# Complexities of Gaming Cultures: Adolescent gamers adapting and transforming learning

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# ABSTRACT Games & Learning

We are well aware that video games are causing educators to take a second look at the educational value of games, technology, and the social interactions involved (de Castell & Jenson, 2004; Gee, 2003; Shaffer, Squire, Halverson, & Gee, 2005) but what does that learning look like, how does that learning or way of knowing happen, and what do the gamers h ave to say about their learning? What are the implications for these gamers and for education sy stems when we begin to value the powerful learning involved in video gaming cultures?

# **Gaming Cultures**

Squire (2008) u ses the m etaphor "constellations of users" (p. 639) to suggest how gamers as i ndividuals make up a culture which in turn is connected to other cultures and he brings attention to how game playing can be and should be observed as a social practice. Gee (2003) also uses the term affinity groups and spaces to explain how common interests and di scourses draw people (e.g. gamers) together, to use technological space s in orde r to group m ore easily and flexibly. Involvement with particular video games and the subsequent online and offline cultures are highly dependent of the gamers' social contexts (Yates & Littleton, 1999) and these communities are self-organ izing and self d irected as the members produce and create meaningful and productive interactions and texts of their own.

Our ongoing three year ethno graphic research study of ten adolescent gamers has begun to r eveal the importance of understanding and knowing more about individual gamers' ways of knowing, but also ab out the overlapping and developing c ultures they c reate and belong to as gam ers. Case st udies of t hese a dolescent gamers, de rived fr om multiple in dividual and focus group in terviews as well as interviews with their parents, have helped to shed light on the com plex lives and lea rning practices of t hese gamers who are "opening new spaces", both physical and abstract, (Squire, 2008, p. 642) in and out of their game play.

#### **Complexities of Gamers' Cultures**

Video gamers' cultures can be underst ood as a "collective of dynamic syste ms" (Davis , Sum ara, & L uce-Kapler, 2008, p. 77) in which each individual is i nvolved but the culture cannot be re duced to one pers on, nor can the individual be dismissed since s/ he is i nvolved with ot her systems; they can "com prise and s urpass collectives of others and the systems change a gain" (Da vis, Sum ara, & Luce-Kapler, 2008, p. 77). This paper presentation aims to address how co mplexity th inking (Johnson, 2001) is a helpful lens to examine the underground, interweaving, and changing learning practices of video gamers.

The complexities in volved in the gaming cultures of our adolescent m ale participants include how they socialize, how they learn from multiple sources, and how they come to know m ore t hrough producing. Embedded in t hese multiple and overlapping systems is the learning that is not transparent or easy to artic ulate for the learners. T hese complex systems or 'u nities' can be d escribed as "spontaneous, unpre dictable, ir reducible, c ontextual, a nd vibrantly sufficient – i n brief, they are adaptive" (Davis, Sumara, & Luce-Kapler, 2008, p. 77).

#### **Exploring the Complex Systems**

Through case studies, artifacts, and the gamers' reflections, the b lurring of their lear ning, know ing, and teaching are shared and the complexities of their multiple cultures involving gaming will be explored in hopes of spurring a larger conversation about thow "complex systems are systems that learn" (Davis, Sumara, & Luce-Kapler, 2008, p. 78) beyond the maintenance of a supervisor, teacher, or leader, and how these systems continue to tip the balance of themselves in order to keep learning, forging new ideas, relationships, and ways of knowing. Play becomes validated

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and pur poseful when v iewing gam ers' cultures through complexity theory and the understanding of play develops to include m utual resp ect, sh ared responsibilities, and engaging, stimulating experiences (Davis, Sumara, & Luce-Kapler, 2008). These adolescent gam ers reveal the productiveness of pl ay (Pearce, 2006) as they s hare and describe their communities of practice.

# Why Consider Complexities?

The m edia fueled, societal stigm a of gaming (Yat es & Littleton, 1999) continues to d ismiss the sophisticated and complex learning that happens for video gamers. We argue that in ackn owledging t he tr ansformative l earning a nd knowing in which g amers p articipate, educational assumptions will be disrupted and cu ltural practices of teaching and learning will shift.

# Author Keywords

Adolescent gam ers, l earning, co mplexity th eory, selforganizing cultures

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