Feeling the Heat - Developing individual, social and professional agency for, in and through work placements

Abstract In this world of uncertainty and incessant change, young people must be empowered to negotiate risk, reflexively construct identities and make choices (Professor Furlong in Wyn, 2009). Such qualities are developed through experiences in a variety of practice-based learning environments that offer opportunities to make decisions and judgements particular to the purposes of the specific contexts. University classrooms offer limited opportunities (Hayward, Blackmer et al. 2007), while workplace contexts are a rich source of practice-based learning situations for developing agentive students. A case study conducted across a small cross-section of stakeholders involved in a co-operative education (co-op) program within an IT business degree in an Australian university, found evidence of students developing senses of self through actively engaging in the co-constructed and co-participative practice of exercising agency to emerge as budding professionals. However it was found that being in the workplace did not necessarily promote agentive development. Building individual capacity is not solely individually driven but powerfully influenced by others (Beckett, 2010). It is proposed the design, delivery and management of co-op work placements encompass the individual, social and professional dimensions of work-based learning through a whole-of-program approach (for, in and through work placements) that cross university and organisational boundaries.

Introduction

“The self is not something ready-made, but something in continuous formation through choice of action” (John Dewey, 1859-1952).

The development of a professional takes time, lots of practice in a variety of situations and active engagement within communities of practice (Beckett, 2011; Billett, 2008). Yet program accreditation bodies such as the Australian Computer Society expect graduates to be able “to perform a broad range of complex work activities in a variety of contexts”, ”to exercise substantial personal responsibility and autonomy”, “to facilitate collaboration between stakeholders” and “to
make decisions which influence the success of projects and team objectives” (ACS, 2012). Such qualities suggest a level of personal agency, a capacity to exercise control over the nature and quality of one’s life (Bandura, 2001). In 2003 The Skills Framework for the Information Age (SFIA) was established as a system for information technology (IT) professionals to match the skills of the workforce to the requirements of the business. The Framework was developed through the collaborative efforts of many IT people, managers, educationalists and human resource people from around the world. The SFIA defines a comprehensive set of skills through seven levels of competency (from entrant to strategist); however it does not articulate how autonomy, influence, complexity and business skills are acquired and progressed. There is an implicit understanding these will be developed over time with experience.

The findings of a recent case study across a small cross-section of stakeholders participating in a co-operative education (co-op) program, did find evidence of students exercising agentive characteristics. The twenty-six participant sample involved in the study was purposefully selected to capture the complex dimensions of co-op program. The sample included members of academia, industry, alumni and the student body directly and indirectly involved in a business information systems degree in an Australian university, the undergraduate program is delivered over 4 years with a mandatory 40 week co-op work placement in the 3rd year. This placement program has been running for 18 years with participation numbers fluctuating between from 60 to 120 students working in paid work placements across a wide range of IT job. Most placements are local. Students usually return to complete a final year of study after their co-op, in full or part-time mode. The study adopted an inductive design and engaged qualitative techniques to guide the capture, interpretation and analysis of individual perspectives of the sample. The validity of findings was addressed through the triangulation of the multiple perspectives from the diverse set of stakeholders.

In the next section factors influencing the development of agentive qualities of the students are discussed drawing on literature from across the fields of workplace and organisational learning,
professional formation, adult learning, higher education, co-operative education and work integrated learning.

Discussion

There was evidence that most students changed over the co-op year, some more than others. Students starting their placement sought to fit in and assimilate to their new organisation, to participate and engage with others in carrying out their work, and become active, responsible, and contributing members to their workplaces. These changes parallel with Deci and Ryan’s (1985) self-determination theory that individuals are motivated in response to their psychological needs of relatedness, competence and autonomy. In the case of the co-op students and alumni students interviewed it appears that how these needs were satisfied is influenced by the extent of their previous work experiences, their personalities, their interpersonal skills and personal motivations (individual characteristics); their attitude to work, life and learning (learning strategies); and the affordances offered by the organisation in which they were completing their placements (affordances).

Individual characteristics

Students enter their co-op placements with different abilities, histories, interests, personalities, expectations and motivations, but all want the co-op experience to be a positive and satisfactory one. Students have varying goals coming into the co-op placement: to complete it [co-op year] as a mandatory part of the program structure (qualification), to apply university-learnt knowledge and skills and develop new ones in order to get a good job on graduation (employability), to develop expertise in a particular area of interest (expertise), to secure on-going employment within the placement organisation (employment) and/or to experience IT-based work opportunities to set future career directions (“a stepping stone towards benefiting my career”) (career direction). These motivations were seen to be influential in how they chose to approach the tasks in terms of their
interests and enthusiasm, the learning strategies they employed, the extent of effort they applied themselves and their confidence in making decisions.

How an individual chooses to interact and engage with the workplace will depend on the degree of relatedness between individual interests and values and those of the social practice; the greater the relatedness to the people and the organisation the greater the likelihood of individual participation (Giddens, 1984 in Billett, 2002). This study found that even before students started the co-op placements they had formed perceptions and expectations of the placement organisation and the job, based on information gleaned from the internet and by talking to others, together with impressions taken away from the job selection processes (“I could tell from the interview first off when I met my managers, [that the company] was very motivated towards making sure that employees are satisfied, happy, had opportunities”).

Students spoke of assuming a role in those early months (“the first few days there, I was a little more quiet than I usually am”) observing, absorbing, processing what they saw, heard and read. This ability to adapt to a situation is referred to by Devos and Banaji (2003) as plasticity. Students spoke of looking around the workplace for role models on how to dress, behave, speak and work, and adjusted accordingly. Billett (2006) purports the roles individuals select to enact as an important aspect of adapting to, and becoming accepted by, the workgroup. Past experiences determined the role they adopted and how quickly they adapted. Students with little or no work experience were inclined to assume a passive role waiting for direction on what to do next and how to proceed.

Students with good social skills and outgoing personality held an advantage over students that were shy or had less confidence in their communication. One employer observed of some students “for the first month or so they’ll sit there and they won’t say boo to anybody”. These findings are similar to those of Te Waita (2006). Students with previous working experience also appeared to be quicker in taking up opportunities offered and settled into the organisations more quickly.
Garavan and Murphy (2001) and others suggest universities could do more to prepare the students for those first months by encouraging them to take on an active learning approaches to controlling their own job search process by firstly becoming more aware of their own values, interests and motivations, identifying job opportunities, researching the company beforehand, and maximising the job selection process. Self-awareness and critical reflection of individual strengths and weaknesses focus learning as becoming and co-op placements as an invitation (Billett, 2009) to grow.

Learning Strategies

Within co-op placements the majority of tasks carried out by students involve maintaining current work processes, solving problems, improving current practices and identifying new opportunities. At the heart of all these tasks is the need to make decisions that involve human and/or non-human artefacts directly and/or indirectly. Making decisions involves developing thoughts and intentions beforehand, self-reaction and self-regulation in carrying out the tasks and reflectiveness on own capabilities and performances that lead to self-correction and direction in future activities (Bandura, 2001). The key to making any decision is having access to the necessary resources and people to make it well informed. Yet the information required may be explicit, implicit and/or yet unknown. Eraut (2010) found individuals draw on their personal knowledge and capability to think, interact, perform and learn.

What arose from the data in the student sample was evidence of different approaches being taken to learning in their workplaces: learning through observation, doing a task repeatedly, making mistakes and/or asking lots of questions. Smith (2007), Billett (2008) and others similarly found workers employed a variety of learning strategies in developing an understanding of the job/task/situations to do their jobs. These authors found the various learning approaches were influenced by personal motivations and the depth and breadth of access to human and non-human artefacts for guidance, support and feedback (affordances). Evidence of the various learning strategies and what influenced them are discussed further in the following sub-sections.
Much of the knowledge needed to carry out tasks is embedded in the organisation’s work practices and access to it depends on interactions with others in the workplace. Seeking out knowledge requires learning strategies and confidence. Developing learning strategies means drawing on past working and educational experiences to deploy a range of information seeking skills (Smith, 2006) and adapting them to the current circumstances. A couple of students in the sample commented on how they initially expected to be able to apply university-learnt knowledge and skills to the new job and were surprised that their previous learnings were insufficient. Another student observed the difference by the changed context: “It’s not until you start working and you’re in an office and people are using the words around you that it triggers and it all makes sense”. Students starting co-op and with no previous work experience were unaware of the importance, depth and breadth of ‘know-how’ held within individuals in the workplace. The students who had worked previously were more likely to approach colleagues for answers: “I ask my manager for any hints, people around me … they will know everything and anything …So you just ask questions”.

All the students in the study spoke of having to rely heavily on informal learning methods for accessing knowledge such as researching company documentation (usually available via the company’s intranet) and internet research and were not inclined to approach their supervisors and/or work colleagues with questions or requests for assistance, particularly in the early stages of their placement. It was also found that students turned to indirect guidance methods such as observing, listening, utilising models, pattern recognition, clues and cues about work (Billett, 2007). Tacit knowledge was gleaned in the practice of carrying out tasks. Through repetition, trial and error and making mistakes individual performances improved and expectations increased. These renewed expectations are reflected in one of the student’s comments (“…he knows I’ve done a few things more than once so he would…he expects me by now to remember and not to make the same mistake again”).

As some of the students became more competent and confident in the execution of their tasks, their learning strategies were refined. For example some became more willing to ask questions and
contribute their thoughts to discussions. Vygotsky in Valsiner and van der Veer, (2000) observed this development of agency extends their prospects for further learning. However some learning strategies disappeared altogether where students became de-motivated due to the lack of opportunities offered by their organisations.

**Organisational affordances**

**Defined, meaningful jobs**

Within a workplace, success or failure for new employees is reliant on how quickly they meet the requirements of the job. Having defined jobs gives employees purpose and a sense of worth in the company (Smith, 2006). However, many students arrived at their organisations on the first day and the workgroup they were assigned to, didn’t know they were coming. Some students spoke of spending the first few months at their desks reading manuals until the workgroup and/or supervisor sorted out what to do with them. In many cases it was up to the student to seek out guidelines on the job and information on the tasks they were to perform. In stark contrast other organisations were prepared for the student, as in one case ("They were prepared for me, they had a development plan ready for me...everything set up, like training").

Eraut (2010) and others support the importance of proper induction of new employees into the organisation. However many organisations offering placements for the first time are not aware of their responsibilities to the new student. I therefore contend the University has a responsibility to induct the organisation into the co-op program by providing appropriate guidelines and setting expectations.

Co-op jobs taken on by the information systems students vary from being highly technical to less technical but highly client-focused. The study found a low regard for helpdesk jobs (referred to as “Mickey Mouse”) as they were seen to offer little opportunities for developing IT knowledge and skills (“[Working] in the helpdesk did not really given me more exposure on what I’m studying apart from customer service and knowing a bit what working in an organisation is like”). This
student’s view was duplicated in some of the comments from academics and highlighted a perception that IT knowledge and skills are of more valuable than the problem solving skills, client empathy and communication skills the students develop through the job. Yet the industry research stresses the importance of these skills and attributes for survival in the workplace and vital for enabling improvement (Te Waita, 2006). Many claim university agendas drive pedagogies, curricula and assessment that perpetuate a narrow view of learning with many students’ minds linking learning to classrooms and not recognising workplaces as sites for learning (Eraut, 2007).

In the early part of their placements students were happy to complete routine and less challenging tasks as long as they perceived it had some value to the workgroup and the company. These findings support those of Billett (1996) who claims an individual will develop knowledge further if they think it will be useful to others and recognised as useful. An explanation of the significance of the task to the workgroup/organisation was found to contribute to their motivation to complete the task (“I know it’s an important job”). As their confidence grew and they became familiar with their surroundings, students were keen to experience a variety of different tasks, of increasing complexity and levels of difficulty. The timing of task difficulty varied with each individual as one supervisor observed: “Everyone’s got a different pace sometimes it can be a matter of confidence if they’re really lacking in confidence, they can be slower to develop”.

**Guided learning and professional development**

Although immersion in the workplace and participating in everyday work activities has been shown to develop many skills and capacities (discovery), it does not “follow that everyday work experiences are conducive to adapting or transferring workplace learning to other circumstances and situations” (p 31, Billett, 2002). Participation in everyday activities has the potential to develop competencies, but without structure, organisation and refinement, Billett (2007) purports such learning may promote bad habits, be limited, lack guidance and support, lack understanding or inhibit future development. The presence of an intentional guided learning plan had a significant impact on augmenting the students understanding of organisational procedures and practice, “they
had a development plan ready for me … everything set up, like training“. Significantly, induction programs usually involve interactions with other people in the company (Billett, 2009). There was also evidence of workplans developed in consultation with the student. One employer noted: “We also need to recognise that these people are trainees. We have a requirement to fulfil some outcomes they’re expecting. And while we all go into it with that outlook, it seems to work”. However there were instances where the supervisor was not well-versed by either the company or the University as to his duties and responsibilities for his student: “He [the supervisor] just didn’t really understand that I’m here on Co-op and there’s more to learn than just technical side of things, there’s a lot of politics, communication skills and personal skills that you learn and pick up”. Often decisions made regarding co-op programs such as where the student was located and who would be their supervisor, were made at upper management levels and not relayed to the individuals involved. Consequently the workplace supervisor (and members of the workgroup) did not necessarily have the best interests of the students at heart, the experience or inclination to supervise the student and may or may not be welcoming or supportive (Pepper, 1997).

Talking to the various stakeholders in the sample it emerged that organisations differed in the structures, processes and cultures without respect to how conducive they were to student learning and development. There was evidence of well-planned induction programs and work performance plans that drew on “buddy systems” to induct the students and support their personal wellbeing; of supervisors actively guiding their students through the placement; and of workmates to provide the support (“to bring them up to speed”). However as Down (2006) observed not all organisations offered such learning environments and there was no guarantee learning would take place. Yet this study did find that a conducive learning environment had the potential to motivate the students through: (a) its learning opportunities, (b) the quality of its supervision; and (c) opportunities for membership to teams and/or workgroups.

(a) Learning opportunities
Students spoke of learning the most through interacting with others, in particular (i) working alongside others such as buddies and workgroup colleagues for on-the-spot information and feedback; (ii) working in teams for seeing other perspectives; and (iii) getting feedback on work performance.

(i) Working alongside work colleagues. Many students talked of the value of working with colleagues in becoming aware of their tacit knowledge (“you wouldn’t believe the amount of knowledge my work colleagues have”).

(ii) Working in teams. A number of supervisors spoke of the value of placing students in large teams to increase their knowledge base with others’ perspectives (“the value of working in large teams...subject matter experts come in and fade out again”) and develop interpersonal skills (“They [the students] learn how to do the communications … there are a lot of complex interactions”)

(iii) Getting Feedback. Students spoke of wanting and needing their supervisors and/or colleagues to give them feedback on their performances as to: whether they were doing well (“So if I’m doing something wrong, I want to know about it”) and meeting standards (“I can see the kind of standard he expects, like the standard he expected from me at the beginning is not the standard he expects from me now”), how to fix mistakes (“Instead of pointing the mistake at me, he goes through the module with me”) and how to improve (“So if I’m doing something wrong, I want to know about it”).

Many students commented on their supervisors being “very very busy” and being disappointed about not receiving feedback from their supervisors (“I didn’t get any feedback which is very bad”). These findings support other studies that identified supervisor feedback is generally difficult to obtain due to lack of motivation of supervisors to do it (Cates and Lemaster, 2006, McNamara 2008). The process of giving feedback was seen as confirming that their work was important (“Just a small bit of feedback makes you feel good, like your work is actually worth something to the company”) and they were valued (“they believe in me”). Without regular feedback students became de-motivated with one student observing “But there’s no regular ongoing assessment. So it does
make it hard, and motivationally it’s not the greatest politics”). Eraut (2010) found lack of feedback and encouragement can potentially de-motivate students in their work.

(b) An engaged, proactive supervisor

Groenwald (2004), Forbes (2007) and others identify that workplace mentor/supervisors are critical to the success of workplace placements. What emerged from my interviews and a close analysis of the data was the high quality of the engagement of the supervisors with our students. I found the majority of the supervisors being quite proactive in their role: (a) seeking knowledge from managers, human resources staff, the University and their students to get a clear understanding of their roles and responsibilities; (b) negotiating with the students to maximise their goals within the frameworks of the organisations purposes (“We also need and do recognise that these people are trainees, we have a requirement to fulfil some outcomes they’re expecting”); (c) developing work plans to develop students’ abilities and confidences (“It takes usually around 3 months for them to be properly orientated and feed their confidence and give them a series of tasks to learn”); (d) allocating and sequencing tasks in terms of complexity and student ability (“he gives me the assignments, the little jobs I do. In the beginning, he was very flexible with me”); (e) adjusting the pace to suit the student abilities (“We work out what pace he could go at”); (f) giving feedback on task performances; (g) giving encouragement (“he gives me a little push in the right direction”); (h) gradually increasing student freedom and responsibly (“I was a bit more free to make your own decisions”). The literature supports the positive effects on students of having engaged supervisors providing direction, guidance and support (Eraut, 2007).

(c) Membership in a workgroup/team

Membership in a work group has the potential to encourage an individual to view working life from different and shared perspectives; and direct that individual as a peripheral participant to becoming a central, skilful participant in a community of practice (Beckett, 2011). What emerged from my analysis were various examples of how students chose to exercise their agency within teams: to
access expert knowledge and other perspectives (“subject matter experts come in [to their team]”),
to get assurances for decisions made (“as someone who has never worked before I’m thinking…”),
to understand teamwork (“the dynamics between people and the way that people work with each
other”), to develop communication skills (“learn how to do the communications … there are a lot of
complex interactions”), to get motivation (“they believe in me”) and to develop self-efficacy (“I
believe in myself”). Being part of a team was found to have a great impact on students’ attitudes
and motivations. One case in point is where an unhappy student was moved to a different desk
where he then felt part of a team: “From that moment, there was an enormous difference in his
overall attitude but also in his throughput” (Manager).

The discussion in this section highlights the uniqueness of each placement due to the diversity of
the individuals involved, the contexts in which they work and the choices they make to interact and
engage with others. Each individual experiences co-op differently and the learnings they take away
are subjective. Some of the students in my study demonstrated that they learnt and developed, in
spite of their surroundings, due to exercising their own agency for learning this paralleled research
studies that found the development of a ‘sense of self’ through work (O’Doherty and Willmott,
2001 in Billett, 2008). Yet building individual capacity is not solely individually driven but
powerfully influenced by others. My findings support this socially located and driven agency and
suggests support for Beckett (2010) with his broader definition of agency that locates the individual
“amidst the inter-subjective messiness of daily work life” and the process of self-determination is,
“less of me, and more of us” (p. 118).

**Implications for Practice**

The review of the literature around co-op touches on some of the complexities of workplace-related
learning. The co-op placement offers a unique learning opportunity for students. However, a
successful learning program in the co-op workplace is the shared responsibility of the student, the
employer and the university and is most successful with the active involvement of all parties.
Martin in Howe and Patrick (2007) observes the best co-op placements are those where industry and universities are seen as equal partners involved in the planning of the overall experience and student’s professional development. A holistic model of co-op is proposed that encompasses the individual, social and professional dimensions of work-based learning, encourages individual and social agency to engage in mutually satisfying and rewarding workplace relationships. Although co-op programs are contextualised within university programs, they draw on resources (human and non-human) from various levels within the university, host organisations and various communities of practice. Some elements of the potential model include (a) the design and delivery of an integrated curriculum that crosses university and organisational contexts; (b) purposeful engagement between placement participants; and (c) planned conversations for critical thinking and reflection within groups and communities of practice.

(a) Intentional integration of program and workplace curricula

Each individual (student and workplace supervisor) involved in co-op comes with his/her own histories, characteristics and motivations. Within a placement, they draw on their resources from within and what is available to them. It is therefore important that each individual has the necessary knowledge, skills and dispositions to be able to respond to whatever situation they are in as with knowledge comes the confidence to make decisions for action. Both discipline-based knowledge and skills in concert with generic attributes such as communication, self-management, interpersonal, business context awareness and positive attitudes, are necessary for the development of the embodied (cognitive, affective, social, ethical) individual. Students need to have a sense of self-awareness of their strengths and weakness, their interests and motivations and be encouraged to draw on past experiences, reflect on present circumstances and consider and plan future career and life directions. Career planning, learning theories and strategies to transition smoothly into any new workplace should intentionally be integrated into program structures and course curricula.

In order to design and deliver a planned, intentional learning curriculum that encompasses both the university and workplace contexts, staff involved in designing and delivering courses need to be
kept current of industry developments, issues and trends. Communications systems between students and industry together with formalised processes can monitor the strengths and weaknesses of programs and provide feedback to teaching academics and program teams for course and program renewal.

An awareness of the complexities and diversities of the business world, what to expect from the co-op year together with various learning strategies they can use, may help ease their transition into their organisations. Encouraging students to develop research skills and their interpersonal skills through a variety of tasks in a various contexts could improve student confidence accessing the knowledge required to learn on the job. DEST (2007), Hager and Holland (2006) and others propose active approaches be employed by educators that follow adult learning principles; holistic approaches to learning; problem-based learning; lifelong learning skills; learning how, why and what if; reflective learning; active, learner centred approaches and role modelling.

(b) **Purposeful engagement between placement participants**

Universities and organisations are driven by different imperatives, universities by learning, and organisations by productivity, delivery and service. Building mutually satisfying and rewarding relationships between the university and the organisation requires (a) clearly defined roles and responsibilities for all participants, (b) stakeholders being able to negotiate the terms of engagement, (c) planned, purposeful engagement between the participants.

Much can happen (or not) over a 12 month placement. It is therefore proposed the university monitors the nature and development of the student-supervisor relationship throughout the placement (start, middle and end). The first consultation negotiates and sets up the rules of engagement and inducts the new workplace supervisor into the co-op program. A mid-placement consultation reviews the student’s personal and professional development, situation and well-being. A pro forma listing attributes, qualities dispositions and skills required of business professionals, can be used to review student’s professional development and promote discussion between the
tripartite to review goals and action plans (if required) for the remainder of the placement. The task difficulty, challenges, support and learning environments provided to the student is also investigated at this time and re-negotiated accordingly. The final debriefing session can be designed as a required, measurable assessment outcome of the work placements.

However, the extent of involvement and support by a university with each work placement needs to be flexible and dependent on the experience of the supervisor, the student’s personality, capabilities and motivation, the nature of the work the student is required to perform and the affordances offered by the organisation. Some organisations have strong learning cultures with well-developed recruitment, induction and graduate programs and require little direction by the University; while other organisations are productivity-driven and rely on individual agency and autonomy and students are often left to their own devices. Some students accept the challenges and shine, while others become anxious, withdrawn and unhappy. Preparing students with the knowledge and skills in the first instance to recognise organisational cultures through organisation profiles and job interviews will enable students to make more informed decisions regarding the nature of the working environment.

(c) Planned conversations for critical thinking and reflection within groups and communities of practice

It is advocated that adult learning principles be adopted to develop reflective, self-directed learners through planned programs (events and assessments) to encourage critical reflective thinking and conversations between and within stakeholder groups. Left on their own, students’ reflections in learning journals can be quite superficial. Guided questions can prompt deeper reflective thinking and reflexivity. Better still are the reflections that occur as a consequence of interactions and engagements with others such as work colleagues, student peers and members of various communities of practice. Regular face-to-face forums for students on placements provide
opportunities for students to share and discuss experiences and critically reflect on what learnt about organisation, work and themselves.

**Conclusions**

Diversity of organisational contexts, complexity of work placement relationships and individual value differentiation within and across stakeholder groups suggest no two placements are alike. However, the study found conditions that promote the development of agency rests with the learning strategies employed by the student; the depth and breadth of the guidance, support and feedback received on work performance; and the opportunities afforded by the job for personal and professional growth. It was found that individual learning and transformation are heavily reliant on the social and contextual dimensions of learning, engagement and influence.

It is proposed both universities and organisations take a shared, equal responsibility for enabling students to become contributing members of their professions and society. Affordances offered by both universities and organisations to the student, workplace supervisor, teaching academic and professional staff have an impact on the nature of the work placement experience and are tied to responsible strategic decisions, appropriate learning cultures, suitable implementation structures, processes and management.

Universities can design and deliver programs and courses that intentionally inform and prepare their students for placements and processes and resources that can guide organisations in planning for co-op. The curriculum design can be such that students are encouraged to take ownership of their own learning and development. Active learning environments have been found to be conducive to the development of proactive, agentive students. During co-op placements universities can have processes in place that intentionally guide learning and promote reflective conversations between the various stakeholders. Planned, regular interactions between various cohorts during the placement can ensure that continuing learning and development stay at the forefront of placement agendas. The engagement of stakeholders in mutually satisfying relationships before, during and
after co-op placements lay the foundations for relational webs of communities of practices. These communities in turn create bodies of new practice knowledge that sustain and grow university programs, strengthen the professional bodies and thereby enrich Society.
References


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