Characters

Users follow their progress on a map as they come to points of interest on their journey that tell them about places our Chickasaw ancestors visited on their way to Indian Territory. All the words, Chickasaw prayers, and points of interest are banked for the user to revisit any time. The points of interest are accompanied by audio so the user can hear the text as well as read it, thereby continuing our narrative orally, a traditional way that we shared our history and stories.

To examine the intersection of wearable technology and cultural narrative, we must first understand the relationship narrative has with users. People are storytelling creatures and, through narrative, one can learn about a people's history, culture, and language, among other things. In their book *The Life of Texts: An Introduction to Literary Studies,* Ann Rigney and Kiene Brillenburg Wurth (2019:259) ask, "Why do we become enthralled by narrative? The power of stories seems to come from their ability to invite us to share in a virtual way in the trials and tribulations of people whose lives are under pressure and whose futures are uncertain." Literary studies are blending with cultural and historical studies, which causes the narrative to be interpreted in cultural and historical ways. "A cultural narrative tells the story of a people. Individuals in that culture will live out or write variations on a basic cultural narrative" (White n.d. para. 8). This is what AYA does for users. Through historical fiction, a cultural narrative is established. Its stories revolve around the culture and history of the Chickasaw people. Through this type of narrative, people can learn about their ancestors and, in response, feel a connection to them. They begin to own their histories. "Narrative allows us to enter empathically into another's life and being—to join a living conversation. In this sense, it serves as a means of inclusion, inviting the reader, listener, writer, or teller as a companion along on another's journey. In the process, we may find ourselves wiser, more receptive, more understanding, nurtured, and sometimes healed" (Goodson and Gill 2011:118).

In their article "A Model of Effects of Narrative as Culture-Centric Health Promotion," Linda Larkey and Michael Hecht assert, "Health promotion interventions designed for specific cultural groups often are designed to address cultural values through culturally adapted messages. Recent trends in health promotion incorporate narrative theory, locating culture within the narratives of cultural members, and suggesting that narrative may provide a central, grounded medium for expressing and shaping health behavior. We suggest that culturally grounded narratives are a natural choice for identifying and shaping health messages for specific audiences" (Larkey and Hecht 2010:114). Through AYA, we can incorporate health promotion via cultural narratives thereby promoting improved health behaviors by encouraging users to walk more to hear more stories. The storytelling, or narrative, also serves to strengthen one's cultural identity by connecting them with past history, language, and prayers. Additionally, we have worked to embrace a larger audience by varying the ages and gender of the fictional characters such as Silas, a male law enforcement character, and William, a young boy on a cattle trail. The characters currently consist of men, women, elders, and children. We even have plans to include a dog as a walking partner.

Feedback from a User

Chickasaw citizen Ashley Wallace has been using AYA for almost three years. "It's a great source for your health, for your cultural connection. It's very good. I've been through the first set of characters four or five times. Then I've been through the most recent set of characters a couple of times" (personal communication December 4, 2020). Before the restrictions the COVID-19 pandemic placed on our lives, Ashley was going to the gym during her lunch hour to walk. Now she uses her lunch hour while working from home to get her steps in. She enjoys walking with her family and has made AYA part of their routine. Her favorite parts are the stories

and reading about the landmarks. With the new set of characters (located in the Chickasaw Nation), she enjoys learning about places she frequently visits. "I do like to get the language words because I don't use language every single day, so there are some things I don't remember. Once I get a word, I try to use that in my daily life with my kids. [The app] is a way to connect yourself with being Chickasaw, a way to connect yourself with being healthy, and a way to get you involved with both of them at the same time. You can't get stories without being active, so it goes hand in hand."

AYA as an Intervention

Where do we go from here? AYA has enjoyed many new features and experienced thousands of downloads with walkers. Linked with the digital devices is the personal informatics systems of the technology, which is used for motivation applied either through reminders or gamification (Harrahi Jarrahi Gafinowitz Shin 2018). Gamification in AYA is present in the forms of interacting in challenges, encouraging fellow walkers, opening cultural stories as well as the beauty of the culturally correct artistry. We believe WT is not just a fad but a part of modern life that will help change the lives of wearers going forward (Cicek 2015). More research will need to be done to understand what factors motivate providers and patients to use WT for health promotion (Runkle et al. 2019). We are in a technology-driven environment with a growing number of wearable devices used in health care. We can think ahead and continue to look at these devices as a part of the health care landscape and an innovative way to motivate health promotion. These devices provide a setting for reinforcing personal goals through various forms of motivation.

Many people are motivated to run because it improves their health, while others need "bells and whistles" to encourage them along the way. The bells and whistles come in the form of tricks others would call games. One walker's trick may be finding the next "stumble-upon" in our app, while another will look for a timely prayer. Regardless, our goals have been reached as our patrons continue to daily walk. It is a win for both the consumer and the creators of AYA.

Summary and Future Steps

AYA is an intervention in health promotion and disease prevention and a part of the health policy of the Chickasaw Nation. Our goal is to improve the health of our citizens, and the app is one method we use toward that goal. Although AYA is unique and a prototype with two years of use, the proliferation of various forms of activity trackers is an indication that we are a part of a self-tracking industry that is here to stay. The innovative technologies used during the pandemic of 2020 opened up an era that will keep us looking for motivational strategies that will help users in their health promotion goals (Engedal 2015).

References Cited

Bove, Lisa Anne
2019 Increasing Patient Engagement through the Use of Wearable Technology. The Journal of Nurse Practitioners 15(8):535-539.

Cho, Jaegeol
2019 Current Status and Prospects of Health-Related Sensing Technology in Wearable Devices. Journal of Healthcare Engineering. URL:<https://www.hindawi.com/journals/jhe/2019/3924508/> (June 11, 2020).

Cicek, Mesut
2015 Wearable Technologies and its Future Applications. International Journal of Electrical, Electronics and Data Communications 3(4):45-50.

Engedal, Jan Øyvind
2015 Gamification – A Study of Motivational Affordances. Master thesis, Department of Computer Science and Media Technology, Gjøvik University College.

Gimpel, Henner, Marcia Niβen, and Roland A. Görlitz
2013 Quantifying the Quantified Self: A Study on the Motivation of Patients to Track Their Own Health. Thirty Fourth International Conference on Information Systems, Milan, Italy.

Godfrey, Alan, Victoria Hetherington, Hubert P. H. Shum, Paolo Bonato, Nigel Lovell, and Samuel Stuart
2018 From A to Z: Wearable Technology Explained. Maturitas 113:40-47.

Goodson, Ivor F., and Scherto R. Gill
2011 Narrative Pedagogy: Life History and Learning. New York: Peter Lang Publishing.

Jarrahi, Mohammad Hossein, Nicci Gafinowitz, and Grace Shin
2017 Activity Trackers, Prior Motivation, and Perceived Informational and Motivational Affordances. Personal and Ubiquitous Computing 22:433-448.

Larkey, Linda K., and Michael L. Hecht
2010 A Model of Effects of Narrative as Culture-Centric Health Promotion. The Journal of Health Communication 15(2):114-135. URL:<https://www.researchgate.net/publication/43135975_A_Model_of_Effects_of_Narrative_as_Culture-Centric_Health_Promotion> (June 10, 2020).

O'Hara, Delia
2019 Wearable Technology for Mental Health. American Psychological Association. URL:<https://www.apa.org/members/content/wearable-technology> (July 28, 2020).

Riffenburg, Kaitlyn M., and Spartano, Nicole L.
2018 Physical Activity and Weight Maintenance: the Utility of Wearable Devices and Mobile Health Technology in Research and Clinical Settings. 25(5): 310-314.

Rigney, Ann, and Kiene Brillenburg Wurth
2019 The Life of Texts: An Introduction to Literary Studies.