

**Published as:**

Fiedler, S. (2003). Personal webpublishing as a reflective conversational tool for self-organized learning. In T. D. Burg, BlogTalks. (pp. 190-216). Vienna, Austria.

# **Personal Webpublishing as a reflective conversational tool for self-organized learning**

**Sebastian Fiedler**

Media Pedagogy, Universität Augsburg, Germany  
MEd Instructional Technology (University of Georgia, USA)  
Dipl.-Psych. (Univ.)

**Abstract**

This paper suggests that personal Webpublishing technologies and practices can be conceptualized as a reflective conversational learning tool for self-organized learning. Beyond the examination of the theoretical basis for such a claim, initial ideas for specific learning environment designs on the basis of a “conversational framework” are presented.

**Introduction**

The rather rapid dissemination of personal Webpublishing and Weblog tools has also produced a growing number of projects that want to explore the potential of these technologies for educational applications. Just like many other technologies that have been brought into the realm of human teaching and learning, personal Webpublishing can be customized until it fits a particular educational context and its underlying philosophy. No technological feature or tool characteristic prevents an instructor from supporting an authoritarian teaching style and the core assumption that “teachers-know-best” by using personal Webpublishing systems to hand out and collect assignments, to organize compulsory content and learning activities, and to micro-manage the overall pace of students.

While I don’t want to question that dynamic Webpublishing and Weblogs can be “successfully” applied in a number of different ways in educational contexts, I want to suggest in this paper that these technologies make an exceptional fit with a theoretical and philosophical perspective on human learning that departs from traditional assumptions on the nature of knowledge and learning. I strongly believe that we should try to inform our exploration of the educational potential of personal Webpublishing technologies by a careful review, evaluation, and further elaboration of our theoretical frameworks, our purposes, and our intentions for their application.

**Published as:**

Fiedler, S. (2003). Personal webpublishing as a reflective conversational tool for self-organized learning. In T. D. Burg, BlogTalks. (pp. 190-216). Vienna, Austria.

Otherwise, we might have to observe how the current educational systems assimilate and somewhat neutralize the creative and disruptive potential that some of the educational Weblogging and personal Webpublishing pioneers currently claim for these technologies.

Learning and teaching are value laden human activities and thus deserve an honest acknowledgement of personal biases and a frank statement of purpose by anybody who claims to hold a professional interest in “improving” current conditions and practices. For a number of years I have been mainly interested in the design, development and exploration of tools, methods, and environments that support people in taking control over their own learning and successfully managing their personal processes of change. While I certainly see value in formal and institutionalized formats of instruction, I believe that most of educational practice, design, and technology still follows a concept of “knowledge as product” and fails to acknowledge the open-ended, unpredictable, and continuous flow of our personal knowing and learning. It is this type of human (adult) learning that I want to support through my work.

We have developed and fine-tuned an art of teaching but we have failed to develop an equally strong art of learning. This creates increasingly evident problems in a world of fast paced cultural and technological change in which a multitude of systems of meanings and interpretation compete for our attention, adoption, and loyalty. Passing codified knowledge from a generation to the next is central to human cultural evolution, but in times of rapid change we must be careful not to codify and freeze our processes of learning in the very same way. Thus, I would like to propose that there is a growing need to study and finally support human learning as it takes place outside institutionalized and formal contexts, or as it transcends these contexts in our individual and collective lives. In addition we should also try to find ways of supporting the transition from complete dependency on educational authorities who are in control of process and content, towards a more self-organized, conscious, and purpose-driven model of personal change. I would go so far and say: responsible educational institutions of the 21st. century owe this type of preparation to the people who come to them in search for an education that is supposed to prepare them for the immediate future. We need a clear shift of attention towards the process level of learning.

**Published as:**

Fiedler, S. (2003). Personal webpublishing as a reflective conversational tool for self-organized learning. In T. D. Burg, BlogTalks. (pp. 190-216). Vienna, Austria.

I hope I have made my point of departure clear and invite you now to follow my presentation of a conceptual framework that allows the integration of personal Webpublishing technologies into an overarching quest for more self-organized learning. While there are many authors who have influenced my thinking, in this paper I want to focus on a particular strand of research and theorizing that seems to be useful for a viable conceptualization of personal Webpublishing practices and technologies as tools that can enhance our personal capacity for learning.

Over almost two decades of conceptual work and action research in various settings, a group of researchers around the psychologists Laurie Thomas and Sheila Harri-Augstein at the Centre for the Study of Human Learning (CSHL), Brunel University of West London, constructed a conversational framework for self-organized learning. The CSHL reported that this framework and a variety of reflective tools for learning have been successfully applied in many different contexts ranging from occupational to educational settings.

The conversational framework of self-organized learning was designed to build skills that would enable people to take increasing responsibility for their own learning and to move gradually towards an idealized model of a self-organized learner. The long-term goal was to develop the awareness and skills that are needed for carrying out successful self-defined learning projects according to one's needs. A variety of practices and reflective tools are applied to guide learners through this developmental process towards greater autonomy in learning. Underlying this approach are a number of convictions and assumptions that mark a departure from a philosophy of science that was mainly derived from the natural sciences and that is still influencing most of mainstream psychological and educational research.

**Traditional approaches to learning**

Traditional systems of training and education put an emphasis on expert and currently valued, public knowledge. Many people who go through these systems come to accept an “expert knows best” approach and simply learn to submit to being instructed, trained, and taught. They often develop a set of stable behavioral “robots”, habits, and personal “learning myths” that at best allow them to cope with the system’s demands. However, in novel situations and in environments where guidance is not, or only rudimentarily, provided they often fail to demonstrate efficient learning skills and strategies.

**Published as:**

Fiedler, S. (2003). Personal webpublishing as a reflective conversational tool for self-organized learning. In T. D. Burg, BlogTalks. (pp. 190-216). Vienna, Austria.

The theoretical underpinnings of traditional training and education are still predominantly based on a physical science philosophy and methodology. In most cases when the label "learning theory" is assigned to a book in psychology or education we really have a theory of instruction in front of us. Seymour Papert (1996), of MIT Medialab fame, came to a similar conclusion when he wrote: "I do not mean to denigrate these books – I am myself the co-author of one and proud of it – but only to observe that they are not about the art of learning... Sometimes they are taken as a basis for training children, but I have not been able to find them any useful advice about how to improve my own learning" (p. 10).

While teaching and instructing is conceived as a skillful practice, learning just seems to happen as a consequence. Expertise and control over content and process is "assigned" to the player who delivers the instruction within a given system. It doesn't really matter if a human or a machine delivers the instructional intervention. Ideally the pace, pattern, and final result of the intended change process is completely specified and anticipated. If everything goes well and runs smoothly it is assumed that "learning" will be brought about in the recipients and that the degree of success is measurable. Learning is "other-organized" in this model, and successful students learn how to deal with this situation most of the times. But do they acquire efficient learning skills, habits and attitudes that work well beyond these traditional contexts? Is this model an adequate framework to think and talk about human learning in general? What would happen if we started from a different set of assumptions?

**Alternative assumptions and a conversational framework for learning**

Inspired by George Kelly's personal construct psychology of the 1950's, Harri-Augstein & Thomas (1985, 1991) propose a conceptual framework for the study and improvement of human learning that starts from a set of rather different assumptions than what has driven the majority of psychological and educational theorizing.

**Man-as-scientist**

Kelly (1955) proposed to (re-)view people from a perspective he called "man-as-scientist." Kelly argues that all people attempt to construct patterns of meaning that allow the anticipation of events and the results of their actions. In this manner, their processes resemble the more

**Published as:**

Fiedler, S. (2003). Personal webpublishing as a reflective conversational tool for self-organized learning. In T. D. Burg, BlogTalks. (pp. 190-216). Vienna, Austria.

formalized procedures of scientists. While these patterns of meaning deliver a certain cognitive stability for a certain timeframe, Kelly (1955) makes clear that any part of a "personal construct system" tends to be transient. He writes: "If it were a static world that we lived in, our thinking about it might be static too. But new things keep happening and our predictions keep turning out in expected or unexpected ways. Each day's experience calls for the consolidation or some aspects of our outlook, revision of some, and outright abandonment of others" (p. 14). Kelly also stressed that life, and therefore any change process a living system undergoes, needs to be seen from the perspective of time if we want to make sense of it at all. "There are a some parts of the universe which make a good deal of sense even when they are not viewed in the perspective of time. But there are other parts which make sense only when they are plotted along a time line" (Kelly, 1955, p. 7). People come to understand their world only through "an infinite series of successive approximations" (Kelly, 1955, p. 43).

**The public mind-pool and conversation as modeling**

Harri-Augstein & Thomas (1991) interpret this ongoing search for meaning and the resulting construction of personal knowledge as "learning." In addition, they propose that a unique attribute of humans is their ability to "converse." The construction and attribution of meaning to artifacts, people, and events can be described as a "conversation" and ongoing "modeling" activity. People, understood as "separate nodes of meaning construction," continuously engage in conversations with other independent nodes of personal knowing (that is, other people) and artifacts of public knowledge. Self-organized learning primarily "concerns itself with how each individual interacts with this mind-pool through its artifacts to construct personally satisfying, significant and viable meanings" (p. 51). The mind-pool of public knowledge itself is in large parts codified, materialized, and captured in a vast array of artifacts. One could even say that our artifacts serve as an expression of the underlying systems of meaning that have stabilized over time. "Artifacts are the records of human activity... Artifacts do not occur naturally in the universe but depend on human thinking and activity. Because humans have an infinite capacity to change their minds, artifacts as records can give different messages from different people or from different times" (Novak, 1998, p. 89).

How do people interact with this mind-pool? If we follow Kelly's assumption that individuals search for meaning to establish personal "viability" (see von Glasersfeld, 1995) in a constantly

**Published as:**

Fiedler, S. (2003). Personal webpublishing as a reflective conversational tool for self-organized learning. In T. D. Burg, BlogTalks. (pp. 190-216). Vienna, Austria.

changing environment, we can look at the entire mind-pool as a (theoretical) resource for our personal knowing. Instead of training and educating almost exclusively on content and structure of public knowledge, we then might feel inclined to shift our emphasis towards the process of learning, and the methods whereby personal meaning is achieved and attributed to the various elements of our experience (people, objects, and events).

Currently many of us witness that our mind-pool is rapidly expanding, (if not qualitatively, than at least in numbers of accessible artifacts), and countless authors and commentators constantly remind us that this expansion is indeed happening. If we conceive this accelerated expansion of our mind-pool as a socially validated piece of knowledge, than it becomes increasingly apparent that gaining awareness and conscious control of our processes of learning is "more important than any piece of knowledge and expertise in the content of the mind-pool itself" (Harri-Augstein & Thomas, 1991, p. 53). If we cannot overcome the current focus on the perpetuation of codified, currently valued items and structures of public knowledge, we run the risk that we won't be able to cope with the rapid expansion of our mind-pool without being forced into fear, confusion, alienation, or a complete submission to "experts."

**A conversational framework for learning**

It is assumed that most people cannot gain awareness of their own processes unaided. Therefore, in the conversational framework learning, practitioners (psychologists, instructors, therapists, and so forth) take on the role of "tool-maker and provider, observer and joined interpreter of the evolving conversational experiment" (Harri-Augstein & Thomas, 1991, p. 6). An efficient learning conversation requires that the content and process is controlled but at the same time the individual contributions of the participants cannot be totally specified before the conversational encounter unfolds.

Personal experience can only be tapped by the learner, while action and behavior can be observed by others (e.g. learning practitioner). Both sources can deliver evidence for learning and change. Both sources can be used to support the elicitation, representation, and reconstruction of patterns of personal meaning. None of these sources should easily be dismissed or ignored.

**Published as:**

Fiedler, S. (2003). Personal webpublishing as a reflective conversational tool for self-organized learning. In T. D. Burg, BlogTalks. (pp. 190-216). Vienna, Austria.

Harri-Augstein & Thomas (1991) also remind us that "learning is a messy and rather untidy business, and necessarily so! You cannot fully know what you are going to learn until you have learnt it! As you progress, you might even change your mind about what you are going to learn and how you intend to learn it. In a sense, learning is open-ended and unpredictable" (p. 5). Nevertheless, we need to achieve greater awareness of the processes underlying this "untidy business" of personally meaningful learning if we want to improve and develop our learning skills.

Harri-Augstein & Thomas (1991) conceptualize learning within their conversational framework as "...the conversational construction of personally significant, relevant and viable meaning" (p. 6), whereby meaning is conceived as "purposeful patterns of thoughts and feelings which are the basis of our anticipations and actions" (p. 7).

**The inner and outer conversation**

Following this line of thinking another useful distinction can be drawn. If learning is understood as a continuous construction and reconstruction of reality whereby meaning is either attributed to new areas of experience, or new meanings are attributed to old areas of experience, than we can begin to talk about two psychological perspectives that feed our conversational construction process. While the exchange with external resources (people, artifacts, etc.) forms the outer conversation, we also engage in an inner exchange with ourselves. Though this inner conversation is intimately related to our outer conversation, this distinction opens up interesting opportunities for the conceptual elaboration of a conversational framework for learning. Both our outer and inner conversations are frequently limited by two major handicaps. First, we suffer from a general "lack of language for learning," and second, we are strongly influenced by disabling personal "learning myths."

**Lack of language for learning**

If we follow the assumption that learning-to-learn requires an awareness of the processes whereby meaning is created and that we usually gain control over mental processes via linguistic and symbolic "handles" it becomes clear that a lack of (process) language for learning greatly limits our outer and inner (learning) conversations. Without such conceptual tools we simply

**Published as:**

Fiedler, S. (2003). Personal webpublishing as a reflective conversational tool for self-organized learning. In T. D. Burg, BlogTalks. (pp. 190-216). Vienna, Austria.

have a difficult time conversing with ourselves and others about how our patterns of meaning can be (re-)constructed, tested, and brought under review.

Seymour Papert (1996) compares this lack of language and general "... reluctance to talk freely about personal learning" (p. 14), with "...taboos as firm as those that inhibited Victorians from expressing their sexual fantasies. These taboos are encouraged by school, but go far beyond it..." (p. 14). While Papert speculates that "... most people share a similar fear of being vulnerable by exposing themselves as having an inferior or messy mind" (p. 15) and by developing a "... whole battery of defense mechanisms" (p. 16), Harri-Augstein and Thomas (1991) follow George Kelly's (1955) notion that "... a person is not necessarily articulate about the constructions he places upon his world. Some of his constructions are not symbolized by words; ..." (p. 16). Be it taboo or inability, the development of a language for learning depends on the ability to observe, interpret, and review how one learns. Harri-Augstein and Thomas (1991) suggest that building a personal language for learning can be directly supported through the elicitation and reconstruction of and reflection upon personal learning processes. They also call for the development and application of conversational tools and templates to facilitate this process. An equally important barrier to more self-organization in learning is formed by numerous disabling beliefs about one's own capacity for learning, as they have been outlined by Papert (1996) and others.

**Personal learning myths**

Harri-Augstein and Thomas (1991) have documented the complexity and elaboration of "...learners' own beliefs, values and prejudices, or what we have come to term the deeply held robot-like personal myths about one's own learning" (p. 11). They developed a category system for the various facets of learning myths demonstrating the "... wide scope of limiting (or enabling) beliefs that learners hold" (Fiedler, 2001, p. 41). Considering the long personal histories of some of these deeply ingrained beliefs about our learning capacity, ideal conditions for learning, and so forth, I concluded elsewhere (Fiedler, 2001) that "... it appears that the transformation and adaptation of the long held and repeatedly "validated" learning myths according to the new demands of a radically different learning environment is a rather difficult process of change" (p. 41). Beliefs and convictions that over years have become a stable part of our personal construct system (Kelly, 1955) cannot easily be discarded. Candy (1991) adds to this

**Published as:**

Fiedler, S. (2003). Personal webpublishing as a reflective conversational tool for self-organized learning. In T. D. Burg, BlogTalks. (pp. 190-216). Vienna, Austria.

analysis: "... the corollary of accepting this view, ... is that if learners ... are to question the often disabling and dysfunctional assumptions they make about themselves, they would need to be confronted with opportunities to see themselves differently" (p. 378).

If one follows this line of argument, any attempt to design opportunities and tools to support a transition towards more self-organization in learning would also need to incorporate means and procedures that allow for a confrontation with and gradual modification of these disabling personal belief systems.

**Conversational tools**

So far, I have argued that much of the psychological process of meaning construction usually remains unrevealed and can only partly be expressed in words and symbols (see also Polanyi's (1967) notion of tacit knowledge). Barriers like a lack of language for learning and disabling learning myths represent another problem for a further development of our personal learning capacity. In addition we suffer from a general lack of tools for representing a "person-in-process." If we want to support the learner to become a "personal scientist" who examines her or his own processes we need to design and deliver tools that can augment and enhance the inner and outer conversation. Harri-Augstein and Thomas (1991) remind us that unfortunately "the process of education and even therapy often fail to elevate to a level of awareness of process" (p. 59). Conversational tools for learning are designed to confront this problem.

While our current (learning) culture describes and treats knowledge mostly as product with a strong emphasis on particular solutions, we need to enable each individual to gain control of her or his own processes of knowing. "The quality of our thoughts and feelings may be enhanced by talking with others or by reflecting upon our ongoing attempts to represent these thoughts and feelings in a more concrete form outside ourselves" (Harri-Augstein & Thomas, 1991; p. 70).

So what are the minimal criteria for the design of conversational (learning) tools that could support us in this endeavor?

According to Harri-Augstein & Thomas (1991), conversational tools need to support the following aspects:

**Published as:**

Fiedler, S. (2003). Personal webpublishing as a reflective conversational tool for self-organized learning. In T. D. Burg, BlogTalks. (pp. 190-216). Vienna, Austria.

- recording and representing one's personal patterns of meaning or actions
- reflecting upon the representations
- reiterating this process of explication and reflection
- shifting from a task-focused level to a learning-focused level of awareness
- support the construction of a personal mini-language to converse about process of learning
- support the gradual internalization of the tool

A reflective conversational learning tool generally supports the personal modeling and re-modeling of behavioral and experiential aspects of the learning process. Specialist tools can be applied to systematically monitor, analyze, record, reflect, reconstruct, and review specific aspects of our thinking, feeling, and acting. Since evidence for learning can either be derived directly from our own experience or from observations of our actions and behaviors, we can design conversational learning tools that explicitly incorporate these two data sources.

Some tools can support our reflection via the direct elicitation and representation of patterns of meaning, while other tools deliver a record of behavior or action on which we can reconstruct our experience. If our goal is the enhancement of certain learning skills, for example, a careful record of the actual learning activities could greatly facilitate a systematic review and re-modeling of the existing repertoire of learning skills and strategies.

As I have outlined before, it is assumed that the externalization of inner conversation makes it available for review and development, thus encouraging and amplifying the acquisition of better skills for self-observation and intentional change. Conversational tools are designed to achieve the conscious reconstruction of the learning events which we often cannot fully experience in-situ. Coombs & Smith (1998) suggest that conversational learning tools "... serve as reflective *psychic mirrors* that enable systematic and self-organized management of the learning process that ultimately governs the learner's behavior" (p. 24). In the same article Coombs & Smith (1998) also describe conversational learning tools as "... a self-awareness-raising coaching device" (p. 24).

**Published as:**

Fiedler, S. (2003). Personal webpublishing as a reflective conversational tool for self-organized learning. In T. D. Burg, BlogTalks. (pp. 190-216). Vienna, Austria.

To make this notion of "conversational learning tools" more tangible let us take a brief look at an example. In their action research projects Harri-Augstein & Thomas (1991) made extensive use of, so called, Personal Learning Contracts (PLCs).

While the use of learning contracts is not a new tool within educational practice it is the adaptation of this format within a conversational learning framework that is of interest here. A PLC is a coaching device for a task-bound learning project. Its template guides the learner, facilitated by a learning coach, through a process of explication of important elements of any intentional learning project. The generic elements of a PLC are the following:

- a statement of purpose based on personal needs
- a statement of how one intends to go about learning (strategy, tactics, resources, activities,...)
- an explication of criteria for evaluation of one's success
- a review of the overall process

Placed in a conversational framework, five activities around a PLC can be described.

- First, a learning project has to be negotiated and a PLC has to be explicated.
- Second, the intended learning activities are carried out in an actual situation.
- Third, a self-debrief of the actions taken is conducted.
- Fourth, the PLC has to be reviewed through retrospective comparison with the original purpose, learning activities, and evaluation criteria that had been negotiated.
- Fifth, learning strengths and weaknesses are diagnosed and a new cycle of PLC is planned.

It is important to note that the explicated elements of the PLC remain open for further refinement and negotiation while a learner carries out the intended learning activities. Harri-Augstein and Thomas (1991) believe that much of what is most useful happens in the conversational process itself. Beyond what is recorded during a PLC driven conversation, the inner psychological processes provoked by the structured procedures remain unrevealed. The ultimate goal is the internalization of the procedures and explications that the PLC conversational template suggests, thus enabling a learner to model the role of the learning coach through a conversation with her- or himself.

**Published as:**

Fiedler, S. (2003). Personal webpublishing as a reflective conversational tool for self-organized learning. In T. D. Burg, BlogTalks. (pp. 190-216). Vienna, Austria.

The PLC illustrates a number of core characteristics of a conversational tool for reflective learning. It is a content-free template that scaffolds the inner conversation with oneself, and the outer conversation with a learning coach, and other resources inhabiting the personal learning domain for a given task-bound project. As a generic conversational tool it provides a framework for action and focused reflections related to a particular learning task. While its initial application is greatly facilitated and enhanced by a learning coach, it holds the potential to become a self-coaching device for autonomous learning projects.

**Personal Webpublishing and Weblogs as a conversational learning tool**

It has been argued so far that the use of specialized conversational tools should enable people to distance themselves from their own processes to be able to observe themselves. The power of these conversational tools lies not within the specific procedures or representational formats they suggest, instead it is assumed that "...they can only augment the process of researching learning when used conversationally" (Harri-Augstein & Thomas, 1991, p. 262). How can we use personal Webpublishing technologies in general, and Weblogs in particular as reflective conversational tools that serve to model aspects of experience and behavior?

**Recording and representing one's personal patterns of meaning or actions**

Looking at the emerging practice of personal Webpublishing we can easily observe that quite a few people continuously externalize and represent patterns of meaning and observational records of their own actions and the actions of others through their Weblog authoring. Weblog authoring focuses on a steady flow of items over time, "logging" ideas, thoughts, reflections, commentaries, and observations in a sometimes almost impressionistic manner. Since Weblog authors can write, edit, revise, and publish from any networked computer through a standard Web browser (if they use a centrally hosted Webpublishing system) they are not tied to a single machine anymore and do not depend on a set of specific software tools for content creation and maintenance. Thus we witness Weblog authors interfacing with their writing spaces several times throughout the day, from public libraries, their friends' homes, through mobile devices, out of their offices, and from their bedrooms. Frequent updates have become the norm of personal Webpublishing projects.

**Published as:**

Fiedler, S. (2003). Personal webpublishing as a reflective conversational tool for self-organized learning. In T. D. Burg, BlogTalks. (pp. 190-216). Vienna, Austria.

Given this pattern of use, we can say that the recording and representation of items of experience either in-situ or within temporal proximity to their actual occurrence has already become a frequent practice for a growing number of people. The organization of Weblogs as a collection of smaller content units usually called "posts," seems to foster this focused expression of smaller chunks of meaning, too. The Weblog's native unit of expression, the "post", is a rather self-contained item of variable length normally addressing a fairly concise topic. It is also time-stamped, automatically archived, assigned its own permanent URL, and usually displayed in reverse chronological order.

Currently, meaning is mostly encoded in writing, but posts can also contain images, sound recordings, video-clips and any other digital formats that can be served on the Web. Depending on the availability of tools and the production skills of Weblog authors, text-based representations of meaning or records of action and behavior can be enriched or even substituted by these other types of digital media. Within a reflective conversational framework it is more important that the representations can be used to reconstruct experience, than to find a "correct" media-mix of some sort. Whatever format a person finds useful and appropriate for the expression of personal meanings should be used to build a purposeful collection of artifacts that document how a learning project unfolds.

Hyperlinks, the Web's native format to express relations, enrich representations of patterns of meaning in countless ways. Hyperlinks point to material that is quoted, referred to, critiqued, praised, or that somehow elaborates, illustrates, and enriches the content of a particular Weblog post, thus helping us to embed our externalized thoughts, feelings, and actions in a wider Web of relations that carries numerous context cues.

Every Weblog post is accessible through its permanent URL and often carries a number of meta-data entries such as author name, assignment to a content topic, keywords, and so forth. Some Webpublishing systems even support the creation of customized meta-data schemes for the categorization of published items. Assigning meta-data is another great instrument to ensure that a specific pattern of meaning is represented and suggested in a single Weblog item.

**Published as:**

Fiedler, S. (2003). Personal webpublishing as a reflective conversational tool for self-organized learning. In T. D. Burg, BlogTalks. (pp. 190-216). Vienna, Austria.

**Reflecting upon the representations**

Artifacts can represent personal learning experiences, accounts of learning activities, products created as part of the project, learning resources, and reflections. Such a "learning log" captures the history of a learning project in action and records the personally meaningful material that can foster and facilitate reflective practices such as conversations with one-self and others. Externalizing these activities through writing and visual representation, and publishing them in a Web-based format, opens up the individual and rather isolated projects to a wider community, thus creating additional opportunities for discussion, critique, negotiation, and shared knowledge construction. The triggers for focused reflection and conversation can now come from many more different sources. I will come back to this issue later in the article.

The built-in chronological organization and navigation capability of personal Webpublishing systems can significantly support efforts of focused, intentional reflection. Other forms of systematic retrieval such as text-based search, directories of assigned topics, and so forth, can play an important role, too. We can search for similarities and differences among our items of meaning, construct new relationships, reconstruct relationships previously forgotten, and feed our results back into our personal Webpublishing spaces. Thus, personal Webpublishing systems also support the reiteration of the process of explication and reflection – another of the design requirements for reflective conversational tools mentioned above.

**Reiterating the process of explication and reflection**

So far, I have mostly examined the features of personal Webpublishing from the perspective of a single person who uses the technology for the gradual creation of a collection of artifacts in relation to an ongoing learning project. Such a collection of digital artifacts can then function as the basic material for reflective conversational practices resulting in further elaboration, organization, and integration of patterns of meaning and action over time.

I have already suggested that one's inner conversation is usually intertwined with a number of outer conversations with material and human resources that feed into our meaning making activities in significant ways. Personal Webpublishing technologies offer interesting opportunities to intentionally support and integrate various parallel conversational exchanges. This is where RSS, the lingua franca of content syndication and aggregation, comes into play.

**Published as:**

Fiedler, S. (2003). Personal webpublishing as a reflective conversational tool for self-organized learning. In T. D. Burg, BlogTalks. (pp. 190-216). Vienna, Austria.

This simple, but efficient and rather robust, encoding standard allows for the explicit modeling of content flows, feedback loops, and monitoring procedures of various kind, thus supporting an ongoing reiterative process of explication and reflection.

Most personal Webpublishing applications already offer the automatic generation of RSS encoded output streams of the content a particular author publishes. This capability allows basically anybody to get into the content syndication and aggregation business. So far we have seen a remarkable proliferation of a simple and somewhat rough subscription model on the basis of RSS. RSS encoded output files of different sources can be aggregated, monitored, categorized, and sometimes even fed back into the editing and (re-)publishing flow of particular Webpublishing solutions.

RSS becomes really interesting when we gain more control over the creation of specific RSS output files. If we are able to create specific output files we can design content flows that directly support our conversational meaning making activities. Being able to put out a RSS encoded summary of all items that I have previously categorized in a personally meaningful way does not only allow others to subscribe to this particular output channel, but also offers opportunities to feed the newly packaged content into my personal learning space. There I can display it, for example, on a dedicated page along other related content or hyperlinks to additional material. Thus I can support my search for higher order concepts, similarities, or new patterns of meaning. Of course, this becomes even more powerful when I can directly incorporate items in a specific RSS feed that are sitting somewhere on the Web. Now, I can string together distributed content in meaningful ways and feed this back into my conversational learning process.

Since RSS encoded content can come from anywhere we also get a whole new toolkit for the intentional design of content flows between people. The more specific and fine-grained the RSS outputs provided by individual Weblog authors, the more focused will be the support for conversational exchanges. Instead of sifting through a general output file with an impressionistic collection of items we can then decide to monitor only items that focus on a particular topic or theme. In addition we can actually negotiate and agree upon temporary content flow designs between people who agree to join a collaborative learning project of some sort.

**Published as:**

Fiedler, S. (2003). Personal webpublishing as a reflective conversational tool for self-organized learning. In T. D. Burg, BlogTalks. (pp. 190-216). Vienna, Austria.

While this is certainly not the place to for deep exploration of the specifics of RSS and the design opportunities that it holds, even a quick and rather sketchy review like the one above demonstrates that we have only started to explore this technology for the intentional design of content flows that can support the conversational exchanges with ourselves and others.

**Shifting from a task-focused level to a learning-focused level of awareness**

Currently, we can only speculate if Webpublishing practices also support a shift from task-focused to learning-focused awareness. Systematic collections of observational data are still very rare. Nevertheless, I would like to argue that we can find a growing body of evidence that people who start to experiment with personal Webpublishing as a reflective conversational tool for their own learning, often seem to review and improve their own processes over time. They tweak the templates of the Webpublishing space, their workflows, their categorization systems, navigation schemes, their personal organization of content syndication and aggregation, and so forth. It appears that the content free nature of personal Webpublishing systems and the particularities of their use can contribute to a gradual shift towards process awareness that often results in an explicit quest for optimization. The chronological organization of Weblogs probably facilitates this process awareness, too. If we begin to use personal Webpublishing as a tool for the "conversational construction of personally significant, relevant and viable meaning" (Harri-Augstein & Thomas, 1991, p. 6), it is likely that the continuous production of meaningful items and their chronological organization and display can also facilitate a growing awareness of how one constructs meaning over time.

I would also like to maintain that the often reflective, informal, and very personal writing style that we can find in current Weblog authoring practice, facilitates the elicitation and explication of personal learning myths. These personal myths often surface when people try to make sense out of statements, suggestions, and comments of other authors on topics such as learning, workflows, processes, teaching, knowledge, change, growth, and problem-solving. Being confronted with representations of patterns of meaning from other nodes of personal knowing (that is people), people often activate their deeply engrained "personal learning myths," and frequently come up with statements like:

- What we really need is ...
- Real learning requires ...

**Published as:**

Fiedler, S. (2003). Personal webpublishing as a reflective conversational tool for self-organized learning. In T. D. Burg, BlogTalks. (pp. 190-216). Vienna, Austria.

- ... doesn't work for me because....
- I learn only if I do ...

This is wonderful material to engage in learning-focused conversations with yourself and others. It seems that the world of personal Webpublishing potentially provides a constant confrontation with other patterns of meaning and alternative interpretations. In turn, this confrontation facilitates the elicitation of personal learning myths.

**Supporting the construction of a personal mini-language to converse about the process of learning**

In its rather short history, personal Webpublishing as a practice has already produced a vocabulary, albeit rather small, of its own. Every day more people get familiar with terms like Weblog, post, permanent link, title, item, category, RSS feed, aggregation, syndication, referrer, time stamp, archive, editor, authoring, topic, trackback, meta-data, comment, outline, and so forth. The dynamic development of the entire field of personal Webpublishing frequently adds new terms and concepts to this emerging mini-language. It might be too early to speculate about the long-term effects of this specialist language on the way we converse about projects of individual and collaborative meaning construction. Nevertheless, I suspect that this growing vocabulary of personal Webpublishing might serve as a proto-language for the conversational construction of a personal language for learning. Its current vocabulary is certainly too limited to model the construction of new meaning but it might provide some conceptual "handles" that could be merged with other existing vocabularies. I am thinking here of Ausubel's (1963) notion of Meaningful Learning, von Glasersfeld's (1995) Radical Constructivist ideas on meaning construction, Piaget's (1972) notion of Perturbation, Assimilation, and Accommodation, Kelly's (1955) Personal Construct Psychology, Harri-Augstein & Thomas' (1991) Learning Conversations framework, Schön's (1987) description of the Reflective Practitioner, Novak's (1998) Human Constructivism, and other theoretical models of human meaning construction. This issue certainly requires more thought and discussion than I could possibly provide in this paper.

**Supporting a gradual internalization of the tool**

Finally, we are confronted with the question if personal Webpublishing practices and procedures could gradually be internalized. On the currently available data basis we probably cannot answer

**Published as:**

Fiedler, S. (2003). Personal webpublishing as a reflective conversational tool for self-organized learning. In T. D. Burg, BlogTalks. (pp. 190-216). Vienna, Austria.

this question. We would need a couple of qualitative research projects that try to determine if and how personal Webpublishing practices influence the way people go about their learning and meaning construction in general. The often reported addictive potential, the growing accessibility and integration of the technologies in our daily routines, the emerging interfaces with mobile devices, the feedback mechanisms, the focus on contextualization and process optimization, all this suggests that personal Webpublishing practice holds the potential for an internalization of some of its procedures and characteristics. I think it is even likely that we will see theories of human cognition (like memory, meaning construction, etc.) that resemble more the distributed, loosely- coupled, client-server architecture of personal Webpublishing networks than the hierarchical information-processing models that the micro-computer revolution brought along.

**The need for implementation studies**

Though we are not in a position today to determine the applicability of all design criteria for reflective conversational tools for learning, I would like to suggest that we have an emerging technology in front of us that indeed holds the potential to be applied in this way. In order to explore this claim I believe that we currently need implementation studies in various settings that follow a rapid prototyping approach. Another strand of parallel research should examine how people already make efficient use of the available technologies and practices when they manage their personal learning. Indeed, I would suggest that some of the Weblog authors I tend to follow regularly (see <http://Seblogging.cognitiveArchitects.com> for a list of my sources) display important characteristics of self-organized learners and already use personal Webpublishing as a reflective conversational tool for their own learning and change. Obviously, personal Webpublishing offers a great toolkit for people who are already managing their learning in a highly autonomous and self-organized way beyond formal institutional boundaries. This leaves us with an interesting question: Does personal Webpublishing also offer means to facilitate a transition towards self-organized learning within formal educational contexts?

**Designing conversational learning environments with personal Webpublishing practices and technologies**

If we follow the argumentation that many people currently suffer from a lack of language for learning, a set of disabling learning myths of various kind, and an epistemological mindset that treats knowledge as product and learning as a mere reception of prepackaged and publicly

**Published as:**

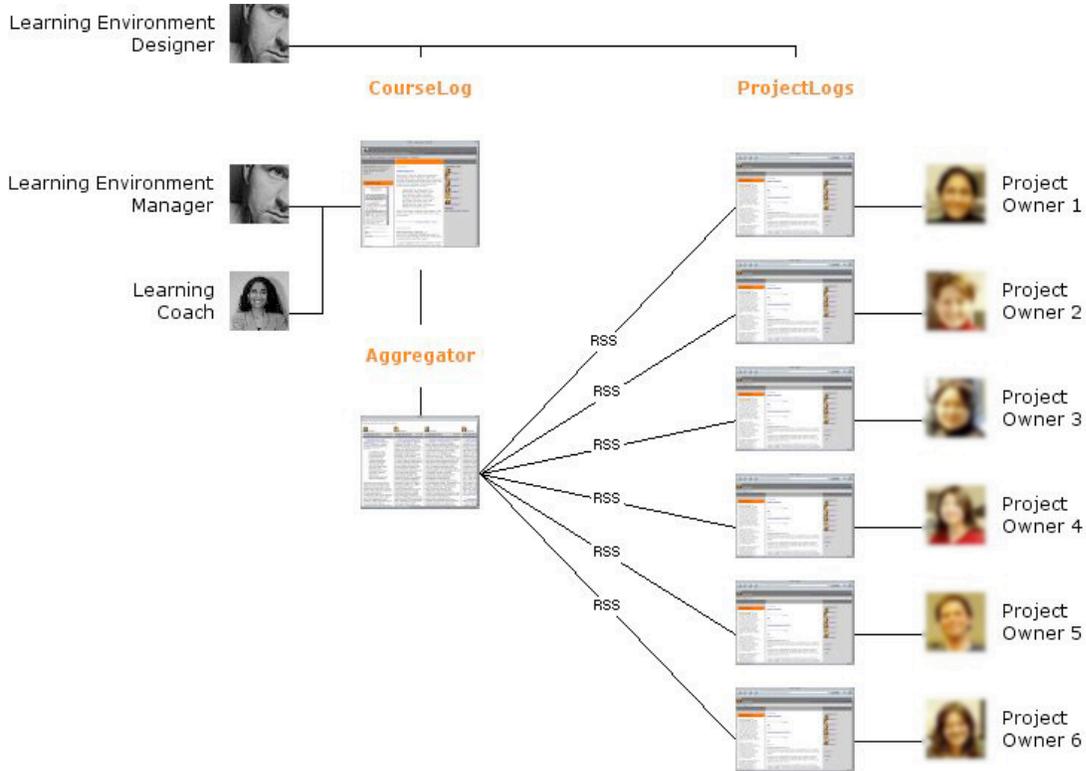
Fiedler, S. (2003). Personal webpublishing as a reflective conversational tool for self-organized learning. In T. D. Burg, BlogTalks. (pp. 190-216). Vienna, Austria.

encoded patterns of meaning, then learning practitioners need to design environments and tools that allow people to (re-)gain control over their personal meaning making processes. It won't be enough to put promising technologies in front of people who are by no means prepared to integrate them in meaningful ways. If we want to tackle deeply ingrained myths, change robotic behavior, and raise awareness of process, then we should be prepared to work somewhere on the edge of teaching, counseling, and facilitating through tools and technologies. It sounds paradoxical, but a change process towards self-organization in learning requires carefully designed environments and tools. But the learning environments and tools need to be designed to finally empower the learners. They should facilitate meaningful learning and reduce the need for rote learning of information. Novak (1998) reminds us: "Knowledge that we have learned meaningfully, that we have constructed from a union of our actions, feelings, and conscious thought, is knowledge we control" (p. 31). Thus our learning environment designs and tools should lead "... to the learner's control over the acquisition and use of new knowledge. This empowers the learner to become autonomous and in charge of his or her destiny. Needless to say, education for empowerment is often a risky business. It also tends to threaten the status quo" (Novak, 1998, p. 33).

Finally, I would like to present a rough sketch of a pilot project that I run together with my friend and collaborator Priya Sharma at Penn State University. At Penn State we are trying out some initial ideas and design prototypes for a conversational learning environment on the basis of personal Webpublishing technologies. More specifically, we try to facilitate advanced graduate students of the Instructional Systems Program who are carrying out largely self-managed learning projects within the context of a special topics class. While it is too early to report on our observational records, I would like to share the overall architecture of our prototype environment and the rationale that drove our initial design.

**Published as:**

Fiedler, S. (2003). Personal webpublishing as a reflective conversational tool for self-organized learning. In T. D. Burg, BlogTalks. (pp. 190-216). Vienna, Austria.



As you can see in the graphic above we differentiate between four different roles within this learning environment design:

- Learning environment designer
- Learning environment manager
- Learning coach
- Learning project owner

These roles do not have to be fulfilled by different people, though we think that a distribution of work and responsibility holds significant advantages.

The learning environment designer is responsible for the initial set up of the technological infrastructure, the template design of the personal Webpublishing spaces, conversational procedures, and planned events.

The learning environment manager monitors the ongoing use of the Webpublishing spaces, comments on technical features and procedures, assists participants if they have technical

**Published as:**

Fiedler, S. (2003). Personal webpublishing as a reflective conversational tool for self-organized learning. In T. D. Burg, BlogTalks. (pp. 190-216). Vienna, Austria.

questions or troubles, introduces interface changes and additions as the need arises, and works out bugs or technical problems if they should occur.

The learning coach negotiates needs and purposes, helps to define a manageable scope for a project, facilitates conversational exchanges among the participants, introduces and suggests resources, comments on the task-focused activities, negotiates criteria for evaluation, coaches and counsels if people need focused learning conversations, creates opportunities for face-to-face meetings, augments, highlights, models, and feeds back good practice, and scaffolds the overall process by providing mini-interventions and assignments to trigger inner and outer conversations.

The learning project owners spend most on their time working on their particular learning projects, documenting their meaning making process through the externalization of thoughts, observations, questions, chunks of newly constructed meanings, reflections, and so forth. In addition they provide feedback and commentary to each other through face-to-face encounters and their personal Webpublishing spaces.

We decided to work with a centrally hosted Webpublishing system (Userland's Frontier/Manila package) that allows for a controlled introduction of a limited set of procedures and functionalities and a clear division of labor, responsibilities, and editorial rights according to the role model we had in mind. The backbone of our conversational learning environment is a cluster of independent sites that are visually and functionally interlinked. A course log functions as the publishing space for the Learning Coach and the Learning Environment Manager. Learning Project Owners can comment on items that are published there and open up independent discussion topics if they feel the need. Besides the content flow that is produced as the learning projects unfold, the Course Log site also holds more static content like a description of course procedures, timetable, required artifacts, useful links, and so forth. It also functions as a jump board to the learning community's individual project logs and offers an overview (via a display of RSS encoded streams from the project logs) of the latest publishing activities in the community. If the Learning Manager assigns a "Community News" category label to a particular item, the item automatically gets fed to all the project logs where it appears in a news box on the left side of the project log interface. This push-technology is used to scaffold the overall process of the different Learning Project Owners.

**Published as:**

Fiedler, S. (2003). Personal webpublishing as a reflective conversational tool for self-organized learning. In T. D. Burg, BlogTalks. (pp. 190-216). Vienna, Austria.

The project logs offer a similar set up like the course log. Project owners can create and publish log items, story pages, pictures, and files (e.g. pdfs). Initially they can only edit two additional interface elements. There is a section for useful links they would like to incorporate permanently in a their interface and an "about" page where they can describe the scope and purpose of their learning project. This design allows Learning Project Owners to focus on feeding their project logs without spending long hours on getting familiar with the tool and its interface. We also attempt to scaffold the Learning Project Owners production of focused log items via a pre-configured category system that consists of the following elements:

action

reflection

commentary

question

resource

misc.

We see this category system as a starting point that can be edited, consolidated, or expanded according to the needs of an individual Learning Project Owner. So far, we are not sure if such a pre-configured category system holds significant benefits for novice users of personal Webpublishing systems. It might be better to coach the construction of individual category systems right from the start.

The Learning Project Owners are also encouraged to produce focused items of reflection and representations of patterns of meaning through mini-assignments handed out by the Learning Coach. In our context, for example, every Learning Project Owner is expected to produce a conference paper as the final artifact marking the end of the project. In order to capture snapshots of the developing conceptual organization of the paper, Learning Project Owners are asked to externalize the current state of affairs through visual concept maps that get published in the project logs at various points of time. These mini-assignments facilitate the inner conversation while they are getting created and offer interesting material to engage in outer conversations with peers and the Learning Coach.

**Published as:**

Fiedler, S. (2003). Personal webpublishing as a reflective conversational tool for self-organized learning. In T. D. Burg, BlogTalks. (pp. 190-216). Vienna, Austria.

The modular design of our environment allows each individual Learning Project Owner to make use of her or his learning log beyond the boundaries of the special topics class that provided the initial context for our pilot. Ideally people would make use of their personal Webpublishing spaces over an expanded period of time incorporating a series of learning projects. This, of course, requires either the gradual acquisition of more authoring skills on the side of the Learning Project Owners, or the development of an overall infrastructure where Learning Environment Managers and Learning Coaches are available beyond any class boundaries.

Our overall design rationale is also influenced by the SER design heuristic of the Center for Life-long Learning and Design at the University of Colorado at Boulder. Fischer (1998) proposes a design heuristic for computational learning support systems that begins with the intentional *seeding* of new practices and procedures through an initial design. This is followed by supporting and facilitating an *evolutionary growth* phase through which people construct new patterns of meaning and action and adapt the system according to their emerging needs. Only after a certain period of evolutionary growth an attempt is made to review, consolidate and reorganize the patterns that have emerged, before the results of these activities get *re-seeded* into an improved design. So far, we have only tried to *seed* a new practice through our initial design efforts and we are currently observing what patterns of use evolve as the participants act within the learning environment and make use of the personal Webpublishing tools. The review and consolidation phase will take place over this summer and we will report on our observations at the EARLI conference (<http://earli2003.psy.unipd.it/>) in Padova, Italy, in August 2003, before we start with another implementation project in the fall.

At this point in time I can only say that we have seen some encouraging manifestations of reflective conversational practices within our pilot community. Nevertheless, we have also encountered major barriers and obstacles to personal change and the construction of new patterns of action and meaning. It will be important to examine what we can do to address these issues effectively through improved designs and specific interventions.

Let me close this rough sketch of our pilot project set up with a few quotes from the project logs of our participants. They are meant to illustrate some of the reflective conversational potential for

**Published as:**

Fiedler, S. (2003). Personal webpublishing as a reflective conversational tool for self-organized learning. In T. D. Burg, BlogTalks. (pp. 190-216). Vienna, Austria.

personal learning that we hope to activate through an incorporation of personal Webpublishing practices in our learning environment designs:

- Learning Project Owner 1: "As I continue to write my report, the same thought keeps running through my mind. How will the quality of my review be impacted by the length of the report, the amount of times I have to review the report, and the end of the semester crunch. This has caused me to reflect on what might make this review process "easier" and improve the quality of my reflection..."
- Learning Project Owner 2: "... I believe that this blogging tool has become more of a way to communicate my perspectives in a safe manner and receive feedback from quality peers that I trust and respect. I believe that this trust and respect was already present, but through our in-class discussions this has been enhanced by 100 times. I know where everyone is coming from, what they may be going through, and what we have in common."
- Learning Project Owner 3: "Maybe sometimes the postings are just like a book-keeping for me, but I don't care how beautiful my writing should be or how powerful my comments should be, as long as the posting make sense to myself and at least it may work as an organizer for myself. Then I don't have to waste several hours trying to dig out a thought, an idea, a term I vaguely remember I read somewhere, ..."
- Learning Project Owner 4: "Weblogging helps me record my changing ideas about the content of this class, because my ideas are expanded through reading, discussing, writing, thinking, and getting feedback, and so they are changing, or growing I can say..."

I hope that we will see more implementation studies of personal Webpublishing systems for the support of self-organized learning in the near future. Sharing our observations and experiences we could finally get a conversation going on appropriate designs of learning environments and tools for the development of our learning capacity.

**Published as:**

Fiedler, S. (2003). Personal webpublishing as a reflective conversational tool for self-organized learning. In T. D. Burg, BlogTalks. (pp. 190-216). Vienna, Austria.

## **Personal Webpublishing networks as conversational learning environments for self-organized learners**

I think it is quite illuminating to conceptualize the emerging networks of personal Webpublishing outlets as a giant, self-actualizing conversational learning environment for self-organized learners. We can observe almost in real-time how individuals use personal Webpublishing technologies to facilitate and feed their own change and learning processes. Watching this rich fabric of learning conversations unfold makes you wonder why people still believe that e-learning is all about content delivery and the production of polished instructional products. People in the personal Webpublishing realm successfully learn outside any institutionally organized system of instruction. They exhibit remarkable skills for the initiation and maintenance of personally meaningful learning projects. They construct their personal learning domains on the fly while they are listening, observing, and sometimes contacting others who publish visible traces of their meaning making activities on the Web.

These published and continuously updated collections of artifacts represent a living part of the constantly expanding mind-pool. While the public mind pool offers innumerable artifacts that can be incorporated into a personal learning domain, these artifacts cannot be aware of themselves and they cannot engage in conversation with someone who tries to interpret their underlying patterns of meaning. A book simply won't tell you that you are interpreting its content in a way that was not intended by its author. Personal Webpublishing changes this picture considerably. Suddenly we are not dealing with artifacts alone. Behind every personal Webpublishing outlet is another self-reflective being, another node of personal knowing, often ready to engage in conversational exchanges of various kinds. This is when the boundaries of roles begin to dissolve, when we become learners and facilitators at the same time, when we become aware of each other's personal learning myths, when we begin to construct new meanings in the light of our experience, and when we become a learning resource for each other.

I believe that self-organized learners will quickly understand the potential of personal Webpublishing networks and practices, while other-organized learners will need considerable support and carefully designed interventions before they can profit from this dynamic conversational learning environment.

**Published as:**

Fiedler, S. (2003). Personal webpublishing as a reflective conversational tool for self-organized learning. In T. D. Burg, BlogTalks. (pp. 190-216). Vienna, Austria.

**References**

- Ausubel, D P., (1963). *The psychology of meaningful verbal learning*. New York: Grune & Stratton.
- Candy, P. C. (1991). *Self-direction for lifelong learning*. San Francisco: Jossey-Bass Inc.
- Coombs, S.J., & Smith, I. D. (1998). Designing a self-organized conversational learning environment. *Educational Technology*, 38(3), 17-28.
- Fiedler, S. (2001). *The Studio Experience: a case study on self-direction in learning within a formal instructional setting*. Diplom thesis in psychology. University of Erlangen-Nürnberg.
- Fischer, G. (1998). Learning technologies in support of self-directed learning. *Journal of Interactive Media in Education*, 98(2), <<http://www-jime.open.ac.uk/98/94>>.
- Glaserfeld, E. v. (1995). *Radical Constructivism: a way of knowing and learning*. London: Falmer Press.
- Harri-Augstein, S., & Thomas, L. (1985). *Self-organised learning. Foundations of a conversational science for psychology*. London: Routledge.
- Harri-Augstein, S., & Thomas, L. (1991). *Learning conversations*. London: Routledge.
- Harri-Augstein, S., & Webb, I. M. (1995). *Learning to change*. Maidenhead: McGraw-Hill.
- Kelly, G. A. (1955). *The psychology of personal constructs*. New York: W.W.Norton & Company.
- Novak, J. D. (1998). *Learning, creating, and using knowledge*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Schön, D. A. (1987). *Educating the reflective practitioner*. San Francisco: Jossey-Bass.
- Papert, S. (1996). A word for learning. In Y. Kafai & M. Resnick (Eds.), *Constructionism in practice: designing, thinking, and learning in a digital world* (pp. 339). Mahwah, NJ: Lawrence Erlbaum Associates.
- Piaget, J. (1972). *The principles of genetic epistemology*. New York: Viking.
- Polanyi, M. (1967). *The tacit dimension*. New York: Doubleday.

**Published as:**

Fiedler, S. (2003). Personal webpublishing as a reflective conversational tool for self-organized learning. In T. D. Burg, BlogTalks. (pp. 190-216). Vienna, Austria.