

Peer pedagogy in an interest-driven community: The practices and problems of online tutorials

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Abstract

While many have celebrated youth participation in online activities as an empowering opportunity for socialization, creative expression, and learning, how this participation plays out in practice is not well understood. In this paper, we consider the ways in which peers teach and learn through the creation and posting of tutorials within a self-described online community of artists and media producers. We describe the practices associated with the production of tutorials in terms of *genres of participation*, modes of engagement with new media. Within the genres of participation framework, creating tutorials can be seen as a way to earn reputation and demonstrate expertise within the alternative status economy of a specific interest-driven community. However, we also show that tutorials can be a source of tension between participants in such a community, as members may view tutorials and their relationships to learning and improving one's craft in contradictory ways.

Introduction

Scholars interested in the possibilities and limitations of digital media for learning and literacy have looked to people's everyday engagement with new technologies for insights into the processes of learning with digital media (Bird 2003, Buckingham 2000, Consalvo and Paasonen 2002, Ito et al forthcoming). The advent of social network sites, media sharing sites, online gaming, virtual worlds, and other hotbeds of online activity, has pointed to the potential for new media and what Henry Jenkins has termed "participatory cultures" to open up new opportunities for learning and literacy that look quite different from traditional classrooms and literacy practices (see Jenkins et al. 2006). This work is often characterized as studies of "informal learning." While some have recently questioned the use of this term and its relationship to new media (see Drotner 2008 and Sefton-Green 2008)¹, the connotation is that "informality" is particular to activities that take place outside of educational institutions and include practices that eschew traditional pedagogical techniques. Informal learning is at times thought of as opportunistic, driven by participants' interests rather than formal curricula. But, how this learning is actually structured and plays out in these spaces, particularly online, is less well understood, whether properly labeled as "informal" or not. This paper comes out of a larger research project that attempts to fill in some of

¹ In a recent edited collection on the topic of informal learning and digital media (Drotner, Jensen, and Schroder 2008), Kirsten Drotner and Julian Sefton-Green separately discuss the problematic nature of the term "informal learning" as well as its complicated relationship with the use of digital media (Drotner 2008, Sefton-Green 2008; see also Sefton-Green 2003).

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these gaps through an ongoing, long-term qualitative inquiry into people's participation online around shared interests as a part of their creative production practices.²

Here, we explore one aspect of the everyday practices of people developing their own media production expertise: the creation and circulation of tutorials on deviantART. deviantART³ is a self-described online art community where participants share and discuss original work spanning a wide variety of media forms and genres. Its members post media work spanning a large range of media and genres, including digital and non-digital art such as drawings, paintings, photographs, photo-manipulations, poetry, prose, comics, animation, sculpture, just to name a few. The for-profit company that runs the site claims that the site has over eight million members and houses sixty million pieces of work have been uploaded to it.⁴

Roughly speaking, tutorials are products that provide instructions and/or demonstrate a process. Tutorials are not unique to deviantART. Indeed, the step-by-step "how to" tutorial is a staple of internet DIY activities for technology hobbyists (Torrey et al 2007). Various other web sites and online communities provide spaces for people to share tutorials similar to those we have seen on deviantART. In prior work (see Ito et al forthcoming), we found that people involved in producing Anime Music Videos, recording fan-produced podcasts, distributing movies on YouTube, and gaming have made use of tutorials. In this way, tutorials act as both social and material resources,

² The material presented in this paper is based on online participant observation and interviews conducted in person, via instant messenger, and over Skype. Our methods have been informed by approaches to multi-sited ethnography (Marcus 1995) and debates in online and offline ethnography (e.g. Lyman and Wakeford 1999, Hine 2000, Miller and Slater 2000, Leander and Kim 2003, Beaulieu 2004, and Burrell forthcoming).

³ <http://www.deviantart.com>

⁴ These numbers come from a news article posted by one of the administrators of deviantART as part of announcing deviantART's 8th birthday. See: "Happy Birthday deviantART," <http://news.deviantart.com/article/54781/> accessed on August 6, 2008. Of course, measuring the number of members on the site is not so straightforward (see Sefton-Green 2008 for a similar point).

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providing "access to wide ranging sources of expertise (Lange and Ito 2008), and supporting creative endeavors. In some cases, resources accessed through online communities like deviantART help a practitioner overcome obstacles such as a lack of these resources in their families, schools, and friendships in their geographically local communities.

Like other investigations into learning and literacy in out-of-school environments, our approach to the study of tutorials is guided by an emphasis on understanding people's everyday practices and participation in their own social worlds (Lave and Wenger 1991, Gee 1996, Street 1995). As Duguid (forthcoming) recently reminds us, one of the key moves made by Lave and Wenger was to emphasize learning over teaching and pedagogy. This does not necessarily mean that practices identifiable as "teaching" do not exist. Rather, it works to flatten existing hierarchies between teachers and learners, emphasizing the social and contextual nature of both practices. In the course of our research on deviantART, we have seen that tutorials represent an interesting form of pedagogy that takes place between peers (members of the site) and within specific social practice. Tutorials move beyond casual conversation and coaching, codifying information for consumption by a wider audience.

When we began this work, our goal was to provide an account of how tutorials fit into the everyday practices of those who made and posted them. We began with the questions: How do tutorial makers describe tutorials (their own and others')? What do they say are their motivations for making them? And how does the production of tutorials fit into producers' own media production practices? In the first part of the paper, we use genres

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of participation, a concept articulated in our previous work on the Digital Youth project⁵, to help answer these questions.

In the second part of the paper we describe a surprising tension that emerged in our conversation with deviantART members and tutorial makers and argue that tutorials on deviantART occupy a conflicted position where they are seen as both resources and obstacles for learning, improving and becoming an expert. This conflict may arise participants on deviantART have some ambivalence as to what kind of resource—social or material—a tutorial is. In turn, these differing ways of thinking about tutorials reveal both strengths and limits to the concepts of genres of participation.

However, before turning fully to this discussion, we first provide more detail on deviantART and its tutorials. Given constraints of space, this discussion will be too short to give justice to the complexity of the site. Nevertheless, we hope to emphasize a bit of the online context in which people engage in their media production practices and with one another.

Participation on deviantART

deviantART has been online since the fall of 2000. Its membership is global. QuantCast, an internet traffic measurement company that has partnered with deviantART, suggests that there are slightly more female users than males and that a large majority of the

⁵ See <http://digitalyouth.ischool.berkeley.edu>. 'Kids' Informal Learning with Digital Media: An Ethnographic Investigation of Innovative Knowledge Cultures' was a three year collaborative project funded by the John D. and Catherine T. MacArthur Foundation. Carried out by researchers at University of Southern California and University of California, Berkeley. Both authors were researchers on the project.

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site's users are between 12 and 34.⁶ The site is not specifically designed for this demographic, although we have the impression that deviantART tends to attract a younger crowd. However, we have run into members who are older than this core group of users. The site is diverse in terms of how it fits into the experiences of its members. There is a wide range of experience in their respective creative endeavors and how long they have been using deviantART as a part of their creative practices. We know that people have different career aspirations, some related to art, others related to careers in what is typically thought of as a creative industries. And others see their work on deviantART as a hobby. Therefore, deviantART fits into people's lives and media production practices differently.

Members of the site have "userpages" similar to personal profile pages on other social network or journal sites, such as MySpace or LiveJournal. Userpages serve as hubs for members' activities on the site. Artwork or "deviations" are posted in individuals' galleries. The page that hosts a given work, the "deviation page," frames the work and provides, among other things, a space for creators to provide commentary on their work as well as space for others to respond. Creators may choose to disable comments; however, comment threads frequently provide important spaces for discussion between creators and viewers. In addition to posting deviations, members write to journals that appear on their userpages (similar to blogs), post news articles that enter into the News section of the site, discuss any number of topics in forums, chat in chatrooms on the site, and send private notes to one another. In short, there are many different synchronous and asynchronous mechanisms that the site's owners and designers have provided for interaction between its members.

⁶ See <http://www.quantcast.com/deviantart.com>. Last retrieved on September 11, 2008. See "About Quantcast," <http://www.quantcast.com/docs/about>, for discussion of their method of internet ratings, a combination of site-side measurement traffic and panel data.

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Finally, the site provides a way for members to "watch" each other. When a member watches another deviant, any deviation, journal post, or news article will automatically enter the "Watcher's" Message Center, allowing members to more closely follow the work and/or writings of others. In this way, "watching" resembles many of the ways that people keep track of the work of others other online, such as "Friending" on social network sites (boyd 2006), tracking contacts' photography on Flickr, or subscribing to RSS feeds. The key similarity is that people are producing text and media for somewhat known audiences to match the "invisible audiences" (boyd 2007) that come with posting work to the internet. In addition, deviantART notifies members when someone else watches them thus providing a way to have a sense of their growing audience. Tutorials fit into the larger context of interaction on deviantART as both artwork and a means of communicating information to an audience.

Tutorials on deviantART

In the introduction, we described a tutorial as a product that gives instructions and/or demonstrates a process. This is at best a rough definition. As we started to pay attention to items classified on deviantART as tutorials, we realized that they take on a variety of subject matter and form. Many tutorials on deviantART are specifically about particular tools (such as a tutorial on how to create a particular effect in Photoshop). Others are more about the reproduction of a style (such as how to draw faces in the style of Japanese comics (manga) or animation (anime)). Some are similar to lessons one might find in an art curriculum or in art books, focusing closely on technique and incorporating art theory. Finally, there are tutorials on how take advantage of the site, how to give and take feedback, and how to protect your work from theft. Here, we have barely scratched the surface in what people present in their tutorials.

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This diversity in the subject matter and use of media of tutorials is matched by the diversity of ways in which members present this material. Tutorials on deviantART, like the How-Tos described by Torrey et al (2007), typically incorporate a variety of media. They often include written text and may include drawings, photographs, and screenshots. Sometimes, an artist posts the images for the tutorial as the deviation and then uses the "Artist's Comments" area as the textual explanation. We have also seen tutorials spread out over more than one page. Finally, we have also seen video tutorials done in Flash that include voice-over narration.

One member of the site, 19-year-old Eil from Norway⁷, made a tutorial on how to make tutorials based on her several years of experience on the site. In this "Tutor's Tutorial," posted in June of 2007, she presents her own taxonomy of the forms of tutorials. We have found these particularly instructive in presenting the viewpoints of an experienced member of the site. In her terms, tutorials can be divided into three categories. First, there are "guides," which "cover whole subjects" rather than provide explicit step-by-step instructions. Next, there are "walk-throughs," which are more of a demonstration or performance or how some one did something. Finally—and a possible source of confusion in this paper—there are "tutorials," which are step-by-step sets of instructions on how to achieve a certain outcome. For the purposes of this paper, we refer to all three types as "tutorials" in line with how the deviantART currently presents them to its members and what seems to be common language on the site. However, as we suggest below, it may be these differences in form and the overloading of the term "tutorial" that may account for some of the tensions in their perceived value.

⁷ Following the research practices we followed for the Digital Youth project, we gave participants that we talked to the option of using a pseudonym that we would provide, using their own pseudonyms, or using their deviantART screennames. In this paper most of the names presented are participants' screennames unless otherwise noted.

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Tutorials in all of their forms provide some access and insight into the process of the people who created them, access that may otherwise not be possible without sites such as deviantART. Although we did not focus on all of the ways people find and use tutorials, from what we have observed in the comments on tutorials, in people's requests to find them on forums, and from what some tutorial-makers we talked to told us, they are seen by many as valuable resources for learning. Similar to what Torrey et al (2007) found in the interviews of internet How-To creators, we heard a variety of reasons that people say that they make them that may depend a great deal on the different ways in which they use deviantART and understand their own work. These included being happy to help others, satisfaction in sharing knowledge for the benefit of some sense of community, enjoying the process of making them as a separate project from their other projects, enjoyment of teaching, and being able to cultivate one's reputation from them. We return to some of these in the next section.

Understanding the practice of making tutorials –Geeking out in interest-driven genres participation

In this study of tutorials on deviantART, we have tried to situate their content, use, and production within a framework of genres of participation (Ito 2003, 2008; Ito et al. 2008). Genres of participation are derived in part from Lave and Wenger's (1991) reconceptualization of learning as legitimate peripheral participation in communities of practice and in part from Henry Jenkins's (1992) concept of participatory cultures. They are modes of engagement with media and technology that guide the ways in which people understand and operate within mediated spaces. The use of the term genre highlights the "interpretive dimension" of "how we identify with, orient to, and engage with media" (Ito et al. forthcoming). Moreover, the key shift in thinking about media

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engagement in these terms is that it changes the emphasis from categorizing people to categorizing types of practice:

By describing these forms of participation as genres, we hope to avoid the assumption that these genres attach categorically to individuals. Rather, just as an individual may engage with multiple media genres, we find that youth will often engage in multiple genres of participation in ways that are situationally specific. We have also avoided categorizing practice based on technology- or media-centric parameters, such as media type or measures of frequency or media saturation. Genres of participation provide ways of identifying the sources of diversity in how youth engage with new media in a way that does not rely on a simple notion of "divides" or a ranking of more- or less-sophisticated media expertise. Instead, these genres represent different investments that youth make in particular forms of sociability and differing forms of identification with media genres. (Ito et al forthcoming, emphasis ours)

As indicated above, just as there are a variety of deviantART users, there is a diversity of ways members orient to the site, orientations that may change over time or from situation to situation. Therefore, genres of participation are useful analytic constructs to employ in understanding some types of participation on the site. Genres of participation can help account for differences in users' levels of experience as artists, as well as differences in career aspirations and trajectories.

In this study, we have come to see participation on deviantART as operating primarily within an *interest-driven* genre of participation. In interest-driven participation, friends follow interests. This means people engage practices based on a particular interest, join and participate in groups in which this interest is shared, and socialize through their

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involvement in those groups. Interest-driven genres are defined in relation to friendship-driven genres, in which friendships drive participation.

Related to the distinction between interest-driven and friendship-driven genres of participation are more specific genres that describe various practices: *hanging out*, *messing around*, and *geeking out*. Participants in the projects from which these terms were derived routinely moved between these genres when engaging in different media practices.⁸ Here, we want to focus primarily on the third of these, geeking out, which Horst, Herr-Stephenson, and Robinson (2008) describe as "intense commitment or engagement with media or technology"⁹ Using the practices that we have associated with geeking out in the interest-driven genre, can shed light on some of the practices of making tutorials.

Tutorials as building and demonstrating expertise

One important practice associated with geeking out is the building of expertise. While we have seen evidence that some people hope to use others' tutorials as ways of improving we have also found that the making of tutorials, and just as important, the *posting* of the tutorial online, is a demonstration of a new sense of expertise and risk taking. At the time

⁸ In developing the specific genres of participation, we at times struggled to classify practices as fitting within one or another of the genres. Further, we recognize that the genres that currently make up the analytic framework (*hanging out*, *messing around*, and *geeking out* in particular) do not account for all genres of participation. They are three categories that emerged from our cross-project analysis; as more research and analysis is conducted using the genres of participation as a frame and as media and technology change in form and function, it is likely that new genres will be proposed.

⁹ These labels and terms came from terms and discussion used by many of the participants in the various studies. However, we do recognize that that in the appropriation of these everyday terms to those of the analyst, misunderstandings may arise. Terms like "geek" can be contentious and we want to be careful not to label people as "geeks" even though at times they engage in practices that resemble those we have subsumed under the mode of "geeking out."

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we talked to her, Talei, a 16 year old girl from the UK, had recently began putting up video tutorials of her drawing process on YouTube and linking to them from her journal on deviantART. While she had previously made tutorials on other subjects (such as how to make a signature for a forum and how to get started on Photoshop), these video tutorials were as much a demonstration of her own improvement as a way to help others:

[From one conversation]¹⁰

Dan: When did you get the idea to post drawing tutorials onto YouTube?

Talei: ... I wanted to for ages, just never had the confidence

Dan: so what changed, do you think?

Talei: my skill

Dan: so you have seen improvement?

Talei: drastic improvement

[From a second conversation]

Dan: in what way have you seen "drastic" improvement?

Talei: art-work wise, I never thought my work was good enough for making a tutorial...

Talei: That was a few years ago though

Talei: And I never had the confidence to talk or anything having my voice recorded and explaining for others to understand, worried I'd do it wrong, and I'm still not too confident but if I keep doing, that will change, I don't mind so much now I've done it once

Dan: so, what i hear you saying is that you seen both improvements to your skill and your confidence

Talei: Aye

¹⁰ This interview was conducted via Instant Messenger. Unless otherwise noted, all quotes used here are from conversations via Instant Messenger.

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Talei: Well, everyone needs practice, right?

Talei: I used to have near nothing to confidence in myself in everything I did

Thus, the tutorial here comes only after extended practice and is not something that came easily to Talei. Furthermore, posting a tutorial online can be perceived as a risk, even when someone has already built up a group of Watchers, people watching one's work, who may have prior expectations. For example, when we asked 20-year-old Rachel¹¹, about a tutorial she had created on shading, she said that she had originally created it just as "something to spent time on" and wasn't going to post it. She told us, though, that despite her large audience she originally "didn't want to post it cause I thought it wasn't that good, or that people wouldn't find it very helpful..." However, when she did post it, explained that "the reaction was mostly positive, which is a relief for me."

Overcoming the sense of risk of posting this work, solidified both Talei's and Rachel's sense of acquiring some expertise in the way they worked by being able to demonstrate it to others.

Tutorials and developing "cred"

In both of the prior examples, the tutorials were a part of processes of building and demonstrating that expertise often driven by the tutorial makers. In other circumstances, the initial impetus to do a tutorial often came from people's Watchers. Rather than merely demonstrating expertise, these tutorials came when others already identified someone as an expert and hoped they would somehow share this knowledge. Being

¹¹ A pseudonym.

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identified as experts links tutorials to the notion of developing "geek cred" a second practice associated with geeking out. Particular creators are recognized for being experts, for having particular specialized knowledge that is valuable to the group. The tutorial then becomes the performance of that particular form of expertise to the group and can serve to further solidify the relationship between tutorial-maker and his/her audience.

In the "Artist's Comments" area of a page on which a tutorial appears, the text often begins with a characteristic phrase such as 'In response to numerous requests...' or 'Because people have asked...'. For example, when we asked Elliot¹², a 40-year-old artist on the site for about how he came to put up tutorials he had posted regarding on achieving particular effects with Photoshop, he replied that it stemmed from his time tutoring when others would ask him "How the heck did you do that?!" Similarly, Rachel explained that she put a tutorial she made on drawing wings because "a lot of people kept asking me about my process." By building expertise, one is developing the skills and knowledge to be an expert within a particular social world, while developing "geek cred" is how this expertise is recognized and respected by others in that world.

Although not all tutorials are made in response to specific requests, the value of geek cred may be influential nonetheless. For example, one person we talked to noted that she does not work by request, stating, "I only start one when I feel excited about it."

However, she further notes that audience requests for tutorials are important because "when you get a lot of requests for a topic, it tends to warm you up to it, so that has a little influence."

In addition to requests, tutorial makers we spoke with mentioned comments on posted tutorials as another way in which expertise or geek cred is acknowledged. A number of the people we talked to described the satisfaction and happiness when they hear back

¹² A pseudonym. Interview was in-person.

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from people who have used their tutorials to help them. As Rachel explained, "The excitement probably comes from the fact that people used my tutorial and were kind enough to show me the results. And as far as I can remember, everyone said that the tutorial helped them in some way, so I'm really happy about that."

Tutorials as an integral aspect of reputation

The feedback possible through the comments and the ability to directly connect with the tutorial-makers enables this kind of feedback. The fact that these comments are publicly displayed to others can help solidify a person's cred. Furthermore, the development of tutorials that become popular can become an integral aspect of one's reputation on the site. As Horst, Herr-Stephenson, and Robinson (2008) explain, at the intersection of geeking out genre with the interest-driven genre of participation is the development of "alternative status hierarchies." The markers and methods of earning status, and indeed, what status means, is different in interest-driven participation than in other forms of participation. Opportunities for expertise are more widely dispersed, rather than being defined strictly by age, gender, location, or educational credentials.

Tutorials also can help build up one's reputation and serve an important role in shaping the other aspects of one's work. Two of the people we talked to have developed positive reputations as tutorial makers. Joumana Medlej¹³, a 28 year old woman from Lebanon playfully refers to herself as the "Self-proclaimed tutorial queen." She started calling herself this, she says, when several of the people who were watching her work started calling her a name along these lines, after she had won several awards for the tutorials—Daily Deviations--that the site gives out on a daily basis:

¹³ Medlej asked that we refer to her by her real name.

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Medlej: [referring to her first tutorial] ... and when I joined dA I thought "why not post it, it may be helpful"

Medlej: next thing you know I get a DD [a Daily Deviation] on it and it was the jumpstart to my "career"

Dan: in what way?

Medlej: I got attention and I discovered that people wanted good tutorials. I love teaching and suddenly I had an expectant audience, so I was more than happy to embark on this ongoing series

Another tutorial maker we talked to, alexds1 a 23 year old woman living in northern california, has also won several Daily Deviations for her tutorials during her four years on the site. While she expressed some concern about being known only for her tutorials, she pointed out that from her point of view "helpful tutorials just seem to garner the most attention in these parts" and that among other things, she likes the fact that they help boost her "pageviews," the numbers of people who come to her userpage and then hopefully see her other work.

The awards and the pageviews provide an alternate currency or set of credentials that seem to be a part of the currency of this alternate status economy of deviantART. It is important to point out that like Medlej, for alexds1, getting attention and recognition are not the only reason that they say they make tutorials., But having at least a tacit understanding of this alternative status economy continues to motivate their production.

Tutorials – Contradictions and Tensions

Understanding tutorial production in terms of geeking out and situating the practice within the interest-driven mode of participation helps reveal how tutorials are important

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aspects of the creative practices of those who make them and provide benefits to their makers in ways that are different to the benefits they may provide to those who find them, appreciate them, and use them to improve their own work. However, despite what at first seemed to us to be the value of tutorials to both tutorial users and makers, we were surprised to learn that not everyone on deviantART sees tutorials as being necessarily valuable, even those who have made them.

Earlier in the paper we introduced Talei, who had recently posted a set of video tutorials demonstrating her own sense of improvement. It was unclear from the conversation how important it was that others comment or show some recognition for this, but she said that if people were watching them and "it's useful to them, then that's fantastic."

Surprisingly, though, she told us that she did not spend much time using other people's tutorials:

I don't have much patience for tutorials, and I can't follow things by the book, most of the time, and I rather not ask for help with something I could do myself I guess? I prefer to figure things out on my own and explore, its a lot more satisfying and I learn things on the way. Its like, when I have a spring clean and I find things from years ago and reminisce, or find things I forgot I even had.

As we learned, this objection to tutorials may be more widespread. Elandria, a more experienced member on the site, who both enjoys reading tutorials and making some of her own described that there had been, and perhaps still was, some objection to them:

It's very open to interpretation I suppose, and I suppose as you speak to more people they will have different opinions on it. And y'know some people say 'Oh tutorials are rubbish. You've got to learn your own way of doing things. It's a learning curve only you can do and you can't copy other people for the rest of your life because that's what a tutorial is, it's just copying how someone else works.' ... Ah so there's that kind of alternate view as it were... I know I've had

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quite heated debates in the past with different people on the intrinsic value of is it worth having tutorials and things. A while ago there was a big debate about having tutorials put in with the Resources section of the site or should it be somewhere else and that brought up a huge debate because it was like the ugly-duckling sister and nobody really wanted it.¹⁴

In her description of what at one point felt to Elandria like a "big debate," the key issue at play was whether or not tutorials was whether or not they actually stunted learning, by keeping people from learning on their own and continuing a reliance on copying the approach of others. The retrospective story matched, to some extent, Talei's stated preference for "figuring things out on my own and explore...."

Eil (creator of the "Tutor's Tutorial" described earlier) similarly discussed seeing people boasting about not using tutorials. In addition, she mentioned that she also had some misgivings about tutorials at one point in her past: "But I do remember that I felt frustrated at some point because I felt I was 'dependant' on tutorials to make something 'good' - in my head, using tutorials was a bit like cheating."

Difficulty "following by the book" and this stated preference to "figure things on my own" is an example of what Lange and Ito have identified as an important discourse of being self-taught in their discussion of learning in interest-driven modes of participation (Lange and Ito, 2008; see also Lange 2007a). But, as Lange and Ito point out, while producers describe being "self-taught" they do not see this stance as contradictory to also discussing all of the people and all of the media, such as books and online tutorials, that have played a role in their process of getting started. For example, in Lange's studies of information professionals and amateur movie-makers (see Lange 2007b), being self-taught is voiced in opposition to receiving formal instruction and is a highly valued way of learning in the communities of expertise in which the people she studied were

¹⁴ From an interview using Skype.

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affiliated. According to Lange, consulting FAQs, using websites, using tutorials, and trial and error are all a part of this discourse. In her studies, despite those resources being "socially-encoded" products, they were not seen as learning from others as they did not connote the kind of formal instruction more associated with other contexts.

Thus, hearing that some people on deviantART also employ this discourse is not particularly surprising. What is surprising is the connection it has to tutorials. The research by Lange and Ito indicated that the finding and using of tutorials was a part of learning on one's own. What we have learned here is that using tutorials, even when a part of a seemingly self-motivated, "informal" learning, can be positioned in opposition to being self-taught.

Perhaps even more surprisingly was that we heard this from at least one person who had made a tutorial in response to requests from her audience. AINSI, a 23-year-old woman who had already had some professional success for her work, told us about the one tutorial she had in her gallery. Like some of the examples we discuss above in relation to having been recognized as an expert with "cred", AINSI's "Splatter Paint" tutorial came as a result of requests from her large audiences on the site. However, she indicated that she didn't quite understand, or agree with her audience, on the value of the tutorial she made:

AINSI: I made a tutorial because I get questioned on my splatter technique so much. *laughs*

Dan: why laugh?

AINSI: On a piece that gets 1000 favourites, the same piece gets about 100 comments, and usually about half are asking about the splatters

AINSI: I just think it's amusing that people are so afraid of making mistakes that they have to ask how someone throws paint on a piece of paper

AINSI: instead of going out and trying it for themselves.

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AINSI: and don't get me wrong-- i'm glad that the tutorial has helped people with the technique

AINSI: i just don't see the merit in doing something someone tells you to do instead of learning it and developing it on ones own

AINSI: if that makes sense

...

AINSI: I figure if people kept asking for it, i may as well deliver.

Dan: How do you think people should be learning?

AINSI: By experimenting on their own. That's how i've learned all my techniques. I think if someone tries to learn a technique or media on their own, there's more value-- because then they know what will happen when they DO mess up, you know?

We even heard evidence of this tension from, Joumana Medlej and alexds1, our two cases of people who had acquired a reputation and enhanced status for their tutorials and had incorporated them into their practices. They both articulated this tension in describing what they did not like about some of the other tutorials on the site, what they saw were the value of their own tutorials and the kind of learning they tried to promote through them.

Medlej told us that her tutorials take a lot of time and that she spends a great deal of time researching the subject matter before making them. Reflecting on her tutorials she says "...I never tell people what to do in my tuts [tutorials], I explain to them the way things are and why they are that way." Nevertheless, she added: "but these are tools for the user to make their own, not one approach."

Alexds1 also was working towards a specific pedagogy in her tutorials. She explained to us that she saw a lot of value in seeing others' production processes, in being able to see how they did things and learn from their method. She then tried to translate her own

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desire to figure out what she likes in others' work into a tutorial for others, by trying to "incorporate self-questioning" into her tutorials:

alexds1: ... like asking yourself "what do I like/ hate about _____" be it your work or the work of others. In this context I mean it in the way of whether the hand/ foot/ expression you're drawing makes sense, and why or why not.

By trying to explain "why" things look a certain way, there is a strong resonance between the style of alexds1 and Medlej. Nevertheless, while she sees her tutorials as better than those that don't explain the why, Alexds1 also clearly articulates that possible limits to her own approach:

alexds1: I've seen tutorials where its all laid out bare, like here is a happy face, here is a sad face, but the why isn't explained very well

alexds1: not that it needs to be, I guess, since we all have developed a sense of how to interpret expressions and body language in real life. Learning how to translate it onto a page just takes a bit of effort and asking how a certain line would achieve a certain effect.

alexds1: In the end you really have to figure it out for yourself, hopefully my tutorials will give people a starting point on the line of questioning for that body part or whatever

Thus, like Medlej who sees her tutorials as "tools for the user to make their own," alexds1 see her tutorials at best as "starting points" for people to learn on their own. Both seem to be saying that a tutorial, when done well, actually supports and encourages what people have to do to learn on their own and be "independent." Alexds1 expresses a clear articulation of a sense of difficulty in trying to "translate" the experiences of everyday life into an explicit resource for others to use. Like AINSI, she seems to think that people have to learn on their own, but there is a bit more room in her opinion to get people on

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the right track. While there is clearly an ideology of the importance of learning on one's own that operates at the discursive level, we cannot dismiss the routine practice that may experientially feel "on one's own" that is a fundamental part of improvement as well as building and demonstrating expertise.

Comparing and contrasting these perspectives on tutorials indicates that one of the simpler explanations that may account for the mixed accounts of the value of tutorials may come back to the ambiguity in the term that we discussed earlier. Recall in the "Tutor's Tutorial" that we described earlier in the paper, the creator felt that the generic term "tutorial" really referred to three kinds of artifacts. In her view a "tutorial" was the step-by-step kind, while "guides" and "walk-throughs" were different. Each form of tutorial has adopted a different pedagogical style in the way it presents itself. It may simply be that the questioning of the value of tutorials may be a rejection of the notion of following instructions, a rejection of "step by step," which is clearly a concern of some of the examples above (Talei's "following by the book"). Further evidence that this simpler explanation—a confusion in terminology—has some merit is in the work of Medlej and alexds1 to create tutorials that actually resemble "guides." Both implicitly seem to reject step-by-step instruction, at least when there is little attention to answer questions of "why." A tutorial, when following their model, could be a powerful resource for learning on one's own.

However one final quote from alexds1 leaves us the sense that some of the dilemma of tutorials goes beyond semantics:

I've sort of considered art something you need to 'get' on your own (*not to say it can't be taught but you still need to 'get' it by yourself*) (emphasis ours)¹⁵

¹⁵ From a note sent to one of the authors (Dan) on deviantART.

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Another explanation is in the ambiguity as to what kind of a resource people think that a tutorial on deviantART is. In his seminal study of the social organization of artistic practice, Howard Becker (1982) argues that artists mobilize two kinds of resources that art worlds provide: material resources and human resources. Material resources are the products, supplies, and media that artists need to create their work. Human resources are the people who supply those material or other forms of labor necessary to complete the work. Becker does not delve into the positioning of teachers, though one might consider them another form of human resource. Where the mode of engagement with a teacher is in face-to-face or even mediated interaction and conversation, the teacher is more clearly a human resource. But when there is an attempt to turn this teaching into a product, a tutorial is a material resource. However, when tutorials are developed in the practice of creating and sharing work online, enmeshed in the interaction between creators and Watchers things become messier.

In this context, we see a tutorial is a mix of the two, a *materialized human resource*. Tutorials, depending on the form and how they are taken up in practice, can be seen by participants on deviantART as an engagement with other creators or as a product that is to be used. Thinking about a tutorial as a material resource, one can use it, incorporate it into practice, and still claim that this involves learning on one's own. On the other hand, thinking about a tutorial as a human resource, positions the tutorial maker as a teacher, whose value has to be intentionally limited if one wants to reproduce a discourse of being self-taught.

Finally, our attempts to understand the contradictory positioning of tutorials highlights both the utility and possible limitations of the notion of participation genres.

Classification of practices rather than people or objects helps us create distinctions between what is at work in the process of *creating* a tutorial as opposed to the process of

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using one. As we have described above, making and sharing a tutorial as a social practice fits well within the practices we associated in prior work with geeking out—demonstrating expertise, having cred, and building reputation in alternative status economies. But this is not to say that using them to improve is perceived in the same way. In fact, the opposite may be true: doing creative work without the assistance of others' help is also a demonstration of expertise and is another source of developing "geek cred." Paying attention to practices in terms of participation genres rather than paying attention to typologies of people reveals these possible conflicts when people engaging in different modes of engagement question the value of the same object, such as a tutorial.

On the other hand, this kind of conflict there also demonstrates some of the limitations with this analytic vocabulary. Describing practices such as demonstrating expertise and building up credibility and reputation under a singular genre of geeking out may mask what we believe our discussion here reveals about conflicts in these modes. Or rather, there may be internal conflict in the same mode where the practices associated with the genre may reveal fundamentally different attitudes towards the same object. Therefore the placement of these genres with respect to individual trajectories may still matter in ways that are backgrounded with the use of the notion of a participation genre. The current genres and practices we have employed, while providing opportunities to see tensions between different modes of engagement, perhaps do not go far enough in emphasizing this conflictual relationship between those with more and less experience in a practice, something that Lave (forthcoming) and Duguid (forthcoming) remind us as an essential aspect of their notions of situated learning. This does not mean that the notion of participation genres is inherently problematic, but it does point to the need to consider how to incorporate conflict and debate into the practices described.

Final thoughts

We began this paper on the heels of the Digital Youth project's emphasis on learning in "informal" spaces; our goal was to better understanding what teaching looks like in such environments. In this paper we have introduced tutorials as one type of pedagogical resource. As we have explained, tutorials on deviantART take on several formats, each with slightly different pedagogical aims. Through our discussions with tutorial makers on the site, we have found that tutorials are a resource used by many participants to learn new skills and improve upon their work.

Tutorials on deviantART come as a result of interaction between creators and potential or actual audiences. They not only provide insight into the processes of creation, they are a part of practices that involve demonstrating expertise for oneself and for others, establishing credibility, and operating in alternative status systems. We propose that tutorial creators can be seen as operating within the "geeking out" genre of participation, characterized by specific practices related to credibility and reputation. From our conversations with tutorial makers, it appears that conflict arises when tutorials are understood by other members not as products with specific value developed within particular, alternative status economies, but as substitutes for the time and effort associated with earning reputation and credibility within those particular economies. Looking at tutorials as a product of these engagements and of people acting in various genres of participation has painted a more complex picture of these practices.

Although it has not been our focus here, we also believe that this investigation of tutorials furthers a point argued by others (e.g. Sefton-Green 2005, 2008, Drotner 2008) that the label "informal" is confusing and perhaps misleading. In the creation of and use of tutorials, we believe that members of deviantART are often attempting to formalize in

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a particular way something that otherwise might be unavailable to others given constraints of geography, time, or other factors (such as age). In other words, we see some tutorials as products of participants' attempts to make explicit information that otherwise might have remained tacit. However, even some tutorial makers see this exchange as one of the limits to their own endeavors. Moreover, in this process of formalization, ideological conflicts related to teaching and learning in the "right" ways surface. In the construction and reconstruction of formality in these so-called informal spaces, pedagogy is up for debate and disagreement by those who cast themselves as learners and teachers in various modes of participation. Finally, we conclude this paper by emphasizing the need for further investigation (on our part and by others) of the interactions between teaching and learning in interest-driven environments.

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