

Speaker	Content
Martha Attridge Bufton (Martha)	Hi, I'm Martha Attridge Bufton. I wouldn't call myself a gamer but I do like to play card games like crib and euchre
Colin Harkness (Colin)	Hi, I'm Colin Harkness. I've been playing games of all kinds for the better part of forty years. I think that qualifies me as a gamer and I've been interested in what motivated people to play games, both young and old.
Ryan Tucci (Ryan)	Hi, and I'm Ryan Tucci. And I've spent a number of years playing video games throughout high school and university. Although I don't have as much time to focus on playing games lately, I still have an interest in exploring the educational value of games and their impact on society. Specifically in regards to gamers as information creators, not just information consumers.
Martha	So the three of us have been on a gaming adventure over the past year-and-a-half. Not a virtual reality or simulation adventure or even an online game adventure. Nope, we've been playing cards. In fact, we've been developing a card game as an information literacy teaching tool for some of the first-year classes I teach at Carleton. And I gotta say, it's been fun.
Ryan	Overall, it's been a wonderful experience and I think that the skills we've learned along the way are applicable in many other aspects of our careers and our lives as well.
Colin	It has been fun and challenging to come up with an idea and tool that breaks the traditional teaching paradigm. To watch the students as they greeted us initially with a certain level of trepidation and then it changed to excitement as they became engaged with what we were doing with them and realizing for our parts that what we were doing was working and was incredibly satisfying.
Martha	It started, with my work as a subject specialist. One of my main responsibilities is to teach information literacy to undergrads. It's satisfying, I really love it, but I have some really tough competition from search engines like Google. And what I find is that undergrads, especially first-year students, often believe that they're really expert at seeking and accessing information but they don't select sources for their academic assignments every time. And because this has come up over and over again, I thought that with all the games out there, maybe I should try fighting the competition by developing a game that might engage undergrads in different information seeking strategies, other than just going online to find stuff. But I had to find a way to do this that would be engaging, meaningful, even dare I say, fun.
Ryan	I had some basic education in creating games for teaching information concepts but having the opportunity

	to create a game that would be used in practice in the classroom was really something that I was looking forward to.
Colin	I think that, at the end of the day, you know, versus how I got dragged into this was simply my background in gaming. It hadn't occurred to me to develop a game for our colleagues to use but I found this was a perfect opportunity to use the skill set that I have with many years of gaming.
Martha	So it happened, this collaboration, pretty organically, eh? Ryan and I used to work in the same department and I think I literally turned to him one day and said, "There's gotta for this," right? But you don't play games just for the sake for playing games. I had a real learning problem that I was trying to figure out. One learning issue that I see regularly is that students choose the wrong sources. And often what happens is that although they're asked to use a peer-reviewed journal article in an assignment, they choose like a newspaper article. And I know that the profs and the teaching assistants work hard to make sure that students understand the assignment. Students get written instructions, that are repeated by both the professors and the TAs in class and in the tutorials. But students really struggle to understand the difference between popular and academic sources. So for me to use the same approach, that is to giving a lecture, simply didn't make any sense. So I've been wanting to explore game-based for a while and thought that the alternative to lecturing was to do an interactive lecture, followed up with a game that could be played during the tutorials.
Ryan	Yeah, when Martha had approached Colin and myself to think about designing a game to be used in the classroom, initially my thought was to create a game from scratch. However, why should we reinvent the wheel if something already exists and can be used openly? So instead I did preliminary research online for games to teach information literacy skills. While there were a few games to meet this purpose, most games were too basic and not appropriate in the higher educational setting. So I came across Andrew Walsh and Tanya Williamson's game called Sources. I was happy to see it was freely available online. So Andrew is a research practitioner at the University of Hutterfield whose research is largely focused on improving the teaching and information skills of students. And I wanted to research out to Andrew and keep him in the loop and touch base about our interest in the game at the Carleton University Library. So using the power of social media, I was able to get in touch with him through Twitter and got his permission to use the game. And I also his received his feedback on his first versions of Sources.
Martha	And that happened really quickly, didn't it?

Ryan	Exactly. It happened within in fifteen minutes we had all the information we needed. And according to Andrew, he never felt the game was quite right but the cards were base for other games. I also thought I'd use this opportunity to probe a bit deeper into why Andrew didn't think the game felt quite right. Which he suggested was it was due to the game originally needed too many cards. This led to clunky game mechanics and he admitted to using the cards in other activities but had never gone back to adjust the original game. In my experience, remixing and remashing games is an important step in the game redesign process. Having access to the game in the Creative Commons domaine gave us this ability and was really important aspect of the project.
Martha	At this point, I just handed over to you and said, "Take this thing and make something of it." How did you guys go about the game redesign process?
Colin	Well, it was a period of great excitement and phenomenal stress as we completely fell of the rails and "Oh my God, we've got two weeks to come up with a game that we can start play testing." Ryan had found us the basic beginning with Sources. However, at this point we had a game that didn't work and we weren't sure how we were going to proceed with this. So kinda went away for Christmas break but we kinda thought about the games we'd really enjoyed, games like Gin, games like Hanabe and Dominion, Settlers of Catan, Monopoly, and Magic: The Gathering. Mostly board games or tile games but reflecting a very fast paced game environment.
Martha	Really, although you, you clearly know about something about the overall process of game design, you went after games that made you feel engaged and excited.
Colin	Absolutely. There were some underlying things here Martha that we really needed to hit on to make this work for us. So, we needed a game that we could teach easily, we needed that a game that would give playing in twenty minutes or less because we were using it for tutorials. We needed a game that would be a good vehicle for the transfer of information, and give the information to students and organize in an understandable fashion. We also needed a game that could be played with the entire class at the same time and, as a by-product, we wanted this to be fund. So what we did not like, we found that the original game was very unwieldy and it took way too long to play.

Ryan	Yeah, so what we did was to adapt Sources to meet the play mechanics of Gin. So we kept the fundamentals rule of Gin, collecting cards and placing completed assignments down in front of a player. Then we adjusted the rules by eliminating the discard phase and reshuffling the sources into the deck for others to use. Our baseline game mechanic was set. Players perform an action, draw a card, play it or pass. We then reworked the cards to accurately reflect the information we needed from our students to receive.
Martha	And I gotta say that, as the non-game designer in the group, it was like you guys waved the magic wand, right, and made all this happen.
Colin	[Laughter] And I really appreciate that vote of confidence but we stumbled on one of the biggest problems that we'd actually had, and this caused Ryan and I a tremendous amount of anxiety. We had a card game that had content but it didn't play well. And it finally dawned, reflecting back on these other games that we were so fond of, like Gin, like Magic: The gathering, that a smaller deck size was what was relevant.
Martha	And this is where your, the fact that you love games and you're coming from your own experience, really mattered. Because it wasn't just that you were thinking your way through the design, you were actually feeling the design as you were going, right? [Yeah.] You had a sense of, of what people would feel as they were playing it and that was important.
Colin	Oh, absolutely and to be frank, when we finally arrived, our deck as it was 139 cards. We reduced it to 52 and the game did exactly what we wanted it to.
Ryan	So once we got the game down to a manageable point, we decided to start game testing and the primary reason for play testing is to look defects and obstructions to play. So initially, we played amongst ourselves but quickly realized that it was hard to be objective and add constructive criticism to the game. We started introducing the game to our colleagues and though they were insightful, they already knew almost everything there is to know about source material and where to find it.
Martha	And one Saturday night, I played with my eighty-two-year-old auntie and my husband, who is like a card shark. So the testing was with different groups of people in different contexts, as well I think, right?
Colin	Absolutely.

Colin	<p>And I think actually, that was the whole point. So we, Ryan and I came to the conclusion we had to sort of change our focus on who was going to be testing this for us and it dawned on us that we had the perfect pool of game testers right in front of us, the very group that we were making the game for, our students. We engaged with the students in the library, we have about a hundred students that we were able to access. And we were able to play a couple of games very quickly, in a short period of time. It was conveying to them the information we wanted them to learn about source material, and how to use it in their assignments. The biggest thing that surprised me was how, that they found the game too simple. They wanted to add complexity and further tools for completing their assignments, which at the time we hadn't really considered because we had tried to condense that we could play this game. As another by-product, they were really enjoying it, they were having fun, which was really a nice result. And we kept getting asked by students whether we could sell them the game and they were asking if they could purchase it. I was gobsmacked.</p>
Martha	<p>So clearly there's some knowledge and expertise in game design and game mechanics going on here. But I knew from a teaching point of view, from the learning point of view, I wanted to delve a little bit deeper. And I discovered the work of Salen and Zimmerman, who've developed this concept of meaningful play. Well, they've really expanded the concept of meaningful play. And it really resonated with me. What Salen and Zimmerman suggest is that all play is meaningful, and we do it organically as human beings. But in this particular context, meaningful play happens when players see both the short-term and long-term consequences of their actions. So a game, or the play, sort of affords a benefit to the learner. So if this is the case, if this is what meaningful play is, then game playing is a form of meaningful play it seemed to me. I still wasn't quite sure if meaningful play could be an effective learning tool, and most specifically how it could fit or work with information literacy. I think we can all agree, it looks like it fits really well. That meaningful play and card games actually work really well with information literacy. Particularly, that it can really help facilitate the learning of the key threshold concepts, the ACRL Framework for Information Literacy in Higher Education. So if, if it does fit well with information literacy, even the ACRL frame, I thought, okay well then I won't abandon the lecture, I've created a lecture that happens in the classroom when the prof is there. I talk about evaluating information and the importance of the fact that information comes in different packages for a reason. But when we go into the tutorials, I've already set up the scene, right, so that the game makes sense in the context of that conversation and also the assignment that the students have to do.</p>
Ryan	<p>And I just want to say Martha that adding the discussion along with the card game was really important. It</p>

	<p>can't be one or the other, it really has to be the two of them together. You can't just take the card game and expect people to learn the concepts. It has to be paired with the session as well. I hope the game worked on its own but we also found that students were asking a lot of questions and wanting to build on that core mechanic of the game. And so what we did, we took the game and we introduced trading and collaboration to the game. Students constantly wanted to trade their resources with other players. But we had to come up with a mechanic that made sense, especially in the academic setting, where players were allowed to trade. And collaboration is such an important of education nowadays, we thought it would important to include that as one of the game mechanics as well.</p>
Colin	<p>I think as we were designing this game and particularly as we got down to the end stage of this, we were seeing it was generating really good discussion. And every time we played this, whether it was with students or colleagues or faculty, there was always a good discussion afterwards. It didn't matter at what level we were playing this game, what we saw with students particularly, their questions became very focused in regards to their assignment. They were actually getting it, whereas before they were looking at us quite blankly, not really knowing where to go and what the differences were between each type of source.</p>
Martha	<p>And in fact, we've been really pleased because the feedback from the TAs has been really positive. And in particular, remember there was the one TA who had actually this course as a TA, this was his fourth year. Initially, he was very polite, he was supportive but he was a little bit skeptical. When we sat down and debriefed with him afterwards, he said, "You know, I'm really pleasantly surprised because for the first time I have a significant number of students who actually picked a journal article, not a newspaper article." But I have to admit that one of the best parts has been taking the game, especially our trip to Ireland to present at the Irish Conference on Game-Based Learning. We had a great sessions, didn't we?</p>
Colin	<p>Ah, we did and I have to admit that I had a few butterflies myself. You know, we had a very practical item that we were showing that we'd been playing in classrooms. But as usual, when you get in there and start giving your spiel, it went very well. The turnout was great, encompassing grad students and faculty from all over Europe and the U.S. and as far away as Singapore and South Africa. It took our conversation about games to a whole other level.</p>
Martha	<p>And for us, a good turnout is not 30 people in the room because the way the game is that there are four people. It's like Gin, it's like Euchre, it's really a four-person game. That meant we were actually able not just</p>

	make sure that they understood how to play so that they could get on with it. But we could actually really engage in meaningful conversations.
Ryan	Yeah the discussion was really important and what made this session so successful I thought.
Martha	And it spilled over into the pub that night and that's always a good thing [laughter].
Colin	I think that underscores exactly what made this really work really from day one, was the conversation, the discussion it generated at every level whether I was talking with someone who is eighteen years old, whose just seeing this for the time, seeing lights go off in their head to older faculty members who are thinking, "Wow this is really a neat idea and I like what you've done with it." And it has the ability to generate conversation in a way that I had not expected.
Ryan	So Ireland for me was a great opportunity to for a chance to share our work on an international level, with people who are passionate about education and using new and emerging techniques in the classroom. I'd had an opportunity to attend library conferences in the past, but this was my first time attending a conference outside of the profession. I'm going to admit I was very nervous about taking this game to a professional conference with people who have their PhD in game design. That said, everyone we spoke to had positive things to say about the game. Without any extensive formal training in game design, we created a game that works. The mechanics flow well and it was fun.
Martha	And would we do it again?
Ryan	I'd say so, [laughter].
Colin	It was a lot of fun. Absolutely, if anybody ever wants to go back to Ireland to teach a course in game design, I'm in.