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Planes, Pucks, Automobiles:
Migration and Youth Hockey

Abstract

This project positions the professionalization of youth hockey as a small component of a much larger process of the "globalization" of sport. Youth hockey players have moved to Canada internationally and among Canadian provinces locally. This study traces the movement and advances of young players (ages 16-20), 1980-2012, of the London Knights (London, Ontario), tapping into already compiled data on players' team affiliation that many historians might overlook. This database shows an emerging pattern of transnational and internal migration among professional youth players.

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This essay, like Andrew Behrendt's "Little Data Streams to the Big Data River," will demonstrate the utility of data-driven analyses for more traditional historical practices. It is a reflection on how practicing digital scholarship can enhance research conducted by historians, even if said historians are novices in using digital tools. Being one such amateur, I hope to demonstrate in this essay how even a cursory engagement with digital tools can help reshape historical research, and make clear patterns and trends that would have otherwise remained murky. This essay will trace my first attempt at creating a database for my dissertation research, and will highlight how the newness of my engagement with these tools continually allowed me to rethink the people I study, and the questions I was asking about them. While my dissertation project is, more broadly, an analysis of the increasingly professional nature of youth hockey programs globally, from the early 1970s until the late 2000s, this essay focuses on a small portion of my research that examines youth hockey migration as a single facet of this process of professionalization.

This paper is focused upon my attempts to trace the movements of young hockey players over an extended period of time in order to demonstrate how migration is viewed as a tool of professionalization in youth leagues. Doing so will show how the concept of professionalization has shifted in meaning as professional leagues develop into larger, more global industries. Once, professionalization was considered to occur solely if payment for athletic labor was introduced to a league. Now, the concept of professionalization includes multiple features, such as the civic importance attached to professional players. Connecting the migration of adult, professional athletes to the movements of young athletes will highlight the increasingly professional nature of development leagues, and reject notions of youth sports as being simply entertainment and play. My research will examine how the distinction between youth and play, and adult and labor have blurred, and will attempt to demonstrate how these distinctions have been created, maintained, and reproduced by youth and professional leagues alike.

Notions of organized sport, play, and leisure are activities and concepts that have emerged within the last two centuries, and have come to hold an almost universal appeal.[1] In particular, sport is viewed as a positive force that provides health benefits, and is a fun, recreational experience.[2] However, this understanding of sport also limits a critical understanding of youth as labor within sport systems. Young players are rarely considered publically to be professional athletes. Instead, young athletes are aligned with an informal, amateur system, regardless of the time,

effort, and labor put into professionalizing. My research examines how the semi-professional system of youth hockey destabilizes naturalized understandings of youth involvement in sport as inherently recreational and divorced from ideas of youth labor and exploitation. What does youth mean if ideas of play and recreation are manipulated to maintain a system of cheap labor?

Research Background

Recognising migration as a feature of professionalization is a relatively new trend in academic scholarship concerning sports. Traditionally, professionalization is linked primarily to financial compensation. David Whitson and Donald MacIntosh, leading Canadian sports sociologists, understand professionalization as simply a transfer of effective control over the operations of a sports system from volunteers and amateurs to paid professionals.[3] More abstract notions of professionalization, such as the "degree of seriousness and importance given to it [sport] by the athletes, management, and spectators" highlight how professional sports stars are viewed as separate from amateur, youth athletes, in an intangible quality unrelated to fiscal compensation.[4] These understandings of what it means to professionalize a sport describe localized sporting industries, and local sporting legends. However, during the early 1990s academic studies concerning sports began to examine international connections between athletic institutions, focusing on the impact of globalization upon the sports industry.

Increasingly, scholarship recognized the migration of athletes across international borders in search of work or training opportunities as a feature of professionalization. Joseph Maguire and John Bale, renowned sport sociologists, published a collected volume of essays entitled *The Global Sports Arena: Athletic Talent in an Interdependent World*. In it, they examine the recent trend of athletic migration, and conclude that the movement of athletes internationally highlighted the intensification of sporting industries within a capitalistic society. Their work views the migration of sports talent as a unique feature of the late twentieth century, a recent development that added different dimensions to the process of professionalization. The ability, and want, to travel in order to play sport, was a new feature of professional athletes who grew up competing in an international marketplace.[5] My project will build upon Maguire and Bale's work, and highlight how migration can be used as a professionalizing tool in young development leagues that mirror the actions of adult, professional leagues.

The shift towards an international workforce is evident in the NHL. For decades, the NHL was dominated by Canadian players. In the 1960-61 season, 96.2% of the players in the league were Canadian. One Welsh and five American players filled out the 158-man roster. Fifty years later, in the 2010-11 season, Canadian players made up just 53% of the total NHL roster. The next most significant contributors were the United States, with 24.2% of the players. Sixteen European countries and Kazakhstan comprised the final 22.8% of the league. A total of 978 players skated in the NHL that season. This drastic shift in NHL player demographics highlights two trends occurring at the highest level of professional hockey. First, the expansion of the NHL in teams and roster space increased both the demand for players, and the actual number of players competing. Second, the labour pool from which the NHL recruited from expanded in order to fill out the teams. It became commonplace for prospective NHL players to move huge distances in order to play professionally in the most elite hockey league in the world. The continual flow of professional hockey players from one location to another firmly entrenched the practice of migrating as a tenant of professionalization that younger hockey players should mimic.

My project will argue that the migration of youth hockey players within Canada, and to Canada from abroad, indicates the professional nature of developmental junior hockey leagues. Although typically young hockey players are paid minimally for their labor and provided with room and board, I view their movements to Canada from

abroad and between Canadian provinces locally as a strong indication of the professional nature of these leagues. More so than the minimal compensation afforded to the young hockey players, migrating to compete in hockey reveals a fervent desire to become professional, to be considered "the best." The increasing need for young players to travel from their home in order to gain ice time, or play with a stronger team mirrors the changes occurring within the NHL.

The Road to Data Analysis

In order to understand the migratory patterns of youth hockey players, I needed to locate some key data points. Namely, how many players competed in development leagues? Where were these players born? Where did they move to? How many times did they move? How long did they stay in the development leagues? These questions were both incredibly broad in nature – how could I look at all the development leagues for hockey players? – and also highly specific. The first step I took to make my project more manageable was to focus on a single development league located in Canada – the Canadian Hockey League (CHL).

The CHL is the overarching umbrella organisation that represents the three top Canadian-based major junior leagues - the Ontario Hockey League (OHL), the Western Hockey League (WHL), and the Quebec Major Junior Hockey League (QMJHL). My focus upon Canadian major junior hockey represents the emphasis placed upon the CHL by professional leagues, such as the NHL.[6] The CHL has long been understood as the highway to the NHL – a direct pipeline of talent from Canadian towns and cities to the big league. Roughly 53% of all NHL players in the 2015 season competed in the CHL. Researching this league also meant researching hockey-playing youth at the junior level of hockey competition, from the ages of 16 to 20, when players must make choices regarding their professional futures in the sport.

As I began to investigate the migration of junior hockey players, I became frustrated by the traditional historical methods and approaches to the questions that I wanted to answer. How could I assess the relocations of youth hockey players over an extended period of time without a full and complete spreadsheet showing these movements? Textual documents and oral history can articulate the thoughts and feelings of the players, coaches, administration, and fans involved in youth hockey leagues. They can illuminate structural patterns in league management and administration, and demonstrate the impact of youth hockey programs upon individual or community participants. While integral to my project, these sources do not fully answer my research questions. They provide an understanding of how structural changes impact individual lives, but cannot locate the specific data points I needed to trace the migratory movements of these young players.

Quantitatively tracing hockey players' migration patterns over an extended period of time demonstrates the impact of the NHL's recruitment practices upon youth hockey leagues. While I can wax lyrical over the pressure placed upon these young players as they are traded and sold by the teams that own the players' rights, I believe that showing in a descriptive and visual manner how far these players have travelled, and how often they moved will demonstrate more fully the intensifying conditions of professionalization over an extended period of time.

To do this, I plan on constructing a data set that traces the movement of CHL players from 1970-2010. For this project, I focus upon only the OHL, and, within the OHL, my data collection is limited to a single team, the London Knights from London, Ontario. The decision to focus upon a single team was made for two reasons. First, for time management purposes. This project is my first foray into the digital humanities and data mining. I felt that I needed to collect a smaller sample of data to test various digital tools and methods before undergoing an intensive and long-term period of data collection. Although this means that I am hesitant to extrapolate my dataset to wider

conclusions, it did allow me to test a number of methods before figuring out which best suited my research plan. Second, choosing the London Knights was deliberate. The team has existed since 1965, which provides me with an uninterrupted narrative of how team demographics changed over a long period of time. Furthermore, the London Knights has consistently been competitive in the league, and has provided a number of players to the NHL. The changes occurring in the team would be representative of the changes occurring throughout the league, as the Knights continued to adapt to the shifting standards of recruitment and training of the league in order to remain competitive.

The data is drawn from the website www.hockeydb.com. The data compiled on hockeydb.com is embedded into the display of the website, which meant that I was unable to directly download the data. To begin with, I manually copied and pasted each individual record I wished to have in my larger flat excel file. I continued to do so for roughly three months – just copying and pasting information into a single, flat excel sheet.

It was not until talking to colleagues in the Digital Scholarship Services department located in Hillman Library at the University of Pittsburgh that I became aware of data scraping, and how I could use tools like Kimono to my advantage. Kimono is a web scraping tool that you do not need to write code or install any software to use. Instead, you simply add the Kimono bookmarklet to your browser's bookmark bar, and select the Kimono icon to select the data you wish to extract. Finding this tool completely changed the way that I collected data. It made the process faster, it eliminated the need for a single, large, unwieldy excel file, and it was a time-effective way to gather the data I needed without having to learn coding or scripts. Using Kimono, I created a flat excel database. In it, I listed the name of each player competing for the London Knights for each season, the player's date of birth, location of birth, and the page URL for each player.

Excel Spread Sheet Example

SEASON	PLAYER NAME	DATE OF BIRTH	PLACE OF BIRTH	PLAYER URL
1968-69	DARRYL SITTLER	18/09/50	KITCHENER, ONTARIO	http://www.hockeydb.com/ihdb/stats/pdisplay.php?pid=4985
	JOHN GOULD	15/01/47	ALLISTON, ONTARIO	http://www.hockeydb.com/ihdb/stats/pdisplay.php?pid=1984
	BOB ROSELLE	17/10/50	MONTREAL, QUEBEC	http://www.hockeydb.com/ihdb/stats/pdisplay.php?pid=10939

In a separate CSV file for each player, I listed the player's name, every season they played, every team they competed with, and the league this team is located in.

CSV Example

season	team.text	team.href	league
1967-68	London Natic	http://www.	OHA
1968-69	London Knigl	http://www.	OHA
1969-70	London Knigl	http://www.	OHA
1970-71	Toronto Mar	http://www.	NHL

This step was the initial collection of data. Many of the issues I experienced at this very low level of data collection were due to inexperience and lack of knowledge. Understanding how collecting and modelling data could further my research, and actually putting my ideas into practical actions were two very separate steps. Towards the end of my data collection stage, I was somewhat at a loss as to what to do with the small amount of data I had managed to extract. How could I connect the player's individual CSV files to my larger excel spreadsheet? Furthermore, how could I actually make the data demonstrate the increased migratory trend over time? Once again, it was only after talking to individuals with much more expertise than my own that I was able to see the advantages of transferring my data into a relational database.

It became clear that my data existed in a relationship in my mind – that simply having the data compiled was not enough to answer the questions concerning the increasing professionalization of the CHL over time. A relational database contains multiple tables that all connect to each other, and examines the relationship among entities. Entities are small pieces of data that can be broken down into organized tables, which are then linked back together by creating a relationship between the different tables.[7] The relationship between my entities is fairly basic – what players competed for what team, and when, and so my relational database will be a one-to-one relationship. I am currently at this stage in my project – compiling and transferring data into my relational database.

Concluding remarks

This essay had two primary goals. First, to demonstrate how the migration of young hockey players can be seen as a feature of professionalization. Second, to trace the logic behind deciding to embark upon a digital project in order to prove the relationship between hockey labor migration and professionalization. At this stage, with the small amount of data collected, and with my relational database still under construction, I will refrain from conducting any analysis on my incomplete dataset. Instead, I will assess how undertaking data collection and modelling has reshaped the questions I was asking about my research, and challenged the way that I view traditional historical research.

I was surprised by how difficult I found it to refer to the young players I research as data. The empiricism of data-driven collection and modelling seemed, to begin with, at odds with the principles of humanistic inquiry. How would transforming players into numbers help uncover questions about the experiences of competing in youth leagues? I came to recognize that data is not the object of study itself, but only a partial representation.[8] That is, the collection of data concerning the movement of these players did not obscure the individuals. It would instead represent the players' movements across supranational boundaries, and highlight large-scale trends in a way that my micro-level analysis, utilizing oral history and archival documents, could not offer.

I believe that it was important that I only sought the use of digital methods once I had found a question in my research that could not be answered by traditional historical methods. Having the clear and specific goal of collecting data that would show the migration of young hockey players competing in development hockey leagues meant that while there was long periods of trial and error, each step was undertaken to further my own research. I never felt that I was chasing my own tail, or simply inserting the digital into my work unnecessarily. Far from it – experimenting with digital tools and data collection only made me appreciate how utilizing differing methods of analysis, like archival research and data scraping, can be used in harmony with one another.

However, after realizing how easily data-driven collection would work alongside more traditional historical methods, I became frustrated with the lack of access and knowledge available to historians about these tools. It seemed as though there was an invisible wall separating my research from the work being done by digital specialists,

and the methods and tools they used were shrouded in mystery and intrigue for historians like myself. This was, obviously, not the case. Collaboration with the Digital Scholarship Services department was easy, and extremely rewarding. It was difficult, however, to understand who to ask and where to go at the beginning of my research. I had no idea how to undertake the simplest of tasks – like organize my data, or create a spreadsheet that could be imported into a relational database. It was only through the help of other, more specialized colleagues that I was able to begin to understand how I could go about collecting my data in an efficient and time-effective manner. It is my hope that projects like the open-access and crowd-sourced CHIA (Collaborative for Historical Information and Analysis) database will encourage greater cross-discipline interaction, and remove some of the hesitance historians feel about using digital methods.

NOTES

[1] Taylor, *Sport and Recreation: Economic Analysis,* (Spon Press, 1985); J.A. Mangan, *The Games Ethic and Imperialism: Aspects of the Diffusion of an Ideal,* (Harmondsworth, UK: Viking Press, 1986); Jeffrey Hill, *Sport, Leisure, and Culture in Twentieth Century Britain,* (Basingstoke, UK: Palgrave, 2002).

[2] See: Michael A. Mesner, *It's All for the Kids: Gender, Families, and Youth Sports,* (Berkeley, CA: University of California Press, 2009).

[3] David Whitson and Donald MacIntosh, "Rational Planning vs. Regional Interests: The Professionalization of Canadian Amateur Sport" in *Canadian Public Policy,* Vol. 12, No.4 (Dec. 1989).

[4] Jonathan J. Brower, "The Professionalization of Organized Youth Sport: Social Psychological Impacts and Outcomes" in *Annals of the American Academy of Political and Social Science,* Vol. 445, (1979).

[5] Academic literature that deals with the trends of professional, adult hockey players migratory patterns is scarce, but Colin D. Howell (ed)., *Putting it on Ice, Volume II: Internationalising Canada's Game,* Halifax, N.S.: Gorsebrook Research Institute, St. Mary's University, 2003 and Tobias Stark, "How Swede It Is: Borje Salming and the Migration of Swedish Ice Hockey Players to the NHL, 1957-2012" (paper presented at *The Hockey Conference, 2012: Putting it on Ice, Volume III: Constructing the Hockey Family,* St. Mary's University, Halifax, Nova Scotia, July 12-14, 2012) each show when, how, and why these hockey players started migrating.

[6] The importance of the CHL as feeder teams to the NHL cannot be understated, although there are significant concerns over the possible erosion of the traditional prominence of the league as US universities with NCAA Division 1 teams become more competitive in the recruitment of young hockey players. See: William Houston, "Decline in skills evident at all levels: From the NHL to youth hockey, the emphasis on toughness and winning has devalued creativity". *The Globe and Mail*, May 12, 1997; "Hockey needs new plan to meet tough challenge". *The Globe and Mail,* 1997; Marc Bianchi, "Guardian of Amateurism or Legal Defiant? The Dichotomous Nature of NCAA Men's Ice Hockey Regulation". *Seton Hall Journal of Sports and Entertainment Law,* Vol. 20, No, 1, 2010.

[7] Cris Ippolite, "Introduction to data modelling" from "Relational Database Design with FileMaker Pro with Cris Ippolite:" http://www.lynda.com/FileMaker-Pro-tutorials/Introduction-data-modeling/83839/88074-4.html

[8] Chistof Schöch, "Big? Smart? Clean? Messy? Data in the Humanities" *Journal of Digital Humanities* Vol. 2, No. 3, (Summer, 2013).