CSCW and Education: Viewing Education as a Site of Work Practice

Peter Samuelson Wardrip

University of Pittsburgh

5801 Posvar Hall

Pittsburgh, PA 15260 USA

Psw9@pitt.edu

R. Benjamin Shapiro

Tufts University

Department of Education

Paige Hall

Medford, MA 02155

ben@getdown.org

Andrea Forte

Drexel University

College of Info Sci / Tech

3141 Chestnut

Philadelphia, PA 19104

aforte@drexel.edu

Spiro Maroulis

Arizona State University

School of Public Affairs

411 N. Central Ave., UCENT 447

Phoenix, AZ 85004

Spiro.maroulis@asu.edu

Karen Brennan

Harvard University

Graduate School of Education

Appian Way, Longfellow Hall 324

Cambridge, MA 02138

karen_brennan@gse.harvard.edu

Ricarose Roque

MIT Media Lab

77 Mass Ave., E14/E15

Cambridge, MA 02139

ria@mit.edu

Abstract

Educational institutions, whether they are formal or informal, present a work environment in which technology, and social and cultural interactions mediate unfolding work. The interaction between CSCW and the work of education can hold great potential for both improving the educational institutions as well as providing greater explanatory power to CSCW theories that support the work of groups and the designs that are instantiated in those theories. The goal of this workshop is to build a community interested in the intersection between CSCW and educational work practice.

Author Keywords

Education; Work Practice

ACM Classification Keywords

H.5.3. Group and Organizational Interfaces

Introduction

Renowned scholar of teaching, Lee Shulman, famously characterized education as a field, not a discipline [13]. He attributed this to a lack of disciplinary consensus around the methods and frameworks of educational research. In fact, he noted as a strength that "The perspectives and procedures of many disciplines can be

brought to bear on the questions arising from and inherent in education…" (p. 5).

The goal of the workshop is to develop a community engaged in research at the intersection of education and CSCW. Orlikowski and Barley [11] wrote about a similar intersection, that of studies involving information technology and organizations. They argued that the outcome of this intersection could be mutual enrichment as well as a fusion of perspectives. We, too, believe that the intersection of education and CSCW can provide a fusion of perspectives; a fusion that can inform and benefit both fields.

In short, educational institutions, whether they are formal or informal, present a work environment in which technology, and social and cultural interactions mediate unfolding work. The interaction between CSCW and the work of education can hold great potential for both improving the educational institutions within society as well as providing great explanatory power to CSCW theories that support the work of groups and the designs that are instantiated in those theories.

Specifically, this workshop will explore how theories, methods, tools from CSCW can support our understanding (and improvement) of work in schools, and how the setting of schools can aid in the building and refinement of CSCW theories and tools. Thus, this workshop would seek to understand school-based work practices and routines that educators engage in that ultimately have an impact on student outcomes as a CSCW practice. We expect this conversation to foster ongoing collaborations within the CSCW

community, including the reemergence of education as a core theme of CSCW.

The work of educational professionals has long been characterized as isolated or "cellular" [9]. In fact, an ongoing theme of educational reforms has been to develop a social infrastructure through which new curriculum, assessments, instructional strategies, etc. can be supported and implemented. These go by the name of community in various forms [e.g. 4, 6, 10].

This approach to the social organization of schools that values collaboration and collective work offers promising steps toward improving teaching and learning. Yet some would argue that true social organizing for work requires a finer grain understanding of work practice. Or as Barley and Kunda [2] have written in the study of organizational work, "The dearth of data on what people actually do…leaves us with increasingly anachronistic theories and outdated images of work and how it is organized" (p. 90).

There currently is a nascent group of researchers working in this space. Studies such as studying twitter as a form of professional development [7], online platforms to enable teachers to exchange lesson plans [1, 3], educational improvement networks [5], tools to support teacher reasoning about student learning [12] and platforms to generate solutions to educational problems [8]. Studies like these shift the conversation of technology and collaboration in education to how they serve the work of educators and not how they serve as a tool for learning by students.

Themes

By educational work, we mean both the everyday activities carried out by those who work in formal and informal educational. In addition, we also mean the emerging work practices in education that are enabled by social and collaborative technologies. This also includes the ever-growing online communities that support educational work. Thus, we wish to include credentialed and non-credentialed practitioners working at all age levels charged with the direct or indirect responsibility of educating one or many learners.

The workshop topics and themes will center on these and similar topics listed below. We view these example topics as provocations rather than strictly prescriptions.

CSCW system design and educational work

Collaborative software and educational work

Social media and educational work

Technological tools to support educational work

Articulation work / Coordination and educational work

Infrastructure and educational work

Invisible and visible aspects of educational work

Games and educational work

Disruptive technologies in education

Key Questions

What role can CSCW theory / research play in supporting educational work?

What role can the workplace of education play in the development / refinement of CSCW theories, methods and designs?

Format and Outcomes

The workshop will take place over one full day. The participants of the workshop will be asked to prepare for the workshop ahead of time by reading the other workshop participants' biographical sketches as well as their position statements. However, the workshop will be more discussion-based rather than presentation-based. This is why we are capping the number of participants at 20.

The workshop will be divided into four parts. In the first part, there will be a brief introduction where participants will provide a 2-3 minute introduction of himself / herself including their interests that relate to the workshop as well as an icebreaker to keep everyone on their toes. The second part of the workshop will include a discussion of position papers as well as emerging topics. The purpose of this discussion will be to harvest some common topics and interests for small groups to discuss further.

In the third part of the workshop, we will break into small groups to discuss further and more deeply the common topics. Finally, the last part of the workshop will be a reporting back of topics as well as a discussion of next steps to build a community and further the interests of the community.

In general, the goal of this workshop is to initiate a community engaged in research at the intersection of education and CSCW. To that end, several potential action items will be sought from this workshop to lead the community forward:

- Submission of a proposal for a special issue dedicated to the issues that emerged from this workshop.

- Proposal of a research conference grant from AERA. This grant aims to fund small research conferences related to emerging issues in educational research.

- Initiate future workshops at CSCW, AERA, ISLS, CSCL, DML and CHI.

References

[1] Abramovich, S. & Schunn, C. Studying teacher selection of resources in an ultra-large scale interactive system: Does metadata guide the way? *Computers & Education*, 58, 1(2012), 551-559.

[2] Barley, S.R. & Kunda, G. Bringing work back in. *Organization Science*, 12, 1(2001), 76-95.

[3] Brennan, K. Mind the gap: Differences between the aspirational and the actual in an online community of learners. *CSCL'11 conference proceedings,* (2011), 342-349.

[4] Bryk, A. S., Gomez, L. M., & Grunow, A. Getting ideas into action: Building networked improvement communities in education. In M. Hallinan (Ed.), *Frontiers in Sociology of Education.* New York, NY: Springer. (2011).

[5] Dolle, J., Wardrip, P.S., Russell, J.L., Gomez, L.M. & Bryk, A.S. The power of educational improvement networks: A preliminary exploration. ICLS '12 conference proceedings, (2012).

[6] Forte, A., Humphreys, M. & Park, T. Grassroots professional development: How teachers use Twitter. *Proceedings of the International Conference on Weblogs and Social Media (ICWSM)*. (2012).

[7] Grossman, P., Wineburg, S. & Woolworth, S. Toward a theory of teacher community. *Teachers College Record*, 103, 6(2001), 942-1012

[8] Kelley, T.M., & Johnston, E. (forthcoming). An exploration of serious game platforms on direct citizen participation. *Public Administration Quarterly.*

[9] Lortie, D. *Schoolteacher: A sociological study.* Chicago: University of Chicago Press, (2002).

[10] McLaughlin, M.W. & Talbert, J.E. Professional communities and the work of high school teaching. Chicago, Il: University of Chicago Press, (2001).

[11] Orlikowski, W. & Barley, S.R. Technology and institutions: what can research on information technology and research on organizations learn from each other? MIS Quarterly, 25, 2(2001), 245-265.

[12] Shapiro, R.B. & Wardrip, P.S. Interactive representations of student activity to inform teacher collaborations: Results from a formative exploration. *CSCL '11 Proceedings*, (2011).

[13] Shulman, L.S. Disciplines of inquiry: An overview. In Richard M. Jaeger (Ed) *Complementary methods of researchers in education*. (3-17). American Education Research Association: Washington, D.C., 1997