

The high-performance fencer's equipment purchases: Serendipitous social berrypicking and cognitive self-autonomization

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Abstract

This study sought to explore how high-performance fencers make decisions when purchasing equipment. Three university students who regularly participate in high-level tournaments, ranging from the national to Olympic level, were interviewed using the Information Horizon Interview method, creating Information Horizon Maps to accompany their interview responses. This research represents a new branch of the library and information science literature, branching off from the currently underrepresented fields of sports hobbies and serious leisure activities. From the data, two models of information behaviour were proposed: serendipitous social berrypicking and cognitive self-autonomization. These models could possibly be extended to future research concerning fencers and other athletes in niche sports. The findings emphasized the influence of the social world on high-performance fencers' equipment purchasing decisions.

INTRODUCTION

I have been fencing since 2011, the first year of my undergraduate degree, and remain a passionate member of the Ontario fencing community, so when choosing a topic of study for this research, fencing was a natural fit. At my first tournament, I barely knew how to put my pile of equipment on correctly, and when I saw the other fencers' equipment, I thought, "What happens when I need to buy my own? How am I ever going to figure all of this out?" Now, I am much less overwhelmed, having uncovered the methods of information seeking that worked best for me. I became curious about the methods that other fencers use to acquire similar information. What about those with much more experience than I have? *How do high-performance fencers make decisions when purchasing equipment?* This became my research question. I decided to interview those who, other than the level of performance, were of a similar demographic to myself. They would all be Canadian university students on their school's varsity team, who are currently competing regularly at national-level tournaments and above.

After three half-hour interviews, some common themes emerged. I will examine the results of the study through two themes that arose through inductive thematic analysis: the serendipitous social berrypicking that influences eventual equipment-purchasing decisions, and the long-term collection of information in a process that I have called "cognitive self-autonomization".

LITERATURE REVIEW

Fencing is unsurprisingly unrepresented in the library and information science literature. I sought instead to investigate the literature surrounding the purchasing of sports equipment in general, but found little more. In Hartel's 2010 study, *Leisure and Hobby Information and Its Users*, she states that "...sports hobbies are relatively unknown," and then tentatively outlines some possible information behaviours based on previous studies in hobby gaming, such as rules "codified in handbooks and learned by all participants to maintain fair play" (Hartel, 2010). In the case of high-performance athletes, is fencing truly only a hobby? A serious leisure activity involves a "long-term commitment" to a "leisure career" (Hartel, 2010). A key aspect of serious leisure activities that Hartel lists are the resulting "social worlds", defined by Unruh as "a recognizable constellation of actors, organizations, events, and practices which have coalesced into a perceived sphere of interest and involvement for participants" (Hartel, 2010; Unruh, 1979). As a fencer myself, this was a familiar-sounding concept; "serious leisure" is an accurate activity label for fencers who commit to their athletic development over a long period of time. The idea of the social world and its effects on equipment-purchasing decisions within the fencing community is further explored later in this study.

Despite Hartel's statement that the leisure field showed "promising trajectories for future inquiry" (2010), not much progress has been made regarding information behaviour in sports purchasing since then. The most notable writings on the subject come from a dissertation from the University of

Minnesota a few years ago (Yoo, 2014). In this study, Yoo examines a model for the online purchase of sports products. The sections on perceived usefulness and perceived ease of use of a system as determining factors for online purchasing, as well as users' trust in these systems, illuminate some of the information behaviours associated with this area (Yoo, 2014). However, the research does not seem to distinguish between consumers who are mainly sports fans and the athletes themselves. In addition, limiting the study to only online purchasing neglects the live social interactions that have the potential to influence consumers equally or more than online vendors.

With this study, I seek to address some of the “innumerable unanswered questions” in the leisure field that Hartel describes (Hartel, 2010).

RESEARCH METHODS

Data was gathered using the Information Horizon Interview method, first defined in Diane Sonnenwald's study (2005). Three semi-structured interviews were conducted, in which a selection of predetermined questions was asked, with flexibility for follow-up questions built into the interview process based on the informants' answers. The interview guide used for Informant #3 (Donna) can be found in Appendix 1. This was followed by a drawing exercise where each informant would sketch their Information Horizon Map, detailing resources that they would interact with while researching fencing equipment (Sonnenwald, 2005).

As a fencer myself, I selected Bates's berrypicking as a sensitizing concept, wondering if others might pick and choose from different sources on their information-gathering quest – refining their question along the way – as I do when making equipment-purchasing decisions (1989).

I briefly considered excluding online purchases from the study, but since fencing is a relatively uncommon sport in Canada, I anticipated that this cutting point could exclude a large part of the equipment-purchasing process.

The informants were all Canadian varsity fencers in university, ranging from ages 19 to 37. Informants 1 and 3 are female, and Informant 2 is male. They all compete at the high-performance level, which is defined here as regularly competing at national-level tournaments and above.

Informant #3 introduced an interesting ethical concern. Donna Vakalis has competed in Modern Pentathlon at the two most recent Olympic Games. There was the possibility that even if her transcript was anonymized, references to her Olympic career would make it easy to discern her identity. After consulting with Professor Hartel, it was decided that, with Donna's permission, she would be referenced in this study by her true identity, as a public figure. It is unclear to

what extent this may have influenced her interview responses.

FINDINGS

Although I initially intended to look at the data through the lens of sensitizing concepts, models, and theories, I found that each one alone did not fully describe my data. Instead, I decided to look at the data through inductive thematic analysis to form my own models of information behaviour. I did find that each of these was connected to existing models and theories, or combined them, but I believe that the analysis was richer for having come to these conclusions through a more natural analysis of common themes in the data.

Serendipitous Social Berrypicking

My original sensitizing concept, the berrypicking model, primarily describes online searches (Bates, 1999). Although all fencers interviewed did mention online websites as a primary resource, they expressed that when going online they usually already know exactly what they want to buy. Although they often use the websites of equipment suppliers to make final purchases, those sites do not make significant contributions to the decision-making process, beyond cost comparison.

The other information resources mentioned were social. Over their fencing careers, they have surrounded themselves with people they trust to provide them with accurate information. Friends, coaches and armourers, and equipment vendors were all listed multiple times as valuable resources. These interactions mainly occur at fencing-related events – practices and tournaments.

There is an international governing body – the Fédération Internationale d'Esime (FIE) – that dictates rules and regulations surrounding equipment, but all participants had to be prompted before mentioning the FIE by name; they would often begin by referring to a mysterious “they” who dictate what is or is not acceptable at different levels. When asked directly to elaborate, one participant, Walter, seemed to come to a sudden realization of just how much the FIE influences his decisions. We can see in Figure 1 that he then included the FIE in his diagram, connected to other resources. The reason for this oversight seems to be that the fencers do not read these regulations themselves; requirements are taught and absorbed as part of their fencing education, any changes filtering down through interactions with friends, coaches, and referees.

They do not often actively search for any of this information. They may hear something in conversation, then mentally file it away for later, to draw upon once they need to make another purchase. The three aspects of decision-making that I have discussed combine to form a sort of *serendipitous social berrypicking*.

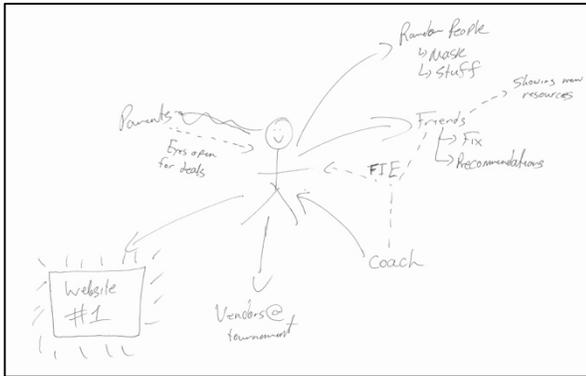


Figure 1. Walter's IHI diagram

Cognitive Self-Autonomization

It was difficult to pinpoint a cognitive authority within their social world that these fencers looked to for information. When asked about coaches, they generally said that, although they may have gone to them when they were beginners, they do not anymore. Although they discussed how interactions with others in the fencing community inform their decision-making, fencers also expressed a distrust of these sources in certain situations, for example, Robin's dad's distrust of a former coach's advice. Walter prefers a physical experience with a potential new blade, rather than hearing about it from a vendor.

The filing away of information over many years has made high-performance fencers into their own cognitive authorities. They have fashioned themselves into living, evolving, human libraries of fencing information, including equipment expertise, in a process I call *cognitive self-autonomization*. A good example of this is Donna. We can see in Figure 2 that her map is essentially a flow chart of her own thought process. The other sources listed are mostly where she plans to acquire the equipment itself, rather than the information to make the decisions, which she mostly already knows from years of experience. Any external information resources had to be investigated through follow-up questions after the drawing exercise.

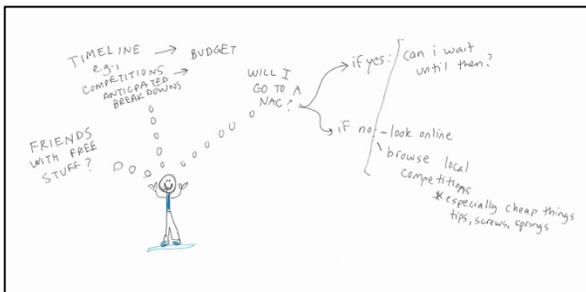


Figure 2. Donna's IHI diagram

At first glance, the exception to this model is Robin. Her dad is her primary resource and she relies upon him for the majority of her information. However, we could also consider her father as an extension of herself in this scenario. As seen in Figure 3, she has drawn him the largest and in the centre of the map, where other participants placed themselves. If she did not have a close fencer family member whom she trusts as the others trust themselves, would she become the authority out of necessity? We cannot know that, but this aspect of her IHI diagram indicates that perhaps she is not such an exception after all.

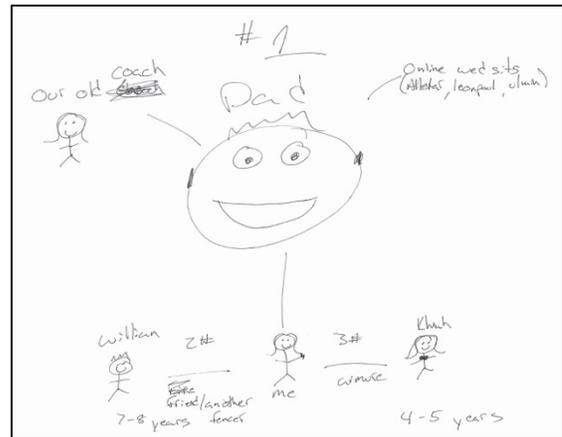


Figure 3. Robin's IHI diagram

DISCUSSION

The model of serendipitous social berrypicking draws upon three concepts from class readings and discussions: Bates's berrypicking, Unruh's social worlds, and Erdelez's information encountering (Bates, 1999; Unruh, 1979; Erdelez, 1999). I did not set out to combine these three concepts at the beginning, but as patterns emerged from the data, elements of each became apparent in the information-seeking process.

The model of cognitive self-autonomization takes Wilson's cognitive authority and re-centres it on the interview subject, making the high-performance athlete their own most-trusted resource (Wilson, 1983). This arose as a solution to my own difficulties pinpointing cognitive authorities within the high-performance fencers' social world.

As suspected prior to conducting this study, Yoo's research testing a model of the online purchase of sports products misses out on a complex social world whose impact on their decision-making, at least for these three fencers, is much greater than that of online vendors (2014). Yoo's research was focused on how to increase profits for online vendors (2014), but it is important to acknowledge that these websites may not be the greatest contributing factor toward making purchasing decisions. Especially for sports with relatively small communities, where a large portion of the

community gathers at a common set of events, this may be an avenue for directing consumers to their online stores that these vendors want to take advantage of, as many fencing vendors do already.

It would be interesting to see if the proposed models could be extended to other team sports, particularly other niche sports like fencing, to describe some of the information behaviours surrounding their social worlds. As Hartel has said, hobby sports and serious leisure activities have been neglected thus far in the LIS literature (2010). It is currently difficult to generalize even within the sport of fencing, since only three unique cases have been studied, and one (Robin) already shows an inconsistency with the model of cognitive self-autonomization. With further studies in the information behaviour regarding sports equipment purchases, these models can be tested and refined.

The social world of the fencer is crucial for their information-seeking process and their quest to build their own mental library of information. This network of fencers, coaches, armourers, equipment vendors, and others offers a rich source of study which has been neglected thus far. In this study, I feel I have barely scratched the surface of fencers' information behaviour regarding the purchasing of equipment. In future research, I would like to focus more on the social world, perhaps exploring the broader exchange of information amongst fencers in an ethnographic study. On the subject of equipment-purchasing decisions specifically, it would be interesting to see how the information-seeking process differs for beginner fencers just starting to develop their networks.

METHODOLOGICAL REFLECTIONS

A prominent issue that arose consistently throughout the interview process was the struggle to uncover the information resources that each fencer referenced when they sought to buy new equipment. Being experienced, high-performance fencers, their methods of information seeking were well-defined – they do not have to consciously think about where to find information anymore – and so they tended to focus more on what Hektor calls “life activities”, rather than “information activities” (Hektor, 2001). Most of the time, it wasn't until the mapping phase that they were able to focus in on the actual information resources that they referenced. The mysterious “they” became tournament officials and governing bodies as they were prodded to explain their maps. Perhaps it would have been more effective, in this instance, to introduce the drawing exercise earlier in the interview to focus their answers on information activities much sooner.

CONCLUSION

This study has surveyed several individuals within the world of high-performance fencing, with a focus on the

information behaviours associated with decisions surrounding the purchasing of equipment. It branches out into a new area of LIS research, building on a small set of studies regarding serious leisure and the online purchasing of sports products. The three Information Horizon Interviews and their corresponding diagrams have given insight into the complex social world of the fencer, giving rise to proposed models of serendipitous social berrypicking and cognitive self-autonomization.

A modification to the Information Horizon Interview method was suggested in cases where the subjects' familiarity with their own processes makes the elucidation of information behaviours more difficult for the interviewer.

This research emphasizes the importance of social worlds in sports research and the impact of these on equipment purchasing decisions. A fencer's community is important to them.

“I dreamed of having [my own wireless equipment] so I could just go out fencing wherever I wanted to, like in the forest with friends.” – Donna Vakalis

The results open up a world of possibilities for further research into the information behaviours of fencers and other athletes in niche sports, at all levels of performance.

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AUTHOR'S BIO

Sara Stonehouse (sara.stonehouse@mail.utoronto.ca) is a Master of Information student at the University of Toronto, in the Culture and Technology concentration. Her interests include the implementation and effective use of makerspaces in libraries and other educational settings, as well as the information behaviours and interactions of fencers and other athletes.

APPENDIX 1: Interview guide for Donna

Research question: How do high-performance fencers make decisions when purchasing equipment?

OPENING

Friendly greeting (rapport building): Are you looking forward to the tournament at Brock this weekend?

Introductory scripts and ethics: I am a graduate student under the direction of Professor Jenna Hartel in the Faculty of Information, University of Toronto. For a course on information behaviour, I am conducting a research study to better understand how high-performance fencers make decisions when purchasing fencing equipment. I have recruited subjects to participate in an "Information Horizon Interview" which will take approximately 30 minutes. Your participation in this study is voluntary. If you choose not to participate or to withdraw from the study at any time, there will be no penalty. During the research process, your responses will be audio recorded. The audio recording will be transcribed within one week and then destroyed. The transcript of this interview will be kept indefinitely and used for the purposes of a class assignment. The results of the research may be published. If you have any questions concerning this research study, you may email me at sara.stonehouse@mail.utoronto.ca or Professor Hartel at jenna.hartel@utoronto.ca.

Are you okay with the use of your real name as a public figure for the reasons I explained in our earlier email correspondence? Could you please confirm your age for me?

Technical explanation: Today's interview will be semi-structured, so I will ask some preprepared questions, but it will be more like a conversation. There are no wrong answers. For the purposes of the interview, I may ask you questions you might feel I already know the answers to as a fellow fencer. Please answer as you would to someone who does not know a lot about fencing already. I may take some notes throughout the interview, and I will also be using two

recording devices. There will be a small drawing component to the interview that I will explain later, but it's very informal. Is it okay if I start the audio now?

QUESTIONS

Grand tour questions (context): How did you get into fencing? What is your highest level of competition?

Mini tour questions (episode/event): Can you tell me about the equipment involved in fencing? Walk me through the process of getting ready.

Information/Red Thread questions: Please tell me about the last time you made a major equipment purchase. How has your process changed compared to when you first started fencing? How do you decide in which order to buy items? Are your equipment needs different depending on the level of competition? What happens if there is a problem with your equipment?

Information Horizon/graphical elicitation: One other thing that we're trying in this study is that we're asking people if they could draw what we're referring to as their Information Horizon or Information Horizon Map. You put yourself on this piece of paper, and then draw in the resources – they could be human or non-human – that you typically access when you're seeking information about your fencing equipment and the purchasing of that equipment. And if you could also talk about it while you're drawing it and indicate which ones you might go to first, or several simultaneously, or which ones you prefer, etc. I'll give you two colours to work with.

CLOSING

Ethics (privacy) and thanks: Thank you for participating! After the recording of our interview is transcribed, the audio will be deleted. Now that the interview is complete, can I please confirm again that you are comfortable with your real identity being used in this study? If you change your mind later, please let me know.

APPENDIX 2: Sample quotes with questions

Informant #1: Robin

Q: You mentioned [your dad's] a coach, does he have coaching friends that he talks to as well?

Robin: Not particularly, he's really...a researcher? Kind of? And he just looks it up all by himself ... we're from such a small town that there wasn't really that much other knowledge. There was the head coach that kinda taught him how to do it, and her opinions on it, but he didn't really trust those opinions. He wanted to find them out himself, 'cause he likes buying good quality stuff for the right amount of money.

Q: Do you find [your friends that you drew on your map] connect you to certain resources, or are they the primary resource?

Robin: I find it's more seeing what they use or what they like. It's more of a word-of-mouth type thing. ... "Oh yeah, I really like this mask, I've been using it this long." "This is the blade I love, don't use any other blade." "This is the handle that I like and I don't use any other ones." For [the armourer], it's like, "Oh yeah, those wires break all the time, I hate them." It's just stuff like that that you take into account.

Informant #2: Walter

Q: You mentioned that you might go in person to try something out? Do you talk to the vendors about the equipment?

Walter: Yes, I talk to them sometimes, more about little facts of the thing. As good as it is to just talk facts, because you get more information on what the thing is, I feel that you're actually doing a little bit of work in that thing. You know, [if] you're trying a new jacket, doing a couple of parries or lunges or whatever in there would be more beneficial than just talking with a guy. Especially for blades ... everybody has a different way that they like their blades.

Q: So, where do the FIE [Fédération Internationale d'Escrime – governing body] regulations fit into this? How do you find out what those are?

Walter: Usually that comes from people talking about it. So, in conjunction with friends and the coach talking about the new FIE regulations. And I guess that, in itself, would overarch everything, because that's the controlling body. If you don't have things that meet that code you can't compete. So, that's more what would control everything. ... That affects everything else in [my map].

Informant #3: Donna

Q: What was that experience like purchasing the blade and bell guards? Where did you get [them] from?

Donna: Well, I knew exactly what I wanted, and so I was just hunting online for the cheapest place to get that, and so I googled it ... sometimes, you know, you have a vague idea of what you might be looking for, like a general type of blade, but I knew specifically the blade and the bell guards that I wanted ...

Q: If you see something that you like and you've had before at a local competition, then that would be something to look at?

Donna: Yeah ... Vendors who go to competitions, too, are really providing additional service other than selling their things, 'cause they'll often offer you advice or be able to repair weapons ...