Finding a Future Beyond the Field: Exploring ICT-Mediated Practices of Student Athletes

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Abstract. Our preliminary research design explores the life of college student athletes and their use of information and communication technologies (ICTs) as they plan their transition beyond graduation. While ICTs such as social media, smartphones, and the internet are becoming more ubiquitous in college campuses, student athletes contend with finding ways to seek information in determining the optimal time to transition into professional play. To expand the literature on ICT use among student athletes, our exploratory study seeks to uncover factors that affect ICT use in both their athletic and academic environments. In collecting qualitative data through semi-structured interviews, our work aims to inform future design implications for ICTs used by student athletes.

Keywords: Student Athletes, ICTs, Human Factors, Transitions.

1 Introduction

According to a 2016 report compiled by the National Collegiate Athletic Association, approximately 480,000 college students compete annually on an athletic scholarship, but just 1.5% of American college football players and 1.1% of men's basketball players end up making it "pro," that is, playing in the major leagues.[5] College athletes who have not formulated a plan after college may experience transition issues when they enter the workforce. Thus, we aim to explore factors that contribute to athletes' information seeking needs in pursuing a career in playing revenue-producing sports such as football and basketball.

2 Literature Review

Previous researchers concentrated at the intersection of ICT, design, and fitness have taken a systems-driven approach to improving motion capture sensor technologies [1], animating athletic behaviors via control algorithms [2], and developing interfaces for augmented cooperative play [3]. We contrast this approach

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[5] http://www.ncaa.org/about/resources/research/estimated-probability-competing-professional-athletics

through a human-centered lens, reviewing prior empirical work that analyzed behavioral aspects underlying the decision making processes of ICT use across relevant athletic domains.

2.1 ICTs for tracking performance

Mueller et al. looked at how audio communication facilitates a deep sense of presence among runners who run together in real-time but at different locations [4]. In their qualitative interview study of runners (n=17) who tested a headset and a wireless heart rate monitor, they found that the creation of a social experience augmented the physical activity at hand. Puussaar et al. deployed a visual tool for social sensemaking of personal tracker data to understand how social context contributes to sensemaking [5]. In their sample of participants who met weekly across a 12-week focus group (n=20), they found that users tend to share their fitness data on platforms that alleviate privacy concerns and promote contextual value when displayed competitively. Ellis et al. interviewed seven former student athletes to generate insights for designing a wristband and web application that set up challenges among former team players [6]. In a design evaluation of former student athlete users (n=2), they observed how facets of camaraderie and competition developed over years of athletic training were sustained through their product, easing opportunities for post-athletic transitions.

2.2 ICTs for seeking social support

Stoldt surveyed members of the College Sports Information Directors of America (n=519) and found that social media significantly impacted how athletics programs communicated with external publics by increasing organizational transparency [7]. Sanderson conducted a thematic analysis of athletic handbooks from NCAA Division I member institutions (n=159) to understand how student athletes are getting informed on social media use [8]. He found that ambiguous language in social media policies of athletic departments send conflicting messages to student athletes. For instance, while student athletes are restricted from posting pictures of participation in illegal activities, they could interpret such statements to assume that such engagement is acceptable as long as they do not get caught and create a public relations debacle for the institution. Additionally, Sanderson thematically analyzed comments (n=514) from a blog owned by a contentious Boston Red Sox pitcher and discovered social support manifesting in ways that allow for athletes to preserve their reputation amid controversy while maintaining their support from fans [9].

2.3 ICTs for navigating life choices

Both the NBA and NFL require a player to be out of high school for a specified amount of time before becoming eligible to play a sport professionally [10]. This often forces high school athletes to make the decision to go to college until they

are eligible to declare for a professional career in their respective sport. Wong's legal analysis on providing guidance to student athletes in a regulatory environment claims that information could be made more accessible to student athletes and their families to shape crucial life choices, such as choosing to continue with higher education, finding an agent, maneuvering through healthcare options, or playing in the professional leagues [11].

3 Research Questions

In response to a dearth of literature that reports on how human factors of computing systems influence or implicate ICT use among student athletes, we ask the following:

- **R1**. How do ICTs enable information seeking practices of student athletes?
- **R2**. How are student athletes using ICTs to plan their long term goals?
- **R3**. What types of routines manifest among their ICT use?

4 Data Collection

We are currently in the process of collecting qualitative data from student athletes in the form of semi-structured interviews across three research institutions.

4.1 Participant Recruitment

One of our researchers works closely with the student athlete population at a research institution. Recruitment will employ multiple strategies in parallel: (1) reaching out to communications staff of athletic departments, (2) soliciting interview participation via social media, (3) distributing promotional materials around the campuses of three R1 institutions, and (4) snowball sampling for additional participants after each interview.

4.2 Interviews

Semi-structured interviews are a qualitative method of inquiry that combines a pre-determined set of open questions with the opportunity for the interviewer to probe particular themes or responses further [12]. The interview questions will collect data on factors of athletic motivation (group affiliation, team interactions), academic motivation (educational preparation, goal setting), external support systems (financial sponsors, peer socialization), and their outlook on professional development opportunities beyond college. Interviews will be conducted over a period of time until researchers have reached a point of saturation where no new themes emerge from the interview. We will transcribe the audio recording of each interview within 24 hours of meeting each participant and create a code book to summarize the most relevant findings we learned from each participant. We will analyze our qualitative data inductively through a grounded theory approach, and thematically analyze key findings each participant contributed to the study [13].

5 Summary

Our research design guides the direction of our forthcoming study that explores how ICTs enhance the experience of student athlete information seeking practices and inform decisions that impact their post-college future.

6 Acknowledgements

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