Exploring the working knowledge of teachers in a multi sectoral institution

Keywords: working knowledge, VE teachers, academic work

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Abstract
This paper reports the outcomes of a study that investigated the working knowledge of academics in a ‘new generation’ university in Australia. It investigates the implications of the findings of the study for professional development processes and practices in a multi sectoral university.

The study explored how academic staff ranging in academics level and experience make sense of the knowledge they need in their everyday work. A series of phenomenographic analyses highlighted three distinctive but overlapping aspects of this knowledge. The first aspect was teaching which was talked about at length by all interviewees. The second aspect was research was mentioned by all interviewees but the discussion was not to the depth of those relating to teaching. The third area, not previously the focus of phenomenographic analysis dealt with institutional administration. It was this area that a significant proportion of academics devoted most time to discussing. The analysis revealed four themes that seemed to constitute the working knowledge of academics in this study. These themes were explored and were found to elucidate five different categories of working knowledge and ways of working as an academic. Five ways of being an academic were identified. The following verbs describe these ways of experiencing work: Imitating (pseudo) Adopting (professional competence); Adapting, (ideas); Adapting (problem); Defending, (academic practice); Rethinking, (renewing academic practice).

This paper explores the possibility of a parallel study at the same institution which will investigate the working knowledge of VE teachers and elucidate possible ways of ‘being’ a VE teacher. It draws on what is known about the working knowledge of VE teachers and draws on the work of Chappell et al (2000) who suggest that the working knowledge of VE teachers has three distinctive aspects: teaching, institutional administration and entrepreneurialism. It suggests that in a multi sector institution, the working knowledge of VE teachers needs to be considered alongside what is known about the working knowledge of academics so that professional development processes and practices are sensitive to the demands of work of both academics and VE practitioners.

Introduction
Although there are a significant number of multi sector institutions comprising VE/FE and HE components in Australia, there is little discussion about the educational development practice in these settings.

This paper draws on the findings of a study into how academics make sense of the knowledge they use in their everyday work. The data was collected at a multi sector university in Melbourne Victoria as part of a PhD study between September 2003 and February 2004. It is argued from the findings of the study that educational development practice should be based on a holistic view of work in a multi sector institution. In addition, these practices should include consideration of the organisational context in which work takes place. It is further argued that professional development practice in multi sector organisations is best built on understandings about the knowledges that inform the daily practice of VE and FE teachers and HE academics.
In this paper, knowledge that informs the everyday practice of VE and FE teachers and HE academics is referred to as ‘working knowledge’. The term ‘working knowledge’ is used here to encompass two dimensions: knowledge that works and which ‘one can rely on when called upon for various goals’, and knowledge for that set of activities that we call work which can be used ‘to meet the demands of tasks that we encounter at work’. (Stevenson 2000). It is assumed that knowledge that is used for work is also knowledge that works for other purposes – that is it is connected to all aspects of an individual’s life and is central to who they are (Ibid: 517).

The paper explores the issue of professional development practice in a multi sector institution from this perspective.

The study
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A series of phenomenographic analyses highlighted three distinctive but overlapping aspects of this knowledge. The first aspect was teaching which was talked about at length by all interviewees. The second aspect was research which was mentioned by all interviewees but the discussion was not to the depth of those relating to teaching. The third area, not previously the focus of phenomenographic analysis dealt with institutional administration. It was this area that a significant proportion of academics devoted most time to discussing.

An important aspect of this study was that typically interviewees were consistent in their understanding of what constituted knowledge and knowing across the categories of teaching, research and institutional administration. In further explorations of this, four themes emerged that seemed to constitute the working knowledge of academics in this study. These themes were explored and were found to elucidate five different categories of working knowledge and ways of working as an academic. These in turn were seen as reflecting different understandings of academic work and representations of academic identities.

Working knowledge and academic identity formation and maintenance
The key finding from the study was that the phenomenon of working knowledge is related to other phenomena: the phenomenon of knowledge – how it is understood and experienced - the phenomenon of being an academic and academic identity itself. The five categories of working knowledge and the related identity descriptions to emerge from the phenomenographic analysis are described briefly below.

- **Imitating, pseudo**
  The first category of working knowledge supports what is described as an imitating, pseudo academic identity. Academic work is understood as a series of disjointed tasks associated with teaching and administration and to a lesser extent research. The focus is on knowledge as information that can support the completion of tasks that arise in everyday practice. This is an instrumentalist approach to knowledge that sees working knowledge focused on the performance of tasks. Being an academic entails looking like an academic by performing tasks associated with academic work that academics are perceived to do.

- **Adopting, professional competence**
  The second identity is underpinned by working knowledge that is focused on structured information. The adopting, professional competence identity views academic work as being ‘professional’. This entails following prescribed procedures within defined structures that support teaching and research. The focus of everyday work is on performing prescribed
tasks systematically. Understandings about knowledge as information that is structured and ordered are at the core of working knowledge supporting this identity. Unlike the case above, being an academic is understood as working within defined structures and procedures and performing tasks within these.

- **Adapting, ideas**
The third category of working knowledge supports an academic identity that is focused on knowledge as represented by ideas. The *adapting, ideas* academic identity views academic work as adapting ideas collected from various sources to resource activities. The focus of everyday work is on adapting ideas to the immediate context so that tasks can be performed in interesting ways. Being an academic is understood as being able to adapt behaviours and activities according to ideas that inform practice. This differs from the view of academic work above as the application of ideas may require working outside prescribed structures and processes.

- **Adapting, problem**
The fourth category of working knowledge supports an academic identity that is also focused on adapting academic work to issues to be addressed in the immediate context. The *adapting, problem* academic identity however, is focused on issues in everyday work that require solutions. Knowledge is understood as a series of problems that have solutions. The focus of everyday work is on problem-solving in the immediate context. Being an academic is understood as being adaptive – to be able to adapt behaviours and approaches to meet the immediate demands of the working environment.

- **Defending, academic practice**
The fifth category of working knowledge supports an academic identity that is focused on knowledge as represented by theories and concepts. The *defending, academic practice* identity views academic work as theory driven and conceptual in nature. Everyday work is based on principles that in turn reflect theories and conceptual frameworks that guide academic practice. Being an academic is about using commonly understood principles to inform how teaching and research and all aspects of work are undertaken and to defend their application in everyday work. Unlike the academics in the category above, adaptation without reference to these principles is not possible.

- **Rethinking, renewing academic practice**
The final category of working knowledge supports what is described as a *rethinking, renewing academic practice* identity. The working knowledge of academics in this category is focused on multiple theories and concepts that frame everyday practice. Knowledge is viewed as the result of different theoretical and conceptual constructs which can be used to re think existing ways of thinking. Being an academic entails using theories and concepts to challenge thinking about the world. In everyday work as an academic, theories and concepts are used to rethink the structure and scope of academic work itself. Unlike the category above, principles can be re worked and changed as a result of new theories and concepts.

The findings revealed that working knowledge is related to the phenomenon of how knowledge is understood, and that this is related to the phenomenon of being an academic and identity formation and maintenance. Categories of working knowledge include identity descriptions that show the different ways that key aspects of working knowledge (teaching research and institutional administration) are brought together in everyday practice. The figure below shows phenomena related to working knowledge.
Institutional administration and working knowledge
A significant finding from the study was the importance of knowledge about institutional administration as an aspect of the working knowledge. The findings above drew on a separate analysis of understandings of institutional administration amongst academics in the study. The findings of this prior study found variation in understandings of what institutional administration meant and on the basis of this, how it was enacted in everyday practice. Understandings about the institutional environment were found to vary across the categories of working knowledge described above. The variations and their relationship to the categories of working knowledge are summarised below.

Table 1: Variation in understandings about institutional administration

<table>
<thead>
<tr>
<th>Focus</th>
<th>How</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Imitating, pseudo</strong></td>
<td>useful contacts in the administration to complete ad hoc tasks</td>
</tr>
<tr>
<td><strong>Adopting, professional competence</strong></td>
<td>procedures and other guidelines to complete tasks within a structured system</td>
</tr>
<tr>
<td><strong>Adapting, ideas</strong></td>
<td>local and wider power structures to gain access to resources</td>
</tr>
<tr>
<td><strong>Adapting, problem</strong></td>
<td>As above As above</td>
</tr>
<tr>
<td><strong>Defending, academic practice</strong></td>
<td>decision making opportunities within institutional structures to contribute via formal committees to specific issues and policy concerns.</td>
</tr>
<tr>
<td><strong>Rethinking, renewing academic practice</strong></td>
<td>external policies and trends that determine institutional directions and responses to contribute to university wide policies, processes, practices and development.</td>
</tr>
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</table>

The variation in foci across the categories of working knowledge shows that the institution per se would be understood in different ways in the everyday work of academics. At one end of the spectrum, institutional administration is understood in terms of contacts as a way of getting specific tasks done - while at the other end, it is understood as in terms of processes and
policies so that institutional processes are enacted. The working knowledge of academics in the last two categories includes a view of the institution as a complex whole comprising multiple systems and processes. Being an academic with this understanding entails making contributions to institutional decision making processes and structures relating to all aspects of work. At the other end of the spectrum, being an academic entails getting tasks done without understanding or engaging with institutional structure or systems.

It is clear from the findings of the study that the working knowledge of academics includes knowledge of institution so that teaching and research can be realised in different ways in everyday practice. These understandings reflect what academics think the role requires of them—what it is thought academics do. These understandings are in turn linked to understandings about what it is to be an academic. It is clear from the study that understandings about institutional administration and its role in academic work are integral to the everyday work of academics and in turn ‘being’ an academic and expressing an academic identity.

This key finding concurs with current theories that view identity as constructed within discourses and are ‘produced in specific historical and institutional sites within specific discursive formations and practices.’ (Hall in Hall and DuGay (eds) 1996: 4). In this view of understanding identity formation, identities are not stable but subject to change and influence from these pressures. Identity is forged from what is ‘known’ and acted on. Professional identities are therefore shaped by the environment in which individuals work. These theories don’t preclude the view that there are different ways that discourses are understood and perceived — in short, that there is variation in identities within similar discursive environments. We also know that work identities are also connected to and indistinguishable from wider identities. ‘Being’ an academic is also the same as being an individual (1).

**Working knowledge and VE/FE identities**

Chappell et al (Chappell C, SN, Tennant M, Yates L 2002) identify significant differences in the ways that TAFE teachers construct identities as educators by comparison to university academics. TAFE identities they argue are constructed around ‘specialised knowledge and expertise gained through experience in particular industries and occupations.’ (Ibid: 142). This knowledge achieves credibility with students who value recent experience in industry. An emphasis on industrial experience is the source of a unique educational identity which is not focused on disciplinary knowledge as it is for academics and school teachers. Rather, the focus is on the application of knowledge at work instead of knowledge production per se. Performativity is privileged over theoretical/conceptual knowledge within this framework. The body of knowledge that is the focus of TAFE teacher’s work is related to business and industry; on knowledge of how work is performed in specific industries (Chappell, C, Farrell, L. Scheeres, H., Solomon, N. 2000).

Knowledge of industry is not enough however. Chappell et al observe that TAFE teachers are also required to understand educational discourses (Chappell C, FL, Scheeres H & Solomon N 2000). The two bodies of knowledge are contradictory: knowledge of how work is performed is knowledge that is socially distributed and acquired through practice, while knowledge that is required to teach in formal education settings codifies knowledge in terms of subjects and hierarchies. These different knowledge bases create tensions that manifest in TAFE professional identities:

‘On one hand their status is derived from their claim to expertise in the working knowledge of an occupation. Yet their status as professional educator is derived from their ability to implement educational practices that in some senses work against the kind of knowledge expertise they bring...’ (Ibid: 76 ).
The working knowledge supporting the professional identities of TAFE teachers therefore comprises two distinct and potentially contradictory aspects: knowledge about how work is performed in industry and specific occupations and knowledge about how to translate this into subjects and hierarchies. This combination of knowledges it is argued, differentiates TAFE teachers from other educators in secondary and higher education settings whose work is underpinned by disciplinary knowledge which is characterised by its codification and hierarchical organisation (Chappell, C 1999).

We can see from Chappell’s analysis that professional identities in multi sector institutions are founded on different knowledges. Chappell argues that disciplinary knowledge performs the same discursive work for academics (in identity formation) that knowledge of industry and business serves for TAFE teachers (Ibid: 7). Within this framework, academic work can be interpreted as primarily focused on discipline knowledge, while the work of TAFE teachers is primarily focused on socially distributed, work based knowledge. Although reductionist, this framework points to the ways of understanding different work practices and professional identities within multi sector institutions. It also confirms the broad findings of the study described above: academic identities focus on discipline knowledge.

**Figure 2: Professional Identities and working knowledge in a multi sector institution**

**Institutional cultures and VE/FE identities**

The study reported above identifies knowledge of institutional administration – reflected in knowledge of the institution itself – as an important aspect of working knowledge for academics. TAFE identities are however, influenced by the location in which their work takes place. Educational institutions in which they work have different ways of using and understanding knowledge and these shape behaviours and practices.

The vet sector identity is popularly constructed as an alignment of the institutional (‘the vet sector is what vet institutions do.’) and programmatic (‘a characteristic set of courses or programs.’) identities (Moodie 2002). A consequence of this alignment is a reinforcement of the sectoral divide between higher education and vet, with vet supporters resisting ‘harmonisation of organisational arrangements between the sectors despite obvious advantages.’ (Ibid: 2). Different industrial arrangements reinforce how vet teachers and higher education academics see themselves: ‘Teaching staff in the two sectors think of themselves very differently and construct their industrial in interests differently’. (Ibid).

There are obvious implications for professional development in multi sector institutions. Vet identities in multi sector institutions reflect the sector's identity which is constructed around institutional and programmatic characteristics. Industrial arrangements reinforce behaviours and practices in everyday work. The differences in a multi sector environment are intensified because of proximity.
Implications for professional development process and practice in a multi sector institution

What are the implications of understandings about what underpins identity formation and maintenance for VE/FE teachers and HE academics for professional development processes and practices in a multi sector institution?

A focus on ontology

There is increasing advocacy for ontological approaches in the development of programs for higher education academics (Dall’Alba 2005). Approaches based on ontology—a theory of being—encourage academics to consider who they are as well as what they know (Ibid). These differ from existing approaches which have a predominant focus on epistemology in the form of knowledge and skills (for example, Heidegger 1998, Barnett 2004). Approaches that attend to the ‘who’ as well as the ‘what’ it is argued, have a greater impact on changing practice. A focus on epistemology is not enough to achieve changing practice:

‘Knowledge and skills acquisition does not ensure skilful practice. This is not to deny the importance of knowledge and skills but, rather, to argue their acquisition is insufficient for enacting skilful practice and for transformation of the self that achieving such practice inevitably involves. By focusing on epistemology, we fail to facilitate and support this transformation’ (Ibid).

Approaches that focus on the ‘who’ differ from those with a focus on the ‘what’ of practice because of the way that knowledge is understood. Whereas epistemological approaches view knowledge as stable, absolute and foundational (and are therefore understood as skills and knowledge) ontological approaches view knowledge as unstable contextualised and transformed across and between different contexts (Billett 2001; Schön 1991). Knowledge in the latter view is contestable, pluralistic and understood as created through action – or enacted and embodied by the knower (Heidegger 1998). Programs and processes that view knowledge as contextual attend to the notion of being and the self and therefore also address issues of identity and their link to changing practice (for example; Barnett 2000; Nixon 1996). For example Dall’Alba (Ibid) reports a program for university teaching based on ontological approaches. This program is explicitly concerned with the transformation of the self - of different ways of being a university teacher. Participants focus on different teaching contexts and ways of being a teacher in them (Ibid). The focus on being – on the lived experience of university teaching in everyday practice – reflects application of ontological theory into professional development practice in line with research into to how academics experience aspects of their work (Akerlind 2004).

Ontological approaches focus on the transformation of the self and ‘being’ and are intimately connected with issues of identity. They draw attention to the importance of context in the generation of knowledge which is enacted and embodied. The discursive work that the immediate environment has on identity formation and maintenance is considered and acted on. In a multi sector institution, the impact of multi sector discourses on the work of VE/FE teachers and HE academics and subsequently, issues of identity associated with these, would be foundational to professional development processes and practices based that seek to change practices. The connection between context and identity formation and maintenance is a critical dimension of professional development processes and practices in a multi sector environment.

Changing practice is a critical outcome of ontological approaches to professional development. Changing practice is more likely with the deployment of ontological approaches because they work at the level of identity: the ways that knowledge is created and embodied through action. Understandings about work and how it experienced by VE/FE teachers and HE academics in a multi sector institution is critical to the development of programs that seek to change practice.
Work into the changing roles, work practices and identities of VE/FE teachers (Harris et al 2007, Mulcahy & James 1999, Simons 2001) and higher education academics (Henkel 2005; McWilliam 2004) offers a starting point for interpreting the institutional context of work. These understandings about the institutional context of work are foundational to rethinking identities in a multi sector institution and work practices that inform them.

**Putting informal learning at the centre of learning in work**

Approaches based on ontology point towards considering the everyday practice of HE academics and VE/FE teachers and how learning occurs through work. Key theoretical models that explain how learning occurs in everyday practice include social/conflict theory (Livinstone 2005) which identify issues of power and control in the workplace, situated/cognitivist theory (Eraut, M 2004; Eraut, MR 1994) which explain learning as dependent on what is perceived and understood in the work context, and mediational theory (Illeris 2004) which identifies specific factors in the socio cultural context of work that mediate the what and how of learning ((Sawchuk 2008)). These models are constructed with reference to situated or socio cultural approaches to learning characterised by the work of Lave and Wenger (Lave 1991)1991), Engestrom & Middleton (Engestrom 1998) and Wenger (Wenger, McDermott & Snyder 2002). The models and the studies that support them locate the organisational and socio cultural context in which work takes place as critical to understanding learning per se.

Although subject to ongoing analysis and disputation (Billett, 2002), the concept of informal learning is integral to each of the key theoretical models above. The concept is commonly understood not as the polar opposite of formal learning, but as part of the same continuum (Colley 2003). In this view, ' it is more accurate to conceive ‘formality’ and ‘informality’ as attributes present in all circumstances of learning.’ (Ibid: i). How it occurs is appears to be the result of multiple factors identified in the theories above:

> Informal learning at work is the product of the interaction of different modes or dimensions of cognition, socio-emotional factors, as well as a range of mediating factors producing skill, knowledgability and expertise which ultimately both shape and reproduce power and control in terms of domination, accommodation, cooperation as well as intransience and resistance.’ (Shawchuk, 2008: 8)

The concept of informal learning is identified as critical to conceptualising professional development processes for both HE academics and VE/FE teachers. In the case of the VET sector, work based learning approaches are central to thinking about professional development processes. Action research and the communities of practice concept inform thinking about professional development practices needed to achieve change for VE teachers (Harris R 2005). Ongoing research into how TAFE teachers’ everyday learning (Boud D 2003) points towards integration of the concept for strategic reasons:

> Everyday learning is paramount in the day to day jobs of employees and therefore should be viewed as a central consideration in all discussions of learning and training initiatives. It is the ability of everyday learning to address day-to-day issues of workers that highlights its significance for TAFE. This warrants its consideration alongside structured learning to maximise the greatest overall potential for TAFE.’ (Ibid :18 ).

There are similar calls for consideration of informal learning in professional development practice for academics (Blackmore 2006; Boud 1999; Hicks 1999; Knight P, TP 2000; Reid 2003). The situatedness of learning is foundational to a growing number of proposals to reconceptualise academic development so that support is located close to learning in the everyday context. For example, a recent study by Knight et al (Knight P, TJ, Yorke M 2006) into the extent of non formal learning in the professional learning of academics led them to conclude that professional development ‘should be on activity systems’ (P. 336) and that a focus on these should be ‘fundamental not incidental’ (p. 328) to educational/professional...
development practice. Others such as Blackmore and Blackwell (Ibid) argue that reconceptualisation of practice in this direction is strategically critical for the field of educational development itself.

The studies above point towards the use of new conceptual tools in the design and delivery of professional learning so that informal learning is understood and acknowledged. They also indicate that the role of informal learning in the work of TAFE teachers and higher education is increasingly considered in educational development practice. Although there is recognition that putting informal learning at the centre of professional learning remains a challenge (Boud et al 2003), there is an emerging focus on the discursive environment and how it shapes professional behaviours and practices in both areas of work.

The discursive environment in multi sector institutions is complex because of the wide variation in ways that knowledge is understood and enacted in professional practice across VE/FE and HE. These practices are informed by what is known of the institution in relation to the other discourses that shape work: business and industry in the case of TAFE teachers and the disciplines in the case of academics. ‘Coming to know the institution’ emerges as a critical focus of professional development, especially in multi sector institutions when there are potentially contradictory ways of understanding the institution and translating these understandings into everyday practice. Professional development processes and practices that consider the role of institutional knowledge in informal learning have potential to inform the everyday practice of TAFE teachers and higher education academics in these settings.

**Researching work in a multi sector institution**

The study quoted above adopted a phenomenographic approach for analysing academic's experience of the phenomenon of working knowledge. The approach aims to explore the experiences of a phenomenon and describe the variation of experiences with in a group (Marton 1997). Experiences of the phenomenon are typically sought by asking questions relating to the referential and structural aspects of the experience - often expressed as the ‘what’ and ‘how’ of an experience. Experiences of individuals are ‘stripped’ and mapped to show the variation in understandings of the phenomenon. The resulting descriptions map the different ways that a phenomenon is known and understood within the group. The approach arises from a humanistic view of the world that sees knowledge as relational and situated in experience (Ibid: 110).

The findings of the study are that there is variation in academic's experiences of the phenomenon of working knowledge and that this is related to the phenomenon of being an academic. The variation in the ways of being an academic varied from pseudo/imitating experiences based on understandings of knowledge itself as disconnected and ad hoc, to rethinking renewal experiences based on understandings of knowledge as conceptual and holistic. In the pseudo/imitating experiences, teaching, research and institutional administration were experienced in a fragmented manner, reflecting understandings of knowledge as atomistic, finite and incontestable. At the other end of the spectrum, in rethinking renewal experiences teaching, research and institutional administration were experienced holistically, reflecting understandings about knowledge as pluralistic, contestable and essentially unstable. In the more complete experiences of the phenomenon of working knowledge (rethinking renewal ) there is simultaneous discernment of all aspects of the related phenomenon of academic work itself. That is; the disciplines and the institution are discerned holistically and subsequently enacted in practices relating to teaching and research and institution administration. In less complete experiences, fewer aspects of the disciplines and the institution are discerned and enacted in practice.
The implications of these findings are that holistic discernment of aspects of the phenomenon of working knowledge is critical to how aspects of work are enacted in everyday practice. For example; holistic discernment of aspects enables interpretation of the context of work *per se*. Expanding academic’s awareness of the aspects of a phenomenon enables learning to take place (Bowden & Marton 1998). It is argued that seeing what is stable and what is variable in a situation or a phenomenon creates conditions for learning (Marton & Pang, 2006). In this is the case, building understandings about the different ways that it is possible to be an academic – to make choices about practice based on understandings about the aspects of everyday work requires a focus on what is stable and what is variable in everyday practice. The findings of the study point to institutional administration as a key variant.

The findings of the study above are relevant conceptualising professional/educational development in a multi sector institution. We know from the study that there are different ways of experiencing academic work. It is therefore possible to hypothesise that there would be different ways of experiencing work as a VE/FE teacher. We also know from the study that the institutional administration is experienced in different ways. It is therefore possible to hypothesise that there will be variation in the ways that institutional administration is enacted in everyday practice by VE/FE teachers and that this is also a key variant that informs VE/FE practice. It is possible to hypothesis that professional development approaches in multi sector institutions can be founded on expanding awareness of the aspect of institutional administration in the context of the other aspects of everyday work for VE/FE teachers and HE academics. The aspect of institutional administration in everyday work therefore becomes central to approaches professional development. Further research into VE/FE teacher’s experiences of everyday work is needed to develop such approaches.

**Conclusion**

This paper draws on the findings of a study into how academics make sense of the knowledge they use in their everyday work to discuss how professional development processes and practices in a multi sector institution could be conceptualised and developed.

It is argued that understandings about the working knowledge of academics and VE/FE teachers should underpin approaches to professional development in these settings. It is suggested on the basis of the findings from the study that:

1. more research is required into the working knowledge of VE/FE teachers to inform thinking about professional development approaches in multi sector environments
2. ontological approaches should be considered and applied in these settings; and
3. the concept of informal learning should be utilised in developing these approaches.
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