

Autoethnography: Critical appreciation of an emerging art

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***Abstract:** In this article, the author discusses how she applied autoethnography in a study of the design of hypermedia educational resources and shows how she addressed problematic issues related to autoethnographic legitimacy and representation. The study covered a 6-year period during which the practitioner's perspective on the internal and external factors influencing the creation of three hypermedia CD-ROMs contributed to an emerging theory of design. The author highlights the interrelationship between perception and reality as vital to qualitative approaches and encourages researchers to investigate their reality more fully by practicing the art of autoethnography.*

***Keywords:** autoethnography, practitioner research, connoisseurship, hypermedia design*

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Goodness of fit

Autoethnographic research has not yet enjoyed the popularity and respect of its ethnographic predecessors. With its use of self as a source of data, it has been criticized for being self-indulgent, introspective, and individualized (Holt, 2003). However, the autoethnographic method I employed in the study of my work as a hypermedia designer was the only method that could have answered my research question (Duncan, 2001). I wanted to know how I could improve my design practice. It was the beginning of the multimedia-hypermedia revolution, around 1993. I worked in a small hypermedia development team on which I was the only designer. Hypermedia refers to the type of computer-based multimedia environment wherein learners are free to choose their own pathway through the program content. Although other members of the project team were experts in academic content, they had no experience in new media design. I was the only one making decisions at the interface. Every day, I had to answer hundreds of questions about the visual and interactive style of the program for which there were no widely accepted standards. Generally, I would rely on my background in graphic design, computer-based presentations, and education to make decisions—decisions that I considered essential to the learners' experience of the program and as important as the content. In my mind, I played through a constant dialogue of possibilities, experiences, predictions, if-then statements, and learner scenarios to help make the choices necessary for the intense activity of on-screen experimentation.

Up to that point in my practice, waiting for feedback from the project team or the results of user-testing methods had proven inadequate for evaluating hypermedia design. At that time, few people had the specialist language or cognitive awareness to describe the nuances of their responses to computer interactions. In established media, such as books or oil paintings, a lifetime of exposure and knowledge of accepted standards prepares users to comment on even the slightest deviations. By comparison, the novelty of new technologies can often be dumbfounding (Lidstone & Duncan, 1996).

As well as the newness of the technology, these feedback methods were often flawed, because they reflected the activities of students taking part in a trial rather than students with a genuine need to learn from the program content. As seen in the following reflective journal entry taken after watching videotapes of user trials for Hugo, a program for master's students about conducting research, the video revealed more about the users' mixed motives for taking part in the trial than about the value of on-screen interactions.

Reflective journal entry 4C4h

She [User 1 from Group 2] wanted to make herself more known to the academic staff of the university; she wanted them to know that she was good at using technology, very experienced and able to give a learned perspective and she wanted the staff to know that her son was involved in the design of "this type of system" as proof of her elevated status as a user and therefore her value to the human interaction taking place. These imperatives lay behind her use of the program and were evident through her comments and body language—she took control of the mouse, she was in charge of operating the program, she frequently turned to address her comments to the academics sitting in the room behind her rather than her colleague who was supposed to be sharing the mouse and the computer experience. According to these inner purposes and motivations, her experience of the program was absolutely successful. She did make closer contact with academic staff, she did advertise herself as a confident user of

technology and she did take the opportunity to elevate her status. Usefulness is defined in part by the purposes for which a thing is used. These purposes need to be taken into account when determining the value of user's comments.

To answer my research question, How do I improve my practice of hypermedia design?, it became clear that what I needed to do was externalize my inner dialogue of decision to find and develop fully the central themes and outstanding questions that were emerging. Such a study was essential to undertake before even considering how to design user evaluations more appropriately. In short, I needed a method in which the lifeworld and internal decision making of the researcher were considered valid and noteworthy. I needed methods that encouraged systematic reflection and ensured a scholarly account. I needed a means of analyzing evidence that not only organized a record but also enabled discovery. What I needed was autoethnography.

The evolution of autoethnography

Autoethnographies are case studies that follow the tradition of ethnographic research. Ethnography's extensive history as a research method began with the work of anthropologists during the early 1900s. At that time, ethnographers focused on exploring and describing the lives of "primitive" people, eager to show what life was like from the "native" point of view. In the 1920s, researchers such as Malinowski (1995) lived and worked among their study participants for months or sometimes years at a time in strange and foreign locations, such as the Trobriand Islands off the coast of New Guinea. Over time, Victorian interests in the exotic cultures of distant lands fell out of fashion. Ethnographic studies were more likely to be conducted closer to home. They took place within the researchers' own cultural context, were of shorter duration, and were more selectively focused. They documented and explored the working cultures of local institutions, such as hospitals and schools, or the subcultures of the urban fringe and investigated specific aspects of a situation, such as gender differences, power relationships, or group structures. In each case, the ethnographer was an "outsider" to different extents, seeking to understand the lifeworld of others by participating in the research situation and becoming an "insider" as the situation allowed.

In the 21st century, ethnographic approaches are being acculturated into a postmodern academic world. The desire to discover and make room for the worldview of others suits a postmodern sensitivity, in which no one right form of knowledge exists and multiple viewpoints are acknowledged and valued. The narrative approaches typical of ethnography are now changing to facilitate a more personal point of view by emphasizing reflexivity and personal voice (Mykhalovskiy, 1996; Tierney & Lincoln, 1997) and recognizing the researcher as representative of a multilayered lifeworld, itself worthy of expression. Autoethnography is part of this methodological trend that Denzin and Lincoln (1994) have identified as the fifth moment in the history of qualitative research, in which participatory research and experimental writing feature more strongly. The essential difference between ethnography and autoethnography is that in an autoethnography, the researcher is not trying to become an insider in the research setting. He or she, in fact, is the insider. The context is his or her own. Through autoethnography, those marginalized individuals who might typically have been the exotic subject of more traditional ethnographies have the chance to tell their own stories (Russel, 1998).

Reviewing the history of this research tradition, then, one can perceive a particular thread of ethnography as evolving from an exploration of the lifeworlds of those most foreign to the researcher through investigations that touched closer to home by examining the worlds of those

living within the researcher's own society, to studies that explore the lifeworlds of the researchers themselves.

The value of inner knowing

An important assumption held by autoethnographers and qualitative researchers in general is that reality is neither fixed nor entirely external but is created by, and moves with, the changing perceptions and beliefs of the viewer. This subjective view, often criticized from a positivistic standpoint, has gradually come to be seen as an acceptable platform for the practice of research. During the latter half of the 20th century, authors such as Polyani (1958), a chemist, made successful cases for the significance and value of subjectivity to the research endeavor. Polyani wrote of the impossibility of removing the passion and commitment of the observer and emphasized that these passions and commitments were essential to experiencing and investigating the world. Peshkin (1985) discussed the potential to exploit positively the subjectivity of the researcher, whereas Eisner (1991) presented the researcher as a connoisseur and "instrument," whose personal schema and past experiences provided the sensibilities that made investigation possible.

For Eisner (1991), the eye of the researcher should not be considered a mechanical device for seeing. Rather, it should be understood as enlightened by human qualities and virtues such as intention, purpose, and frame of reference. Schwandt (1994) described the essence of being a connoisseur as

a kind of heightened awareness or educated perception—a particular kind of attention to nuance and details, to multiple dimensions or aspects—that comes from intimate familiarity with the phenomenon being examined. The connoisseur's eye, as a metaphor for all the senses, is in a state of enlightenment.
(p. 129)

Under these conditions, the records of research based on this theoretical framework will, naturally, bear the signature and voice of personal interpretation (Connelly & Clandinin, 1994). They will not present a record of the world the researcher has visited or been a part of; rather, they will show how the researcher made sense of that world.

In my research, the desire to make sense of my unique world required such a theoretical framework. From my position at the center of the design enterprise, I could report directly from my experience as a practitioner, a perspective essential to the job of describing the tacit knowledge (Polyani, 1967) or knowing-in-action (Schön, 1987) involved in the study focus: the experience of designing hypermedia environments. This inner dialogue of design, or "conversation with materials," as discussed by Schön (p. 78) is described as being intensely research-like in nature, involving constant experimentation, exploration, and hypothesis testing. Schön suggested that these tacit activities are characteristically difficult to make verbally explicit but stated that through reflection, it is possible to surface and describe these intuitive understandings. He noted,

Our descriptions are of different kinds, depending on our purposes and the languages of description available to us. We may refer, for example, to the sequences of operations and procedures we execute; the clues we observe and the

rules we follow; or the values, strategies and assumptions that make up our “theories” of action. (p. 25)

An example of the recording of strategies and assumptions that made up a theory of action are shown in the following reflective journal entry written during the design planning for *On the Move*, an environmental education CD-ROM for children (Lidstone, Duncan, & Luchich, 1996).

Reflective journal entry 5C4a

Today’s second major design decision related to the use of buttons. We decided not to include any buttons or operational features as such on the screen. We did not want to lose any “screen real estate” to these items so that the users’ focus would remain on the stories rather than on “the game of clicking buttons.” We decided to use a mystery/exploratory approach to navigation instead. Hotspots will be hidden behind elements of the screen graphic which, when found, will move the story sequence forward. We believe this approach honors the informational weight of visual images, requiring the user to look around carefully within the pictures. We hope this will slow the tendency to “click for the sake of clicking” and encourage an appreciation of the integral meaning of the images to the story content. This screen style contrasts with many other educational programs I have examined in which images are treated as supplementary or decorative to the text.

It is the surfacing of precisely these types of descriptions, understandings, and theories that autoethnography enables by drawing on the methods of data collection and analysis typical of traditional ethnography, and it is precisely the use of these ethnographic methods that differentiates autoethnographic studies from other storytelling approaches, such as autobiographical and narrative research.

Data collection and analysis

Although ethnographic and autoethnographic reports are presented in the form of personal narratives, this research tradition does more than just tell stories. It provides reports that are scholarly and justifiable interpretations based on multiple sources of evidence. This means autoethnographic accounts do not consist solely of the researcher’s opinions but are also supported by other data that can confirm or triangulate those opinions. Methods of collecting data include participant observation, reflective writing, interviewing, and gathering documents and artifacts.

Of these various methods, participant observation is by far the most characteristic of ethnographic work and the most important for autoethnographers. Because of the value that autoethnography places on the personal experience of the researcher, participant observation is the core practice through which reflections are developed and all other data collection activities are organized. In traditional ethnographic research, gaining permission to become a participant observer in the lifeworld of those being studied is often a challenge. However, for autoethnographers already fully immersed in the focus situation, issues of accessibility, permissibility, and unobtrusiveness do not present such obstacles.

The challenge of participant observation in an autoethnography lies in mastering the art of self-reflection. A system of keeping reflections must be found that suits the nature of the research setting. In my research, my first act of self-reflection was to develop a retrospective account of my design practice for the 3 years prior to the beginning of the research period. This activity facilitated an assessment of my past involvement in hypermedia design and enabled me to identify certain important themes within my work that helped refine the study focus. In particular, I began to recognize the extent to which learners needed to be self-directing when using hypermedia resources and realized that many hypermedia applications were not presented in a way that supported the development of self-direction. These initial themes provided guidelines for the ongoing literature review and contributed to the development of a language of description that could be applied to my design activities and reflections.

Reflective journal summaries (Time period 1, item 1.4)

As a designer, I experienced a sense of unlimited exploration and exponential expansion of possibilities facilitated by the new equipment. However, by the end of this time period I had begun to feel that too many possibilities were not necessarily a good thing. The creative energy of design was constantly dissipating in an endless sequence of beginnings and new ideas. Some limitations needed to be set in order to draw conclusions but I was unsure on what basis they should be devised. I wondered if my experience as a designer did not also reflect the experience of users of this new medium. Borrowing from my experience in the visual arts I sought the identification of an underlying purpose as a source of direction and creative limitation.

Reflective journal summaries (Time period 3, item 3.2)

I realised that I had taken a fork in the road of design and developed a particular attitude towards the task of writing for multimedia. An interest in pointing to the real world of the user began to emerge as a significant theme as I reflected on my approach to writing as one in which the creation of relevance to the context of the user and a direct conversational style of writing were emphasised.

Following this retrospective account, I collected over a 1-year period reflections-in-action consisting of handwritten entries, averaging two A4 pages each, created twice weekly and sometimes supported by other documentary evidence such as e-mails, memos, or sketches. At the time of writing, I created titles for each entry, such as Presenting Choices, Storytelling, Student Visitor's Experience, or The Two-Point Disaster, and entries were numbered and indexed at the end of each notebook. I kept six notebooks in all.

The notebooks served four main purposes. First, the process of taking notes externalized assumptions and reactions to people and events that might otherwise have remained unacknowledged. Second, the writing served to crystallize ideas and promote design thinking, capturing the inner dialogue of the creative process. Third, the writing process helped to define and resolve inner conflicts, and fourth, the notebooks provided a record of turning points in the evolution of understandings and concepts, contributing to the maturation of ideas and the eventual emergence of a theory of design. Identifying these different purposes of reflective writing contributed to the process of self-reflection and added definition to what was recorded.

Other evidence that documented the inner experience of design and development of ideas included workplace artifacts such as

- computer screen images (printed in grayscale at various stages of development, labeled, dated, and kept in a project file),
- interaction sequences and nodes (stored on hard disk),
- storyboard sketches and graphic sketches created with pencil and paper (labeled and kept in project files), and
- loose notes and diagrams, such as concept maps, that referred to work sequences and problem-solving strategies (also labeled and kept in project files).

Data that helped identify and document the external constraints and contextual factors that influenced the task of design included items such as

- resource material related to project content such as photographs, government reports, video tapes, audiotapes, reference books, and writing prepared by other members of the design team (labeled and stored in project files where possible);
- directives from project initiators, grant proposals, letters, memos, meeting minutes, and published articles based on project work (labeled and stored in project files);
- visitors' comments, letters, and e-mails (labeled and stored in project files); and
- technical log entries recording computer problems and solutions, software manuals, and software and hardware advertising material.

For example,

Technical log entry 5T2b

Although the CD-ROM burner we have purchased was marketed as working equally well on a Macintosh or PC, again the technology has not lived up to its claim. The burner has crashed at least 8 times this morning. The technician from whom the equipment was bought has no answer to the problem and, although funding is running out again, we must face the prospect of finding an outside "expert" at \$150 per hour to help us resolve this.

It should be noted that as I am a practitioner actively involved in experimentation, my purpose in data collection and analysis during the research period was not only to understand the design experience further but also to apply understandings as they emerged, thereby changing the objects of experimentation. Such a situation is implied by the term knowing-in-action (Schön, 1987) discussed earlier. In this way, the analysis can be considered constructive and differs from the type of analysis conducted by researchers who remain outside the situation they are investigating and who have no opportunity to create change directly in the research setting.

After this 1-year period of reflective writing and formative analysis, a summative analysis was undertaken in which an overarching process of categorization and theming (Strauss & Corbin, 1990) took place. This analysis stimulated deeper and more detailed reflections in which recurring problems, changes in attitudes, and significant concerns developed into meaningful units. These units formed the foundation of the autoethnographic narrative and provided the basis for theory development. In the world of research, the term theory can have various meanings. Theories can be considered descriptive, explanatory, predictive, or propositional (Fawcett &

Downs, 1992). Theories of one kind can lead to the development of theories of another. For example, explanatory and descriptive theories might do the groundwork for the development of later predictions or propositions. In general, autoethnographic studies such as my own are more suited to creating theories than testing them. At the time of my research, there were few existing design theories in my field because of the newness of the technology. Therefore, I did not set out to test an established theory; rather, the autoethnographic process allowed me to explore and develop theories for improving the practice of hypermedia design that might be tested later. In particular, I felt a shift in direction away from designing for theatrical immersion in a computer program toward supporting the self-direction of the students by reminding them of their own reality and purposes.

Reflective journal entry 8C7a

The type of decision making that is characteristic of self-directed learning is based on an acute and continually monitored awareness of the learner's real world. The active engagement of self-direction is an on-going internal dialogue in which the learner identifies goals in response to their own needs, pursues those goals and evaluates them. For this activity, the user's attention does not so much need to be drawn into the imaginary world of the computer. Instead they need to be reminded of the reality of their own life-world and encouraged to connect with it. Such an approach of pushing the user to be aware of and take responsibility for what is happening on their side of the computer interaction is necessary in order to facilitate and encourage the application of self-directed learning strategies so necessary in high-choice learning environments such as hypermedia or the Internet. Is this the true meaning of a learner-centered approach?

Judging the quality of an autoethnography

I established the quality of my autoethnographic study by addressing six key issues regarding the legitimacy and representation of my account. These issues related to study boundaries, instrumental utility, construct validity, external validity, reliability, and scholarship. It was necessary for me to delineate these issues clearly because of the potential bias against the value of inner knowing within research culture. As Holt (2003) experienced when seeking to publish his autoethnography about being a new teacher in a university physical education course, accounts that do not show how traditional criteria have been addressed often meet with rejection. Although autoethnography might belong to Denzin and Lincoln's (1994) fifth moment of research (experimental writing and participatory research), to a certain extent we are still moving through the fourth moment, in which issues of legitimacy and representation are problematic. Unlike Holt's study, my autoethnography could possibly be placed at the conservative end of the continuum of autoethnographic reporting. Although I was the main source of data, I was not the only source, and I took pains to describe the criteria by which my research could be judged to save my reviewers such pain.

Study boundaries

As with any case study, delineating the study boundaries is essential to defining and reporting the research. I described the boundaries of my study using the four facets of time, location, project type, and point of view. A significant 6-year period was covered by the study, during which

numerous major developments in technology occurred, including the widespread acceptance of the CD-ROM format, the expansion of the Internet, the standardization of Internet navigational devices, and the rapid increase in users' expectations of interactivity. The study was located within a school of the Faculty of Education at a major Australian university and involved grant-funded projects for development and research into the use of stand-alone hypermedia educational CD-ROMs. The study was observed from the designer's point of view and relied on that consistent perspective to provide a quality of description that would otherwise be impossible.

From this delineation of the boundaries of my case, I aimed to show clearly the appropriateness of applying an autoethnographic methodology. Only someone actively involved in working with new technologies within an academic context during the time of their introduction and rapid development could have the opportunity to reflect on the task of design and record those influences from which theories of design might emerge.

Instrumental utility

The instrumental utility or usefulness of an autoethnographic case study, although immediately serving the stated purposes of those directly involved in the research, avoids the criticism of being only self-serving by proving how it is useful to others with similar concerns. Eisner (1991) considered the utility of a qualitative study as one of the most important ways of judging it and suggested three types of usefulness that might be considered. First, Eisner stated that a study is useful if it helps readers to comprehend or understand a situation that is otherwise enigmatic or confusing. The findings of such studies result in a sense of satisfaction as confusion is lifted and "things fit into place" (p. 58). The experience of hypermedia design reported in my research was such an enigmatic and confusing situation that needed clarification. The autoethnographic process served this purpose, identifying the various elements involved in design and allowing priorities to emerge that gave these elements direction and a sense of place.

Second, Eisner (1991) suggested that qualitative studies might be considered useful if they in some way help readers to anticipate future possibilities and scenarios. Even though my study reported the particulars of a unique work setting, it allowed tentative predictions to be made about elements that might be present in other design settings and supplied ideas for improvement in practice that might be applied to future cases. These ideas related to the difficulties of using new and unstable technologies, of working with hypermedia in educational contexts, and of how principles of self-directed learning might inform the design of hypermedia interactions.

Third, Eisner (1991) suggested that qualitative studies are useful if they act as guides, highlighting particular aspects of a situation that might otherwise go unnoticed. My autoethnographic account provided such a guide, highlighting the elements involved in hypermedia design, the contextual factors influencing design, and the underlying assumptions of those contributing to design that might greatly influence the appearance of end products. These factors had not been well accounted for in previous studies (Tergan, 1997), as researchers had largely ignored the presence and influence of these variables and their potential relationship to users' responses.

Construct validity

Yin (1989) considered that the requirements of construct validity for qualitative case studies are met if the correct operational measures for the concepts being studied have been established. In my research, the concepts being studied stemmed from my experiences of hypermedia design. Although autoethnographic writing emphasizes the researcher's first-person account as the primary source of evidence, this account was substantiated in the three main ways suggested by Yin (p. 41) as being appropriate.

1. Multiple sources of evidence were used along with the researcher's personal account. As described previously, these sources of evidence included letters, memos, meeting minutes, computer interactions stored on disk, prints of screen designs, preparatory sketches, visitors comments, e-mails, and other related items.
2. A chain of evidence was established in which data were catalogued and indexed, and recurring or developing themes recorded in a way that facilitates retracing.
3. Drafts of the narrative account were reviewed by three other key members of the design team, thus contributing to the verification of my description of the design process and interpretation of events.

External validity

The uniqueness of my particular case of hypermedia design and its autoethnographic character meant that it was never expected to be a representative example. As Connelly and Clandinin (1994) have noted, personal experience methods result in autobiographical writing that presents one reconstruction of an individual's narrative but not necessarily the only one. The task of meeting the criterion of external validity, therefore, does not lie in finding a design setting to mirror my experience or point of view. It lies in the strength of the themes and theories contained in the study's findings and how they might be applied to other situations (Yin, 1989).

The findings and theories I reported provided three main ways in which the study might be validated externally. First, the research identified and described the experience of working with particular elements of hypermedia design, such as link types, link structures, and dialogue devices, that might be identifiable in other design settings. Second, the study identified various contextual constraints and influences on design, such as the experience of team members, assumptions about writing for new technologies, and expectations of technological automacy, that might be applied to other cases. Third, the research identified ways in which principles of self-direction might be applied to hypermedia resource design that might be relevant to other cases.

Reliability

Yin (1998) has suggested that the criterion of reliability is met by establishing a case study protocol that would allow someone else to follow the researcher's procedures. Although no two hypermedia design settings will be exactly the same, a basic study protocol, such as that employed in my research, could be applied to another setting. This basic protocol required that

1. the study be located in the practitioner's work setting;
2. extra time be allowed for the job of making tacit knowledge explicit, recording and developing reflections, and conducting a literature review;
3. in the first instance, a retrospective account be developed to sensitize the researcher to important themes and issues already present in the research setting;
4. a reflective journal be kept systematically;
5. files for documentary evidence be kept based on significant events or project stages;
6. multiple sources of data be collected and categorized;
7. data collection and analysis be ongoing and used to inform practice;
8. a narrative account be constructed based on the data and conclusions drawn from that account; and
9. the account be reviewed by others involved in the research setting.

Ensuring a scholarly account

Autoethnographic accounts can suffer from several shortcomings resulting in an unscholarly representation of the research experience. These shortcomings include overreliance on the potential of a personal writing style to evoke direct emotional responses in readers but offer no deeper levels of reflection or analytic scholarship; lack of self-honesty and disclosure about the motivation for doing the research, resulting in the misuse of the role of author to justify actions or advocate the interests of a particular group; failure on the part of the researcher to see the relationship between personal experience and broader theoretical concepts; and his or her inability to defend against reasoned critique while still making claims to knowledge (Parks, 1997). These criticisms of unscholarly writing might apply particularly to some of the more experimental forms of autoethnography in which the boundaries of scholarship are merged with artistic expression as a way of challenging the limitations of what is normally accepted as knowledge in academic contexts. However, in my research, as stated earlier, I took a conservative autoethnographic approach.

I chose an autoethnographic method not for its poetic license but because it provided the most appropriate means of investigating the research focus: the tacit understandings of a practitioner involved in the complex task of hypermedia design and the most likely way, given the circumstances, of developing design theories. The narrative account of the research moved beyond mere emotional expression by demonstrating deeper levels of reflection and analysis and by employing a style of authorship that highlighted connections to broader themes. The collection of multiple sources of evidence, the establishment of a chain of evidence, and the use of peer review also helped establish my report as a scholarly rather than an emotional or unreasoned account.

Study findings

Conducting this autoethnographic study allowed me to recognize and explore my interest in supporting the development of self-directed learning through interaction design. By the end of the study, I had identified a design theory that cut through the hype surrounding the potential of new media to be a panacea for learning and provided a framework for creative decision making and communication between production team members. Drawing on pedagogical understandings of the developmental stages of self-directed learning, this framework addressed the needs of target audiences according to their level of self-direction. Typically, a beginner in a new subject area will have a low level of self-direction. Therefore, hypermedia or high-choice learning environments, in which users can go anywhere at anytime, are not recommended for these learners. If hypermedia resources are used, they should be modified to include more structured interactions, more interactions that give feedback on progress, fewer navigational choices, and fewer media options.

Learners with some knowledge of a subject area are more likely to be successful in high-choice learning environments. However, the results of my study suggested that even these students might benefit if support for the exercise of self-direction is integrated with the content. In particular, designers should be aware that students often rely on a click-and-browse approach in hypermedia programs because not enough information has been provided about the size, quality, or level of difficulty of the media and interactions on offer. Without these media cues, students cannot easily manage their learning or develop learning strategies and are more likely to report feelings of being lost or overloaded with information. The design of interactions should also encourage students to clarify their individual learning goals and consider the personal relevance of the content, thus shifting learners from passive to active mode. In addition, tools should be provided that allow students to conduct personalized self-evaluations of their progress and experiment with new learning strategies to extend their strategy repertoires. Together, these imperatives point to a metalevel of design aimed at increasing learners' capacity for self-direction. The resulting self-directed learning ethos might be essential to our finding our way in the complex and high-choice learning environments of the future.

Conclusion

If the value of autoethnography is to be understood more clearly by the wider research community, those engaged in this emerging art need to assist their readers in judging its worth. To include in the research report adequate justification for the choice of this method and demonstration of how appropriate evaluation criteria might be applied are two ways in which researchers can help reviewers appreciate what autoethnography has to offer.

Both researchers and reviewers should consider how the description of the boundaries of the study brings to life the research setting and define its unique qualities. They should look for how the account clarifies confusing issues, uncovers hidden aspects of a situation, and/or anticipates future possibilities. They should consider how the account might be substantiated through the use of multiple sources of evidence, logical chains of evidence, and peer review or they should look for reasons why such substantiation need not take place. Research protocols should be made explicit, so that others interested in personal experience methods can apply them to their own settings, and, in particular, attention should be paid to how more universal themes and theories of relevance to others are developed from the individual experiences reported in the research. Although risks are taken by any researcher using a personal experience approach such as

autoethnography, there is a place in scholarship for shining the light of research where one stands for attempting to know one's own experience and sharing that knowledge. As qualitative researchers, willing to confess that reality is based on perception, why should we not examine more fully what constitutes our perceptions?

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