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The Role of Shapers in Knowledge-Sharing

Ann Majchrzak[1], Chris Wagner[2], Dirk Riehle[3], Peter Thoeny[4], Sunir Shah[5], and Ward Cunningham[6]
1 University of Southern California, majchrza@usc.edu
2 City University of Hong Kong, iscw@city.edu.hk
3 SAP, dirk.riehle@sap.com
4 StructuredWikis LLC, peter@Structuredwikis.com
5 Meatball, sunir@sunir.org
6. Eclipse Foundation & Cunningham & Cunningham, Inc, ward@c2.com

Abstract. Wikis are a collaborative technology that allows for new ways of working and sharing knowledge. While most firms today have been experimenting with wikis, an important element of the use of wikis that has generally been ignored is the role of the people who shape the wiki pages. Shapers ensure the sustainability of a wiki community by helping to ensure that new ideas and contributions are made and organized. This panel consists of four practitioners who play critical shaping roles in their wiki communities, and two academics who will begin, moderate, and summarize the session. The panel of practitioners will share their thoughts on why they shape, how they shape, and how other communities can help to encourage participants to adopt the shaping role.

1 Introduction

Web 2.0 technologies such as wikis permit participants in virtual practice networks to engage in what we call "shaping" the content that has been posted onto a collaborative webpage. Shaping, also referred to as "gardening," involves dynamically editing, integrating, distilling, refactoring, identifying areas of convergence and discrepancies, identifying topics receiving little attention in the community, and significantly rewriting the contributions of others. Shaping has a variety of expected consequences to the community's knowledge asset: it can help to

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ensure that the "signal" doesn't get lost from the knowledge noise, help to make it easier for contributors to find knowledge, and help to encourage innovative contributions by making it easier for contributors to find different perspectives and information on different aspects of a topic. While there has been much research on why people contribute their personal knowledge to a community's knowledge asset, there is little research on those who contribute by shaping the contributions of others. In particular, the following questions have not been addressed in the research literature:

- What exactly are they doing when they shape? Is the activity more than simply editing or are they in fact trying to shape an argument, discourse, or dialogue? When might they do one (for example, just editing) vs. shaping?
- Why do people choose to shape? What are their personal motivations for shaping? What benefits do they expect to derive from shaping?
- What expectations do they have for their impact on the community? Are there specific success stories of the impact of shapers on the community's knowledge impact? Are there cases when wikis have succeeded without anyone serving a shaping role?
- Are there characteristics of shapers that distinguish them from participants in an online community that choose not to shape? What skills do they bring to bear when they shape?
- Are there characteristics of a community that are more or less appropriate for shaping?
- Are there best practice shaping activities; what are these? Are these best practices applicable for all online communities?
- Shaping has the potential of negative effects when someone attempts to move a community into directions that may not be appropriate? Has this ever happened? Is this a concern? How can a community protect itself from this happening?
- How can shaping be encouraged in a community?

This panel will address these questions. The panel is unusual as it consists of professionals both in industry and academia. The industry participants have extensive shaping experience and will address these questions by sharing their personal experiences as shapers. The academic participants have conducted research studies on shapers and will share their research results.

The panel will follow a 90-minute format in which there will be a 10-minute introduction about wikis and the wiki way, including examples of wikis, a definition of shaping, and a display of questions we are interested in addressing

Following an introduction about wikis and the wiki way, each practitioner will talk about the wikis they have been involved in shaping and provide examples of the types of shaping activities in which they have been engaged. The panelists will then be asked to address why they shape, what impacts their shaping has had on their communities, what are the characteristics of shapers that distinguish them from participants who do not shape, etc. The audience will be asked to participate in these questioning.

Finally, Dr. Wagner will summarize the discussion in a presentation on research conducted for the Society for Information Management's Advanced Practices Council on corporate wiki use and the role of shapers.

2 Panel Members

The four practitioners are well known within their wiki communities as shapers that have been instrumental in the success of their communities. They are:

- Dirk Riehle, SAP Research,
- Peter Thoeny, Founder TWiki.org & Co-founder StructuredWikis LLC
- Sunir Shah, Meatball
- Ward Cunningham, Cunningham and Cunningham, Inc & Eclipse Foundation Inc

The panel facilitators are Ann Majchrzak and Chris Wagner.

About the Panelists

Ann Majchrzak is a Professor of Information and Operations Management at the University of Southern California's Marshall School of Business. She is a specialist in the design and management of technology change. Her focus is on the development of change plans that optimize the synergy between computer-based technology, human capabilities, organizational structure, and strategic needs. She has conducted research on this synergy as well as developed tools to help technology and organizational designers, which have been used in Europe, Australia, and South and North America, with companies such as Hewlett-Packard, General Motors, Texas Instruments, Hughes, and Digital Equipment Corporation Dr. Majchrzak has written seven books, including *The Human Side of Factory Automation, Human Aspects of Computer-Aided Design*, and *A Reference Book for Performing a HITOP Analysis*. She has written over 30 refereed research articles in such scholarly journals such as *MIS Quarterly, Management Science, Information Systems Research, IEEE Transactions in Engineering Management, Organization Science*, and has two publications in the *Harvard Business Review*. She has been the principal or coinvestigator for over $3,800,000 in research grants from the National Science Foundation, the National Center for Manufacturing Sciences, Russell Sage Foundation, Kellogg Foundation, Office of Technology Assessment, and private industry.

Christian Wagner is a Professor of Information Systems and Associate Dean at the City University of Hong Kong's Faculty of Business. His research focuses on the design, implementation and evaluation of information systems to support decision making and problem solving. Dr. Wagner has written over 30 refereed articles in journals such as *Management Science, Journal of Management Information Systems, IEEE Transactions on Knowledge and Data Engineering, Decision Support Systems, Communications of the ACM*, and the *International Journal of Human Computer Studies*. He has received research funding from organizations including the National Science Foundation, Hong Kong's Research Grants Council, and the German Academic Exchange Service. Wagner's most recent research focuses on the development and evaluation of conversational knowledge management systems,

especially wikis and weblogs. Wagner is the principal investigator on a Society of Information Management (SIM) Advanced Practices Council project on the corporate use of wikis, whose results are described, in part, in this article. Previously he also co-founded, and served as board member and chief technology officer of a venture capital funded software start-up firm.

Peter Theony is the founder of TWiki, the leading wiki for corporate collaboration and knowledge management. Managing the open-sourced project for the last seven years, Peter invented the concept of structured wikis - where free form wiki content can be structured with tailored wiki applications. He is a recognized thought-leader in Wikis and social software, featured in numerous articles and technology conferences including LinuxWorld, Business Week, Wall Street Journal and more. A software developer with over 15 years experience, Peter specializes in software architecture, user interface design and web technology. He graduated from the Swiss Federal Institute of Technology in Zurich, lived in Japan for 8 years working as an engineering manager for Denso building CASE tools, and managed the Knowledge Engineering group at Wind River for several years.

Dirk Riehle is a research scientist leading the open-source research group at SAP Research, the research arm of SAP AG. Dirk received his MBA from Stanford Graduate School of Business and a Doctor of Technical Sciences from the Swiss Federal Institute of Technology, Zurich. Before joining SAP, he co-founded an on-demand business software company. He is an active researcher about open source, wikis, and all things called "collective intelligence." Dirk is also a co-founder of the Wiki Symposium (WikiSym) and a shaper of the WikiSym wiki site, a forum for research on wikis.

Sunir Shah is the instigator and shaper of Meatball, a meta-community, as well as DesignBibliography, a reference wikisite for usability design. Sunir is a proponent and implementer of participative design approaches to web-based technologies, using wikis to facilitate the inclusion of users and providing web services to usability designers.

Ward Cunningham is the "father" of the WikiWiki concept, co-authoring the seminal book, *The Wiki Way: Quick Collaboration on the Web* (Addison-Wesley 2001). Ward received his master's degree in computer science from Purdue University. As part of Cunningham & Cunningham Inc, Ward teaches people to use objects, having developed the practice called Extreme Programming. Ward created the CRC design method that helps teams find core objects for their software applications. Ward has served as Director of R&D for Wyatt Software, Principal Engineer at Tektronix Computer Research Laboratory, member of the patterns and practices group at Microsoft Corporation, founder of the Hillside Group, major contributor to the Portland Pattern Repository, and is currently the Director of Committer Community Development at the Eclipse Foundation.