PERSONAL PUBLISHING AND MEDIA LITERACY

Hoem, Jon[1] (with Schwebs, Ture[2])

[1]The Norwegian University of Science and Technology, Trondheim, Norway. E-mail: jon.hoem@hib.no
[2]Bergen University College, Bergen Norway. E-mail: ture.schwebs@hib.no

ABSTRACT

Based on a discussion of the terms "digital competence" and "media competence" this paper presents challenges of designing virtual learning arenas based on principles known from w*eblogs* and *wikis.* Both are personal publishing forms that seem promising in an educational context. The paper outlines a learning environment designed to make it possible for individual users to organize their own learning environments and enabling them to utilize web-based forms of personal communication and publishing as part of a collective. This is done within a broader context which critically explore the pedagogical and conveying potentials and limitations of digital technology.

1. INTRODUCTION

The importance of mastering basic digital skills is often emphasized, but it does not seem clear what these skills should include. In Norway the Department of Education usually understand "digital competence" as the ability to use word processors, spreadsheet, presentation programs and Internet search. In addition it is preferred that students get to know critical use of sources and interpretation and analysis of different genres (NOU 2003). Some of these skills are associated to knowledge of and reflections on qualities of the digital media, but for all practical purposes one ends up with a *tools* oriented approach to the use of computers. As a result the teaching is reduced to a relatively trivial software instruction. A more reliable digital literacy should have a different point of departure than just mere consuming of content and use of software.

Our network based information society is characterized by an increasing access to information about a growing number of subjects. Consequently knowledge of where and how to find information tend to become more important than knowing the information content by heart. Changes of production, distribution and use of digital media lead to a different social structure: Large parts of the society can be organized into smaller units. Many of the Scandinavian welfare state functions are replaced by a "user service" concept: People are expected to act as individual consumers of information services and be able to find relevant information whenever they need it. Correspondingly they implicitly are expected to be able to *produce* information of different kind in order to express individual abilities and needs.

The information society favors those who are able to develop strategies to *process* large amounts of information and its relevance in different contexts. An important skill will be the ability to *reformulate* information in order to meet personal needs. This brings up new expectations to people as individuals, not at least the ability to critical reflection and a comprehensible media literacy. Those succeeding in the future, are probably going to be the ones who can contextualize information that initially is presented in separate contexts (including separate media), and subsequently reformulate the content so the new "text" fulfills a specific set of communication needs. In other words: comprising, condensing and evaluating different sources of information turns into a fundamental part of media literacy.

2. FROM "DIGITAL COMPETENCE" TO "MEDIA COMPETENCE"

The ability to apply different media formats expressing opinions and needs includes using similar techniques as the "movie director": Arguing through facts and emotions, and exploiting original and media specific effects, gives more impact than an "objective", non dramaturgic presentation of facts. In the end this is all about contextualizing, emphasizing certain specific elements and presenting these in an appealing way.

Consequently education needs to focus not only on basic skills, but also social skills, and the ability of developing personal learning strategies. Today the general ICT education mostly focuses on user competence, that is program tool instruction, the use of premade learning material and net resources designed for specific learning goals. The students learn how to search the net for information, how to send e-mail, and how to use word processors and presentation applications. This is of course important, but it contributes only in a limited way to acquire a more reliable media competence focusing on the

possibilities of utilizing the qualities of the digital media in new ways. Neither are the students introduced to working methods that emphasize the cooperative and collective production forms of the digital technology.

"Digital fluency" includes being able to create objects of meaning (Resnick 2002:2). The end products are text, sound, (animated) pictures developed through a collaborative production process. The structure and agenda of the group can not be tied to specific tasks, however, rather to a shared knowledge. In this kind of fellowship the individual will profit from other individuals knowledge, but he will also have to contribute to the common knowledge in ways not necessarily limited to his own individual goals.

3. COMMON KNOWLEDGE AS A BASIS FOR INDIVIDUAL KNOWLEDGE

Cooperation may be understood as a form of communication with no clear distinction between sender and receiver. Still any communication process starts with a individual initiative. A person makes information accessible by putting together data (text, pictures, sound) from a variety of sources with existing information in a new context. Through this contextualizing and sharing of information, new knowledge is constructed. This common knowledge forms – along with the personal thinking and evaluation based on former experiences – a basis for individual insight and understanding, or "wisdom". In this sense wisdom is understood as a kind of meta-knowledge based on personal experience. Wisdom may not be shared in the same way as knowledge is shared, but wisdom represents an individual starting point for sharing information with others (Shedroff 1999).

All learning start with established facts: the learner systematizes information from a number of sources. In order to transform facts to individual wisdom, the learner connects new information to existing knowledge. This is a "maturing" process, often over a long period of time. Learners will have different conditions; some adopt information quickly because they connect it to former knowledge, others need for different reasons longer time. The question is: Can we organize education in a way that better take into account the fact that students are located on different stages during their maturing processes?

A person can build knowledge in relation to a group of people, where each individual defines and changes his knowledge based on one or several roles in a social network. Given this network is a "local" fellowship consisting of few persons, the chances are good for constructing a common and stable frame of reference. The aim is a learning environment where the participants interpret information within the same context. However, large parts of the knowledge we acquire is connected to a wide, "global" network of interest. Each of us participate in numerous networks like that. An obvious example is our role as consumers and interpreters of mass media content. Net based learning also offers very varied information contexts, and subsequently very varied information presentations. The interaction between collective and individual knowledge is crucial when existing knowledge is to be refined to wisdom. In all kinds of learning it is a substantial challenge to design learning environments that connects individual and collective processes.

The process where general data are systematized and refined to individual wisdom may be related to Lev Vygotsky's term "internalization process": an external activity is reconstructed as an internal activity. Vygotsky points out that any cultural development initially emerges on a social level before moving to an internal level (Vygotsky 1930). Vygotsky's thinking about social processes and internalization is brought up to date by newer theories of learning, which emphasize that it is not possible to make a clear distinction between what individuals learn and how they utilize what they learn during cooperation with others. Jean Lave's and Etienne Wenger's model for situated learning connects individual learning to what they call "community of practice", a fellowship defined by the shared knowledge rather than by the assignments they actually do. Such communities of practice exist because they add a surplus value to the participants, but they cannot be linked to a specific project or task. It may take a long time to establish a community of practice, and it may be active after the formal organized project or group is ended (Wenger 1998).

We may attend any community of practice in the periphery where individuals may act as a lurkers or within an area where the unwritten rules of the community allow trying and failing. Gradually, while one gets acquainted with the means of communication, he will be more confident and be active in the ongoing communication.. Thus learning may be understood as participation in a social process, not only an individual acquisition of knowledge. Learning occurs through this process where individual knowledge, goals, and intentions are changed through socio-cultural practice (Lave & Wenger 1991:29).

In designing a net based learning environment it is crucial to accommodate both individual and collective aspects of communication. Too many LMS are designed with technical brilliance in terms of collectively sharing and refining information, but they do not meet the communicative needs of the novice. That does not imply that all participants necessarily have to be communicatively active all the time. The dynamics are embedded in the exchange between "passive" consumption and "active" production. It is, however, a considerable problem if users having interesting information neglect to communicate it due to technical or social reasons.

The most successful net based communities seem to be those which are designed in ways that makes it possible to participate on different levels. Thus new users can be socialized into the community's publishing culture with a pace adapted to each individual. Therefore we believe that *personal publishing* is particularly interesting. Personal publishing has an individual basis that allows collective participation, and the borders between production, publishing and consumption are blurred.

4. PERSONAL PUBLISHING AS A COLLECTIVE ACTIVITY

Blogs and *wikis* are two forms of personal publishing in which students rapidly become active producers of information, and in which individuals can participate on their own premises, in terms of form, content, pace and frequency. By "personal publishing" we understand publishing processed by individuals in relation to a community. As opposed to traditional mass media publishing, personal publishing does not rely on any editorial staff. The content is formed, elaborated and altered individually, although normally based in a common "dialog" including a number of people. Also personal publishing differs from other individual forms of production by being linked to media specific communities of interest.

A blog is normally individual or connected to a limited group of "senders". Blogs are particularly interesting because they form an individual basis which exploits the most important assets of digital media: communication and hyper-linking. Thus information exchange is possible, a group can establish a knowledge network with close internal connections and simultaneously having open links outwards. The technology easily allows numerous hypertextual connections, which may be expanded to a practically self organizing knowledge network.

In it's simple form a blog is nothing more than a personal web page with certain technical characteristics and genre features: The page is frequently updated, from several times a day to a few times per week. The posts (or postings) normally consist of short texts carrying many hyper-links, they are dated and presented with the newest text on top. The main page contains a set number of posts, older posts are moved to an archive. A pointer is linked to each post, in this way any given post is hyper-linked, even after it is moved to the archive.

A blog is typically written by one individual or a small number of persons. Many blog applications offer commentary functions where readers may express their opinions on the posts, and also establish links to other web pages. Thus blogs carry many of the formal characteristics known from the net discussion fora. A very important difference is that only the blog owner(s) may post on the top level (similar to establishing a new thread in a discussion forum). Commentaries may be connected directly to a blog post, or they may be placed in another blog. This blog notifies the first blog about the related commentary (so called "trackbacks" and "pingbacks"). This function is developed in order to utilize the WWW in a new way: being able to make links from web pages written by others to your own page. Two-way pointers (transclusive links) are important in any hypertext system, as described by Ted Nelson when introducing the term "hypertext" (Nelson 1999). Nelson's idea is very ambitious; trackbacks and pingbacks is by far a more pragmatic solution – a link between a post (or web site) and the post that comments the content in the original post. This system enables people to establish discussions between separate blogs without having to write their commentaries in other people's blogs. Trackbacks make it easier to develop a collective information network over a period of time. This opens a new pedagogical potential.

Wikis are net based publishing which we also characterize as personal publishing, but in contradiction to most blogs (where one or a few persons edit the posts), wikis are based on a "anyone post and edit a posting"-principle. This principle is particularly well functioning with a large number of users. The net based encyclopedia *wikipedia.org* is probably the best known example. But this technology obviously has a considerable potential for developing a common content resource even in smaller communities of practice.

Both blogs and wikis need active producers, but their focus on the individual differs. Blogs have one person or a small number of persons posting. This probably makes blogs well suited for "discussions" where people want to participate on different levels. If all users are comfortable with a certain communication mode, traditional discussion fora may turn out as more efficient, but weblogs represent an intermediate solution: halfway home page, halfway forum. Being able to chose to make a comment either linked to somebody's blog posts or in one's own blog is a kind of variation that gives a person possibilities to do what he finds best in terms of expressing his opinion.

The combination of blogs and wikis offers a flexibility well adapted to net based learning resources. This becomes particularly clear the moment users reformulate central parts of the content on the web pages they link to. Hypertextual networks, where new nodes and links between the nodes are added through a common process, will create and visualize relations between the contributors, and it leads to interesting selection possibilities. An interesting post will rapidly be linked to from several other blogs, and the number of links is an expression of its relevance and importance within an open information network.

Blogs offer a simple form of publishing that is easy to adapt to individual needs. Therefore one have the advantages of a

free choice of technical solutions for different needs (for example by offering one kind of blog for teachers, and another kind for students). To a certain extent this is contrary to most LMS's, where the same solution is offered for all students no matter academic differences and different pedagogical and didactic needs. Blogs in general have simplicity as their common feature, which lowers the publishing threshold for people not particularly interested in web technology.

5. PERSONAL PUBLISHING AS "STAGING"

Weblogs and wikis are solutions that exploit a lot of the digital media specific characteristics. Contrary to traditional word processors and presentation applications, personal publishing applications do not use metaphors and working methods that imply linear, sender conducted forms of presentation. Blogs and wikis mean that the participants to a larger extent have to face commentaries and links made by other bloggers.

This do not imply that personal publishing has emerged without any references to former media. Especially weblogs have clear common characteristics with the paper based diary or journal, but they differ by offering the content posted on the open web. Blogs also are related to personal home pages, and are located in the border land between private and public sphere, which opens up a number of exiting – and challenging – perspectives. When solutions like this are introduced to elementary school, the content cannot of course be accessible on an open network, but even if it is restricted to a smaller group, this type of publishing will be substantially different from communication in other media.

The relationship between individual and community becomes close, and will sometimes merge completely, like in wikis, where there is no difference between senders and receivers. All are users, but they play alternate roles. In personal publishing the role concept is interesting, especially in terms of blogging. Like on the personal home page, the blog becomes an arena where a person highly can control his own appearance. It is like a kind of "staging", the person has a number of scenic or dramatic means at his disposal.

Being responsible for one's own weblog implies that a person writes for himself, but is aware that he also publishes for a public audience. In most blog systems the blog owner widely controls the way the content is presented. Therefore a blog is very well suited for mediating a role that a person – conscientiously or not – wants to play while facing other users. The parallel to our social roles in real life is striking and illustrates the links between the ICT/media field and disciplines like anthropology and sociology.

All mediated expressions combine form and content, and the forms are normally created with tools accessed only by privileged users (advanced software, password protection, requirement of special skills, etc.). Blogs and other ways of Internet publishing make this distinction explicit by closing parts of the user interface to all users but the owner(s) and/or registered members. In relation to "staging" this is interesting, because there exist two clearly separated modes of communication: activities off stage (administration mode) and on stage (receiver and participation mode). To understand the implications of this Ervin Goffman's ideas on social interaction and "self representation" (Goffman 1959) is a good starting point. Goffman differs between "back region" and "front region", but he also uses the terms "backstage" and "frontstage" describing different levels of any social interaction. To Goffman frontstage is the region where a concrete representation is set, a given social context where an individual plays a specific role. Backstage are regions where the individual may drop out of a certain role, but where he may play other roles. The relationship between backstage and frontstage is always about one particular appearance and describes an interaction between people, not any physical or geographic location. A specific physical place may function as a frontstage in one social context, and as a backstage in another. In one moment the social situation requires one particular role (frontstage), in the next the situation alters, and the first role is dropped (backstage) and a new appearance is being prepared (Goffman 1959:97).

Goffman's ideas are relevant for personal home pages, which may be defined as a way of "conquering a field of text on oneself" through a form of publishing where the individual controls the content and presentation form of a message (Rasmussen 2003:1). The personal home page compensates – but is also in a dialog with – the forms of presentation of the popular culture in general and especially the mass media. Rasmussen emphasizes the difference between the "self" of the sender, and the "distant self" represented by the net media. The net based representation is self made, but also produced by social communities, societies and cultures, which illuminates how relevant Goffman's distinction is between the intentionally "given" impressions and the ones that are "submitted" through our unintended actions (Goffman 1959:12).

Weblog communication generates a complicated set of roles. A blog owner staging himself through deliberate use of text and links may encounter that his message is called in question through other users' comments. Remarks are thus incorporated in the mediated expression. Being open to such suggestions may be intimidating to some, but the art of utilizing this in a constructive way is a crucial part of media competence of all digital network media. A person staging himself through publishing must always take into consideration that the staging is related to and interacts with a community.

6. DESIGN AND SELF STAGING

Design development of interactive technologies for children and juveniles emphasizes the general importance of designing processes that are open, that is processes where the end product is not defined in advance (Casell 2001). If the technology narrows the process too much, people's creativity is restrained. This has negative effects on learning.

Personal publishing is based on relatively simple and flexible software, not a large number of predefined functions. This way the student gets a better feeling of controlling the information he publishes, because he is able to adjust his personal publishing arena without help from a professional.

An individual home page is often constructed with a number of intertextual functions that place the page and its creator in a social context. The blog genre contains several such functions that allow a user to link his blog to others. Trackbacks, pingbacks, blogrolls, commentary functions and links inside single postings are traits that make it possible to establish explicit connections materialized as hyper-links. Graphic design and publishing style (the layout of text, pictures, video) are also of great importance in the self staging process.

Designing a web page is relatively uncomplicated, but the process contains a large number of potential traps. Building a page from scratch often results in polishing unimportant details not related to the content. Most blog systems, on the other hand, offer user friendly customizing solutions. Beginners and users not interested in spending time on designing may use predefined templates that easily can be adjusted. Advanced users may create their own templates and subsequently learn about or experiment with design and functionality.

7. PRACTICAL TESTING IN SCHOOLS

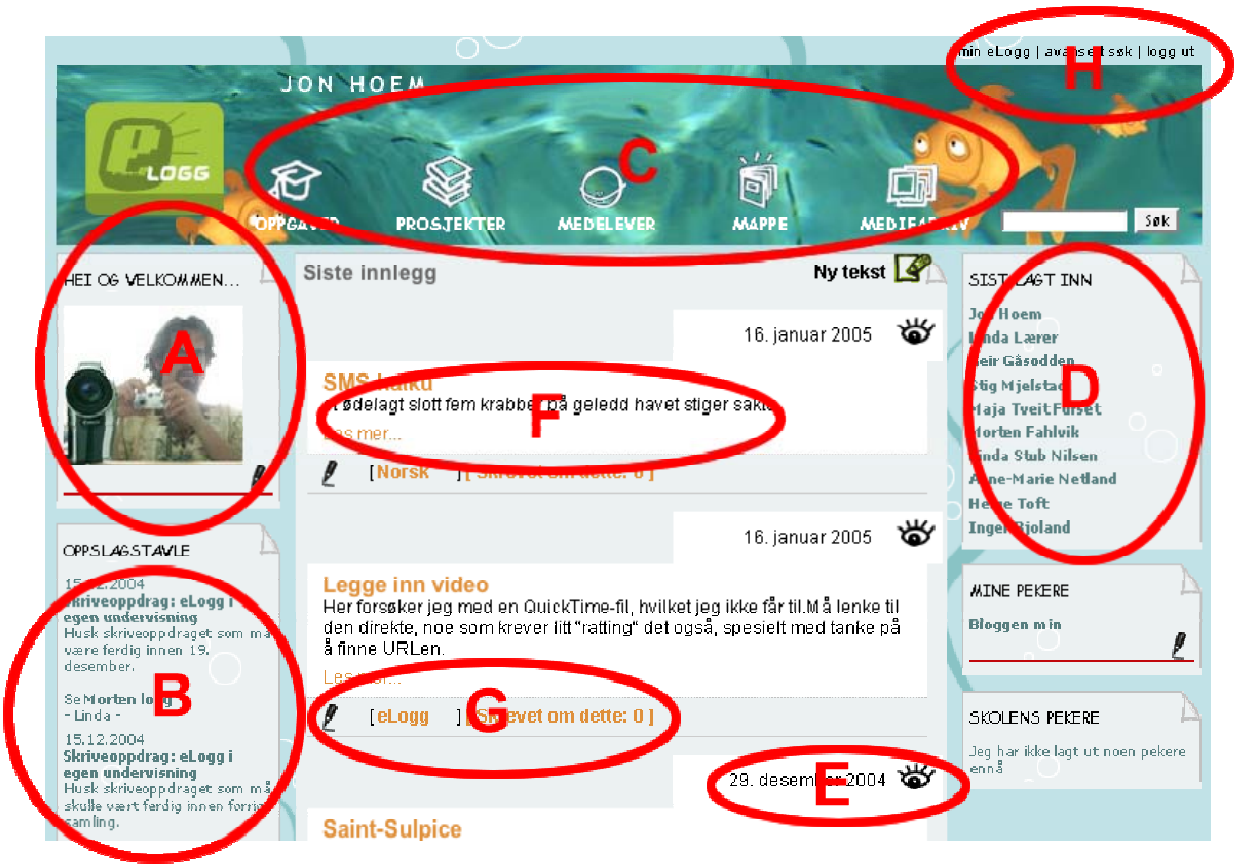
The project *Dramaturgy in distributed learning* wants to test personal publishing solutions in schools. An important part of the project is the development of *eLogg*, a learning platform for primary and secondary schools based on the principles of personal publishing. eLogg is being developed in cooperation with a reference group consisting of primary and secondary school teachers. It focuses on differentiating and personalizing options, in addition to functions that support cooperative knowledge management.

Blogs resemble personal genres like diaries and journals with personal experiences and observations reflecting individual interests. There are of course some substantial differences, but still the easiest way to explain blogging is often to describe the genre as “an online diary”. At the same time most blogs are published, freely accessible on the World Wide Web, making them as accessible as any online newspaper, introducing elements of mass-media. This makes all kinds of personal publishing exist on the border between private and public.

This duality makes blog-authoring become a mixture between writing for oneself and for others at the same time. A weblog is always both for oneself and for a group of readers. In most cases there are a rather limited number of people who read a specific blog regularly, making it possible to use the blog in order to mediate personal relationships between the author and his readers. On the other hand, as long as blogs are publicly accessible the potential audience is vast. From time to time this might lead to awkward situations where writings which may be intended for a limited group suddenly are read by a large audience. Writing in public may therefore be a complicated matter, but it may also have several positive effects on the blog-author´s “media competence”. He will have to take into consideration a number of intertextual attributes which characterize hypertext, the World Wide Web and “digital media” in general.

Nevertheless, when introducing the blog genre in primary schools we will have to introduce some limitations when it comes to who will be able to read what the pupils post. Pupils that are underage can not be allowed to publish on the open web as long as this is within a school context. eLogg is therefore designed in order to facilitate communication between the members of a given group (in most cases a class).

The main interface which meets each user contains the following elements:



A: A picture which the user uploads in order to represent himself. The picture is also a link to the blog-owner's personal profile.

B: A simple interface where the teachers can give short messages to the pupils, individually or to the whole group.

C: In order to design a dedicated learning environment we introduce special functions like "assignments", "projects", "friends & favourites", "selected works" and "media archive". Most of these are functions which come in addition to a conventional blogging environment.

- "Assignments" are posted by the teachers in their individual blogs and tagged with the groups which are supposed to answer. The pupils answer in their own blogs, but assignments and the respective answers are connected by "trackbacks".
- "Projects" are collections of blogposts where the pupils can invite each other in order to work on collective texts. Members of a project are able to import posts from their own blogs into the project or they may write new posts withing a specific project. Project-specific posts will be editable to all the members of the project while each member keep the control of editing their own imported posts.
- "Friends and favorites" is the interface where the pupils can choose who they want to include in their blogrolls in addition to the predefined group.
- "Selected works" are collections of blogposts which the pupils choose, for example for evaluation purposes. The functionality is like "projects", the only difference is that it is not possible to invite other contributors into a selection of one pupil´s work.
- "Media archive" is where pictures, video and sound have to be stored before they can be used in individual postsings.

D: A "blogroll" which is a list of names, sorted the latest postings from pupils within the group and others who the blog-owner has added to his list of "friends and favorites". Below the blogroll it is possible to include the users own links and links provided by the teacher.

E: Time and date for each post with an icon representing the status which the pupil have chosen for the given post. This can be “draft”, “for teacher” or “public”. All posts are visible to the pupil who controls the blog while other users only see the posts which their status allow.

F: A summary of the post without formatted text and pictures. The complete post is shown to users who follow the permanent link.

G: Shows the categories which the author has chosen and the number of “comments” and “trackbacks”.

H: Fast navigation functions.

The interface also include links to monthly archives and listings of all the postings to each category. The pupils are able to post to a number of predefined categories and additional categories which they make for themselves.

Every pupil get their own blogs which makes them able to post individually, make personal selections of their work or projects where other pupils may be invited in order to collaborate in groups. Each pupil can edit a personal profile where they are able to choose between different graphical designs and provide personal information. An early finding is that the pupils appreciate all the features which makes it possible to give the interface of the blog an individual look, strengthening our assumptions about the importance of “self-staging”.

The learning environment described above is designed for pupils at the age 12 to 15. Other interfaces will be designed for pupils in primary school. These interfaces will follow the same principles, but they will provide diverse functionality in some areas.

8. FURTHER RESEARCH

We are particularly interested in identifying qualitative aspects of student's text production, including ways the text producing may be connected to reformulating and the use of pointers and commentary functions. Further we want to study the relation between the pupil's academic publishing and their non academic and leisure time publishing.

We believe there are some interesting pedagogical and didactic possibilities in exploring the use of communication technologies which the pupils use when they are not in school. The overall penetration of computers and mobile phones is extensive in Norway where most kids have access to these technologies on a daily basis, when they are at home. In schools the access to computers is much more limited and the use of mobile phones is often prohibited. Possible interconnection between what we might call *school and leisure time publishing* becomes particularly interesting in relation to blogging, since this genre already holds a position between what is considered private and public.

eLogg provides some functionality which makes it easier to work with collective texts in groups (“projects”). We would like to build true wiki-functionality into the interface in order to give the pupils the tools for other, even more collaborative ways of writing, but so far the teachers have expressed their skepticism towards this kind of writing. This is probably caused by the fact that wiki-writing do not resemble any genre which the teachers already know, which makes it more difficult to anticipate the pedagogical possibilities. We therefore believe that we will be more successful when introducing collaborative writing through blogging, which is more like known genres.

Finally we are interested to know more about how “educational blogging” can coexist with other computer mediated communication technologies, like games, instant messaging, email etc.

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