

The Development of Socialization in an On-line Learning Environment

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Abstract

The paper investigates interactions on five online courses involving staff that currently lecture or support learners in further and higher education at the University of Glamorgan, and its partner colleges throughout Wales. The qualitative research involves an ethnographical study of the ethos of the online communities of students. The findings suggest that if Stage 1 of the model is effectively designed and facilitated then socialization occurs at this stage. The design of Stage 2 of the 'Model of teaching and learning online through online networking' is problematic. The paper calls for a review of the relationship between the strategic objectives and their relative tasks in these important early stages of development.

Introduction

As a result of the rapidly growing popularity and expansion of the Internet, learning and teaching is being transformed. This change is impacting on elements of traditional teaching in order to accommodate a time-and-place displaced setting where the personal computer transforms from an administration and learning tool into a social interface as it continues along its evolutionary journey through hardware, software and communications technologies. In the context of the online learning environment (OLE), there is a compelling argument that a reappraisal of the role of the tutor is required (Jones, 2004; Salmon, 2000) as the act and art of teaching and learning

themselves change to address the new profile of this OLE. In light of this apparent worldwide popularity and growing dependency on online teaching and learning, there is a growing need for effective training of the tutors who intend to deliver the online courses.

Aim

The aim of this paper is to analyze socialization on e-moderator courses, which have been designed to train on-line tutors. This paper investigates interactions on five online courses involving staff that currently lecture or support learners in further and higher education at the University of Glamorgan, and its partner colleges throughout Wales.

This research study was essentially an evaluation-based project that helped inform the instructional design of the course as part of an ongoing evolutionary strategy of course improvement. It was hoped that the findings would lead to design modifications that may, in turn, help maximize the quality of learning and enhance the online experience for future online students.

Context

A large section of Wales has been designated as an Objective One area by the European Union and thus eligible for extra funding to stimulate economic growth. Thus in 2000 the University of Glamorgan and partner further education colleges in Wales received funding from the European Union's Social Fund to develop entrepreneurial programmes online across the Objective One areas of Wales. Thus we formed E-College Wales and this venture offered us the opportunity to undertake a major initiative in e-learning and has resulted in over 1000 students undertaking courses online. Through e-learning the University of Glamorgan has the opportunity to develop staff in a non threatening way by renewing interest in learning and teaching.

What was clear at the start of the E-College project was the need to provide staff development in Computer Mediated Conference (CMC) pedagogy but in 2000, at the start of our journey into e-learning, there were very few examples of staff development programs supporting e-learning initiatives. Gilly Salmon at the Open University in the UK had just developed a model for teaching and learning on-line and we enlisted her help in developing our staff. Salmon devised a staff development program for us based on her five-stage model in order to help inform, what at that time, was a group of 'naïve' and inexperienced e-moderators. BlackBoard was the chosen virtual learning environment (VLE) which provided the platform for communication. The course was designed to place great emphasis on promoting dialogue through asynchronous discussions and the consequent development of learning communities. As Stephenson and Coomey (2001) highlight, these are important factors contributing to the success of online courses. Salmon's framework has five distinct sequential stages of development comprising a series of pre-ordained tasks, referred to by Salmon (2000) as e-tivities. The five stages are illustrated in Figure 1 on page 4 below.

Whilst the content of the e-moderators' course is pre-ordained, the responses to the tasks often develop into other areas, allowing a more constructivist approach as advocated by Laurillard (2002). The learning theory underpinning the course is not aligned to the behaviorists' traditions but rather to the theories of Vygotsky (1994), Schön (1987) and Wenger (1998). Social factors as well as intellectual factors are important in e-learning and the concept of participation in a learning community is central to this course. Over the last two years 220 members of staff from the University of Glamorgan and the associated further education colleges have undertaken the course. During this time we have continued to modify the course as our learning about e-learning increases (Fitzgibbon & Jones, 2004).

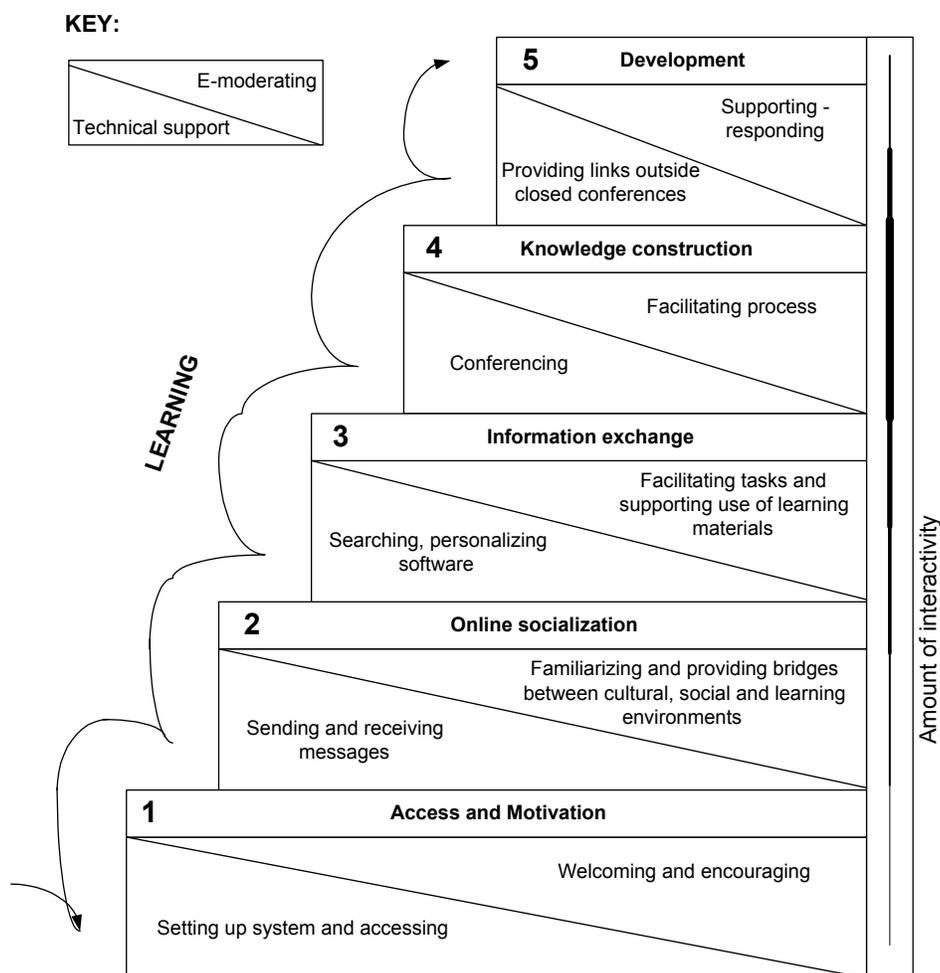


Figure 1. Model of teaching and learning online through online networking.

From “E-moderating – A Key to Teaching and Learning Online,” by G. Salmon, 2000. London: Kogan Page.

The situation at present in many UK universities is that most lecturers focus on content, are experienced in face-to-face teaching, have little pedagogical training and experience of facilitating learners on-line. Conrad (2004) reveals a similar pattern in teachers at a Canadian university, “instructors had very little knowledge of the new medium...and relied heavily on their face-to-face experiences... they revealed very little awareness of issues of collaborative learning” (p. 31). Thus if we accept that on-line conferences are appropriate for collaborative learning we need to provide pedagogical guidance on how to integrate on-line tools for

collaboration into our teaching. Bonk (2003) warns, “Unfortunately, while the constructivist revolutionaries have ventured onto the battlefield of epistemological change, most have not provided practicing educators with the wherewithal to reconstitute and embed constructivist ideas within their personal philosophies and teaching practices” (p.9). Alexander and Boud (2001) claim that for effective learning the skills of the moderator are more important than the features of the software tools being used, our experience to date supports this view.

Data Source and Context

The E-moderating online course, is a 10 credit Masters' level module. This paper focuses on five instances of the course. The first of these five courses was scheduled for duration of six weeks where each stage (of five) was spaced equally a week apart, beginning in September 2002. The following courses were extended to 10 weeks to address students' time management concerns with start dates in February, May and June of 2003, and January, 2004. The training programs were delivered entirely online using the BlackBoard virtual learning environment (VLE) and were structured around Salmon's 5-stage e-moderating framework (refer to Figure 1). The students were obliged to address the e-tivity tasks that were to be completed entirely online. The design and development of these e-tivities were carefully aligned with the recommended criteria and examples provided by Salmon (2002). The courses involved a total of 90 members of staff from the university and partner colleges; they all had full autonomy in their decision whether or not to enroll. The gender split and numbers on the e-moderator course are as follows:

| Course Start Date | Group | Males | Females | Student Numbers |
|--------------------------|--------------|--------------|----------------|------------------------|
| September 2002 | Group1 | 59% | 41% | 27 |
| February 2003 | Group 2 | 59% | 41% | 22 |
| May 2003 | Group3 | 50% | 50% | 15 |
| June 2003 | Group 4 | 56% | 44% | 16 |
| January 2004 | Group 5 | 40% | 60% | 10 |

Few students knew one-another beforehand in either of the courses despite some of the students working in the same organization, but six students of the May, 2003 course worked closely together within the same department at the University of Glamorgan.

In all five courses, students were invited to meet in a face-to-face setting for a one-day induction workshop. This full day meeting included icebreaking activities and a practical session where the students were introduced to the BlackBoard VLE. It was during this session that the students began posting their first messages as part of the first stage of the 5-Stage model. It was hoped that this would highlight any problems either with the technology or with the students who might experience difficulties with the BlackBoard program, or indeed, the hardware itself. In addition, it was believed by the course management team that this initial face-to-face meeting might serve to enhance the socialization process. Salmon (2000) recommends that induction to the course should be conducted entirely online. In contrast Mason (2002) continues to advocate face-to-face contact in outlining this as one of the 'most important' features of successful online courses.

Whether an initial face-to-face meeting is held or not, it is reasonable to assume that at some point during this second stage of the five sequential stages, *some* degree of socialization should occur as this is fundamental to Salmon's (2000) model. Salmon (2000), however, does not offer clear terms of measurement as to what amounts to an 'appropriate' level of socialization other than commenting that "this stage is over when the participants share a little of themselves online" (p. 29). If Stage 2 is to be considered as the online equivalent to the 'ice-breaker' in the traditional face-to-face environment (Feldstein, 2002) one might expect an increase in informal messages to be posted by the online students that are not specific responses to the obligatory e-tivities. Salmon refers to Preece (1999) in insisting that early online interaction provides the

platform for subsequent development of knowledge-related discussion. Indeed, the sequential nature of Salmon's five-stage model implies that the framework is in itself influenced by this concept and provides the important pre-requisite for the constructivist approach that is clearly distinguishable in the program.

According to the Salmon (2000) model, the objectives of Stage 1 are to establish access and to induce and sustain the motivation of the new student. Many students claimed that posting their first messages to the discussion board was anxiety laden. In the e-moderating courses, these students had already interacted through ice-breaking activities during the initial face-to-face induction. Had this not been the case, anxiety may have been amplified. This begs the following questions: should icebreaking activities precede the first posting of a message as an attempt to reduce initial anxiety? Is Salmon guilty of placing the cart before the horse?

Our students unanimously agreed that the initial face-to-face induction session was instrumental in establishing a 'first level' of social contact and that the face-to-face element was an important feature in terms of reducing personal anxieties. It facilitated an initial level of socialization between group members and allowed them to 'put faces to names'. Furthermore, it helped to develop initial rapport between the tutor (e-convenor) and the students as well as providing an immediate platform for questioning during this technically intensive 'access' stage. This is typified by the comment from one of the students:

'The group got to know each other a bit better and we all enjoyed getting acquainted with the module and each other...' ID, June 2003.

In the UK, Salmon's (2000) model has been adopted by many universities and businesses but we believe that there are dangers in accepting a 'one size fits all' model. Lisewski and Joyce (2003) who highlight the dangers of reification of Salmon's five-stage model support this view.

Indeed, the objectives involve the students constructing their own meaning of e-moderating partially anchored in reality having conducted role-play both as a student as well as an e-moderator on the course. Such a conceptual framework relates mainly to the socio-constructivism theories of Vygotsky (1978) and reflective practice theories of Schön (1983). It is believed that students' participation in a learning community is a central feature of this course. However, one might argue that the concept of a successful learning community requires the existence of a number of essential components based on the virtual micro-culture that emerges from the variables of the particular group, the course tutor and course structure. Many claim that educational value relates to a learning community (Rovai, 2002; Vonderwell, 2003; Wenger, 1998; Wegerif, 1998) and that community relates to retention rates (Arle & Edge, 2002; Palloff & Pratt, 2003; Singh, 2004; Tinto, 1993). While there are a myriad of differing definitions of community and learning community, Salmon (2002) cites Wenger (1998) in viewing a community of practice as including components such as joint enterprise, mutuality and shared repertoire where mutuality relates to the participants gradually getting to know and trust one-another. Salmon clearly attempts to build a vibrant online community via the vehicle of socialization during Stage 2 of the model.

Mason (2002) and Nichols (2003) claim that e-learning has not yet produced a new theory of learning, although Mayes (2001) believes that the focus should be on establishing effective ways to utilize existing pedagogy rather than seeking a new theory of learning. Consequently existing theoretical models are currently being adopted based mainly on interactive, constructivist theories in the academic environment. There may be difficulty in acknowledging that such models are ideal for this relatively new electronic environment. For example, the constructivist theories of Vygotsky (1978), Piaget (1950) were developed as an

approach to the learning process that included sensory inputs such as vision, hearing, touch and taste. These inputs are not available in their natural form in the much-reduced bandwidth of the virtual environment. Clearly, optimization is unlikely and the ideal impossible. In the light of this, it could be argued that there is a need for a new underpinning learning theory and an associated effective teaching/learning model that maximizes the advantages that the virtual environment has to offer whilst suppressing its many shortfalls. Further research is needed in this important area. As Laurillard (2000) warns, “technology is rarely designed for teaching” (p. 133).

The e-moderating courses adopted a constructivist approach and social dialogue is an essential feature of the pedagogy. Salmon’s (2000) model suggests that Stage 2 lays the foundations for social dialogue however, an analysis of students’ evaluation meetings and questionnaires, along with some online comments suggested a possible lack of student inspiration at Stage 2. Many claimed that they felt somewhat frustrated in that they simply wished to get on with the process of training to be an e-moderator, which is featured in later stages of Salmon’s model

‘I think there was too much basic stuff at the beginning, perhaps that could be limited a little and more time allowed for the more in-depth e-tivities towards the end?’ - SH

‘Maybe sessions 1 and 2 could have been condensed thereby allowing more time for Session 3 and particularly Session 4’. – RP

'I think if this module were continued it should be modified so that there is less time spent on the first two stages and more time spent on the skills of the e-moderator and the all important knowledge construction' – DM

'The best part of the course had to be Session 4 because it gave a real insight into what e-learning is about'. - CC

It is acknowledged that these trainees need to attain the experience of being an online student, which amounted to one of the objectives of the early stages but one might offer the argument that simply studying this online course will provide this experience anyway.

Methods of Data Analysis

The qualitative research involved an ethnographical study of the online community of students participating in the five 'e-moderating' courses. This involved an analysis of messages electronically posted to the online discussion forum. We believe these messages implicitly embody information that may relate to the complex processes involved in the creation of a community through means of socialization in this online environment. The researchers sought evidence to show whether or not socialization occurred. It was assumed that if no distinct evidence were to emerge then the nucleus of Salmon's framework might require modifications in the second stage.

All the messages posted to the online discussion forum by the students during the courses were analyzed in order to draw possible conclusions as to the levels, scope and characteristics of the interactions that took place amongst the participants. The researchers were particularly interested in identifying the levels of interaction *outside* of the set tasks (e-tivities) where it was

hoped that an effective analysis would identify components of an online learning community.

The contributions of this research were transparent to all concerned during these courses.

The procedure adopted in collating the data was relatively straightforward. Each message posted onto the discussion board within the VLE was read and the font color changed according to a particular category:

- Postings directed to the e-moderator
- Postings relative to the e-tivity task
- Postings as part of a discussion but not part of an e-tivity task
- Postings of a purely social nature.

The messages were counted and categorized according to the font color in preparation for statistical analysis.

Limitations

Many authors (Palloff & Pratt, 2003; Rovai, 2002) suggest a link between interactivity and the process of community-building. We support this view but recognize this may bias our analysis. In addition the group of online students comprised members of staff involved in lecturing and learning support within Further Education and Higher Education. This was an articulate and well qualified group which may not be representative of all online learners.

Summary of findings

The data collated from each group were analyzed and are graphically presented on the following pages. All of the stages of the first group were recorded and analyzed, and the first three stages of the subsequent groups were also analyzed.

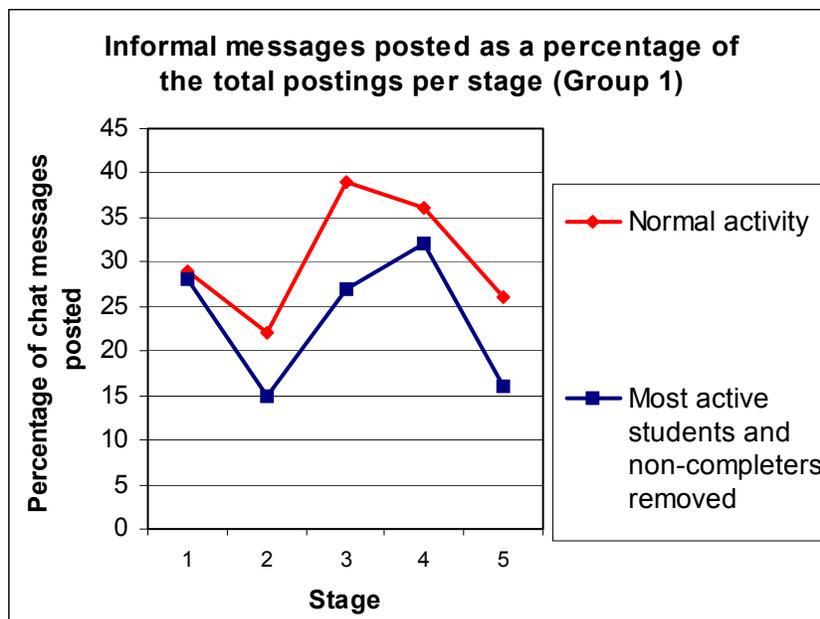


Figure 2. Graph of the informal messages of Group 1 posted as a percentage of the total postings per stage including graphical profile with the most active participants omitted (lower profile).

As seen in Figure 2, there is a distinct trough at Stage 2 in terms of the number of informal messages posted amongst the online group to the discussion forum as a percentage of the total number of messages posted at that stage. In order to identify underlying trends that may be skewed by the few most highly active individuals and non-completers, an analysis was undertaken with the three most active individuals and non-completers omitted from the results. Once again, the interactivity during Stage 2 decreased. The inclusion of the most active participants and the non-completers appear to have little overall effect on the level of informal messages posted by the online students to the discussion forum.

The graphical representation of the first three stages of all five groups is as follows:

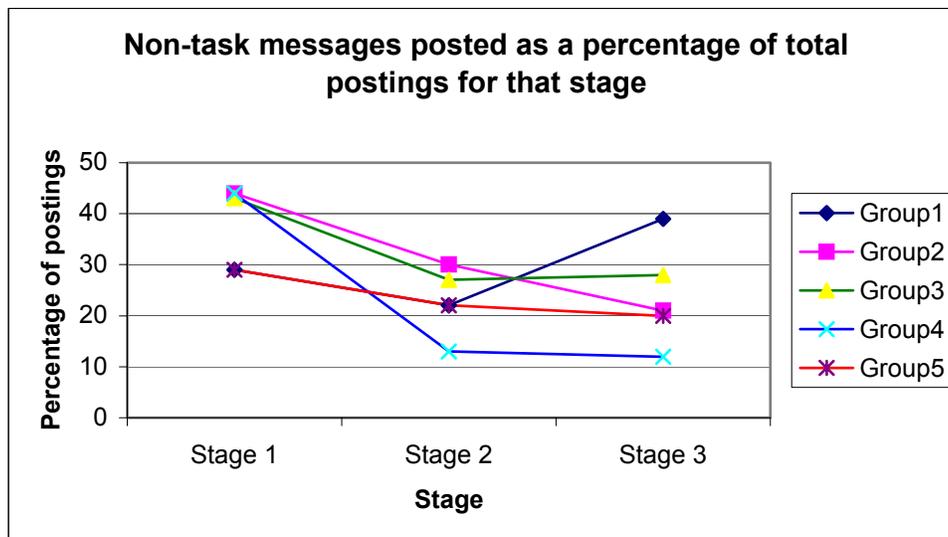


Figure 3. Graph of the informal messages posted as a percentage of the total postings per stage (all groups). In 2003, assessment was introduced from Stage 3 onwards. This is believed to reduce the number of informal postings

The characteristics of the graph of Figure 3 are clearly similar to the previous graph in terms of the first three stages of the program in that the informal interactivity among the students at Stage 2 has decreased markedly.

Finally, in order to remove any possible distortions caused by the translation into percentages, the accumulated number of informal messages posted to the discussion board during the first three stages of all five courses were recorded and graphically represented (refer to Figure 4).

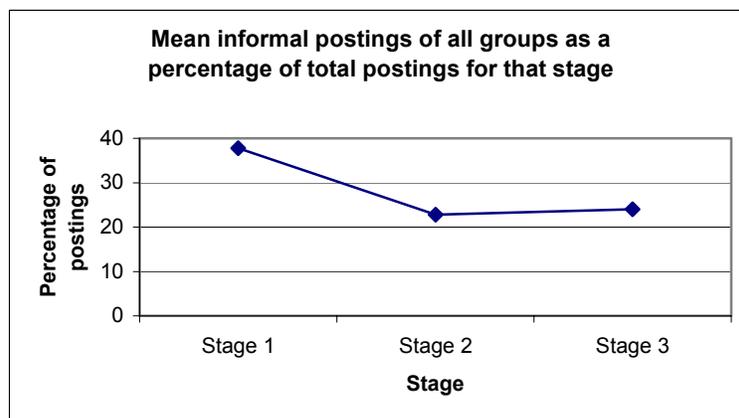


Figure 4. Mean of non-task postings (all 5 groups)

As may be seen in Figure 4, the familiar pattern again emerges.

Limitations

Limitations of the investigation include the following:

- *The nature of the study* - many authors (Palloff & Pratt, 2003; Rovai, 2002) suggest a link between interactivity and the process of community-building. We support this view but recognize this may bias our analysis.
- *The context of the students* - the group of online students comprised members of staff involved in lecturing and learning support within Further Education and Higher Education. This was an articulate and well-qualified group which may not be representative of all online learners.

Conclusion

The analysis of the data reveals that the informal interactivity at Stage 1 was at a relatively high level and significantly dropped at Stage 2 on each occasion. The informal interactivity at Stage 3 slightly increased generally as would be expected of Salmon's framework. However, the observed fall in interactivity at Stage 2 is curious and may relate to

either the positive effectiveness of the Stage 1 e-tivities in terms of creating socialization or the ineffectiveness of the Stage 2 e-tivities. Either way, the profile of the graph is distinct.

It would appear from the analysis that evidence of the formation of an effective online community was not prominent during Stage 2 of the course program. Apart from a few active participants, there was scant evidence of motivation of the online students to extend their efforts beyond that of the e-tivity tasks that were obligatory to the program during this stage. It seems therefore that the intended element of socialization that underpins an effective online community did *not* materialize effectively at Stage 2 and that the constituents of socialization were actually more potent during Stage 1. Indeed, the comments of some of the students suggest that Stage 2 might even have served to impede the process.

Having considered the close alignment of the design of the e-tivities to Salmon's model at Stage 2, and considering also the apparent popularity of Salmon's model, it is believed that the unexpected profile of the graphs relate to effective design of Stage 1 by the course management team coupled with the positive effects of the face-to-face induction that is likely to have captured the initial enthusiasm of the students. Face-to-face contact played a significant part in the socialization process and subsequently in the creation of a community of learners.

Effective socialization can emerge during Stage 1 if appropriate care is applied to the design and construction of the e-tivities and the initial face-to-face induction. When initial success is achieved, the students may then feel ready to engage in the challenging e-tivity tasks that are generally found beyond Stage 2. With success achieved at Stage 1 in terms of socialization, Salmon's recommendations for the design of the e-tivities for Stage 2 may need to be reviewed with more focus applied to the maintenance of initial student motivation. Indeed, effective e-tivity design and implementation at Stage 1 might mean that Stage 2 can be

completely omitted from the five-stage model altogether. There is a danger that Salmon's 5-stage model extends the initial stages unnecessarily at the expense of devoting more time to exchanging information and building critical communities of practice.

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