

# Internship learning as transactional sociomaterial experiences in media industry: What do undergraduate interns tell us?

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## ABSTRACT

Professional learning is complex and is the result of a mix of experiences made in academic and workplace settings. An interesting step in the learning trajectories of professionals is represented by internship. Interns have to engage in boundary crossing when connecting academic learning with professional practices. An interesting issue to explore concerns the experiences of undergraduate interns when they encounter challenges in workplaces. Drawing upon Dewey's notion of experience to examine internship learning, this article focuses on the role of sociomateriality when neophytes—interns—enter the workplace. Analysing semi-structured interviews with undergraduates ( $N = 38$ ) performing their internship at the public relations and communication industry where internship is not an established practice, we present three findings. First, materiality of work activity plays a central role in organizing learning for interns at the workplace. Second, interns report networking at the workplace for convergence of work objectives which in turn provides opportunities and constraints for learning about the logic of workplace activities. Finally, interns report balancing between different identities during internship practice in order to direct their participatory efforts within the complex workplace organization. The value of internship learning calls for agency from the learners while considering the implications for the workplace organisations where learning experiences are located. Finally, we bring attention to the role of the workplace supervisors and faculty members in the development of professional learning in such complex professional learning settings.

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**KEYWORDS**

internships, sociomateriality, workplace learning, transition

**INTRODUCTION**

In recent analyses of professional practice and learning, much research has taken a “practice turn” to emphasize the embodied activity and configurations of practice in which professional work and learning are imbricated (Corradi, Gherardi, & Verzelloni, 2010; Hager, 2019; Hager, Lee, & Reich, 2012; Schatzki, 2001, 2012). Some emphasize the sociocultural and historical dynamics of transformation of practices and their implications for skills and learning (Daniels et al., 2013). Others highlight the importance of materiality, often overlooked in everyday work and life, showing how both social and material relations are entangled in shaping professionals’ practices as well as their capacities and knowledge (Feldmann, 2016; Fenwick, Nerland, & Jensen, 2012; Orlikowski, 2007). This article attempts to grip the bull by its horns, acknowledging the complexity of professional practice, to focus on how internship learning can help attune young adult learners to the multiple and complex nature of work. In doing so, we assert internship experience as assemblages of discourse, work processes, and knowledge cultures framing the subjectivities of young adult learners (Fenwick, 2013).

Internships are vital work-learn contexts for professional learning. This is especially so in knowledge-intensive organisations, where work environments are fluid and workers are adroit at boundary crossing between activity systems for creating new knowledge and practices (Harreveld & Singh, 2009; Kerosuo & Engeström, 2003; McMurtry & Gagnon, 2013). In several professions, there are institutionalized structures for organizing internship as a constituent of the professional learning trajectory. Examples here would be nursing, medicine, teacher education, legal training and internship programmes in companies. In this article, we will analyse internship in lines of work that do not have an established pattern of professional learning by focusing on internships in the advertising and media production industries. The professional responsibilities of those working in these industries are diverse and complex, and many of the situated skills are difficult to learn in academia. Unsurprisingly, the internship experiences in these kinds of settings have been reported as immersions into complex, dynamic and interconnected processes of reworking and repackaging information for different audiences (Bremner, 2014).

Notwithstanding internship learning experiences as sites for skill acquisition and career exploration (McHugh, 2017; Virtanen, Tynjälä, & Eteläpelto, 2014), there is a need to make visible the processes of learning during internship. Current understanding of the challenges that undergraduate interns face during initial weeks of internship suggests interns constantly make critical observations, grapple with the technologies used at the workplace and the organisation of work processes to integrate oneself within the company (Authors, under review). We next aim to examine learning over the entire duration of internship, where learners entangle with different configurations of work activities. In doing so, internship as part of professional learning can be understood in relation to a reconfiguration of material-temporal-spatial work activity. Thus, the first part of this paper presents Dewey’s ideas of experiential learning that allows us to understand the way in which the realisation of the activity by the experiencing learner defines the learning, and, in return, how by focusing on the phenomenological aspect of internship



learning, including paying attention to sociomaterial sensibilities, we can attempt to unpack some of the complexities of professional learning. Following the presentation of the context of our research, we will describe the methodology used to answer the research question of how undergraduates engage in professional learning during internship. The discussion will attempt to untangle the complexities of professional learning for further research.

## LITERATURE REVIEW: LEARNING IN PRACTICES

Interpretations of learning play an important role in society, and the metaphors adopted co-determine decisions that regulate curricula, access to education for various groups and the evaluation of outcomes of learning. Even though there are sharp conflicts between various theoretical traditions, for instance between behaviourists and cognitivists, a shared assumption is that learning is a matter of reproduction of what is already known. For the behaviourist, the Stimulus-Response connections of conditioning imply copying behaviours that can be defined ahead of time. In cognitively orientated traditions, focusing on the acquisition of conceptual knowledge, learning is successful to the extent the learner is able to identify and reproduce a given concept according to some predefined, usually scientific, standard. Furthermore, in both these instances, the assumption is that when the goal of successful reproduction has been reached, learning is complete, as it were.

This metaphorical construction of learning as basically limited to reproducing what is already known has a long history in society, in educational practices and in the wider interpretation of what learning is all about. At one level, it is obvious that there is some substance to this line of thinking; societies rely on processes that make their “cultural memory” (Donald, 2018) accessible to new generations. But, the problem is if it is reasonable to assume that these, essentially reproductive, metaphors tell the full, or even most interesting, story of what it means to learn in contemporary society.

Over the centuries, alternatives to this reproductive metaphor have been suggested. One well-known example of such an alternative is Dewey’s concept of inquiry and the idea of transactional perspectives on actions/activities, as suggested within the pragmatist tradition (Dewey & Bentley, 1949; cf. (Clancey, 2011)). Dewey explicitly objected to a view of learning which rests on a metaphor of “pouring knowledge into a mental and moral hole which awaits filling” (Dewey, 1966, p. 51). To support “growth” (ibid. p 41), there is a need to recognize that the end of learning is not necessarily predetermined or known in advance. In this perspective, learning is viewed as a constitutive element of an ever-developing organism-environment relationship. To characterize the dynamics of such relationships, Dewey makes a distinction between inter-action and transaction referring to the ways in which the organism-environment connection evolves. Inter-action implies that the interacting elements stay the same during the activity, while transaction implies that the elements of an action are reorganized to form a new organism-environment relationship. A central element of this dynamic relationship is “inquiry”, which is conceived as “the controlled or directed transformation of an indeterminate situation . . . into a new “unified whole”” (Dewey, 1938, p. 108). Thus, inquiry “emphasizes that learning is an active, dynamic process of investigating, probing reformulating, hypothesizing, examining, manipulating, deducing, theorizing, experimenting” (Clancey, 2011, p. 250). Adopting Dewey’s point of view, learning cannot be separated from the situation and the actions that evolve in



practices, nor can it be divided into separate subcomponents or subprocesses that causally explain an outcome. Rather, learning is an integrated feature of an activity, and it incorporates a range of actions and the whole person. This is clearly an alternative conceptualization of learning.

Within the field of professional learning, work activity can therefore be considered as the result of a system of interactions produced between humans and non-humans such as artifacts, norms, rules, tools and technical objects, which makes it possible to achieve work objectives (Clot, 2008). Hence, an activity occasions learning when it is consciously connected with the return wave of the consequences of actions performed. As a result of an experience in Dewey's sense, learners make connections between what they do to things and what happens to them in consequence, and learning can be said to have taken place when the learner realizes the value and relevance of an experience for guiding future action. Knowing in this perspective implies an enactment of knowledge, which, in turn, will be consequential for the individual as well as the activities performed. The interplay between the learner and the environment, when transactional in nature, encapsulates the quality of the learning experience. This continual reorganization, reconstruction and transformation of experience is central to a Deweyan approach to understanding learning.

Translating this perspective to the general field of higher education and professional learning, much development has been made in organizing what is referred to as experiential learning for students. With a stage-based approach to learning that takes into consideration the affective, perceptive, cognitive and behavioural dimensions of the learners, experiential learning has become synonymous with Kolb's experiential learning cycle (Kolb, Boyatzis, & Mainemelis, 2001). However, it has been observed that such stage-based approaches to learning may not necessarily recognize multiple learning processes. Associated challenges related to consideration of the goals, purposes, and intentions of the learner are neglected, and this may fossilize the description of the dynamic nature of learning and transformation.

Addressing the challenges described above in relation to professional learning in work-integrated learning environments, current learning theories such as situated learning (Lave & Wenger, 1991), action theory and boundary crossing (Guile & Griffiths, 2001) as well as pedagogy of the workplace (Billett, 2011), offer wider perspectives on how learning can be a process of change within an individual as well as a feature of the reorganization of work practices. However, given the challenge of unpacking professional learning at knowledge-intensive organisations, where the competitive advantages come about through use of innovations from business development strategies for knowledge flow within organisation boundaries (Brown & Duguid, 1998), we need to attend to sociomaterial sensibilities to rise above the classical preoccupation of a single individual using tools of work for achieving pre-determined objectives in order to examine the mangle of practices underpinning professional learning.

In the extended study of everyday practices and challenges of becoming a professional, research has demonstrated that individual-centred notions of practice and professionalism are inadequate. Proposing a more helpful conception of relation agency that relies upon mutual attuning and adjustment to others in the collective for professional practice and learning, we gain insights for understanding the nuances of professional work happening in multi-agency work or inter-professional teams (Edwards, Daniels, Gallagher, Leadbetter, & Warmington, 2009). Where the material and the social features of a practice are viewed as mutually



constitutive, it has been shown that geography teachers' sharing sessions involving sharing, listening in, observations of video recorded teaching sessions, mediated the professional learning of teachers through immersion in and engagement with the geographic community of fellow teachers (Mulcahy, 2012). Similarly, focusing on how midwives were projecting themselves as mentors and supervisors, preferential use of certain tools of their trade, work routines, observations of fellow colleagues for decision fostered performance as well as surfaced the co-existence of multiple identities within the professional community (Nicolini & Roe, 2014).

Sociomaterial sensibilities for reconfiguring our understanding of professional learning are gaining traction, and such sensibilities alert us to the ways in which knowing is enacted in complex activities, and how newcomers gain access to the "economies of meaning" (Wenger, 1998, p. 198ff) cultivated by organisations. Joining fellow researchers above, we therefore turn our gaze towards professional practice and learning as enacted through the use of artefacts and technologies as much as by human capacity, interaction and decision-making (Fenwick, 2016). Consequently, when we examine the heterogenous configuring of human engagement with the affordances present in the internship workplace, new understandings of workplace learning in highly dynamic and fluid practices can emerge.

## CONTEXT OF RESEARCH

Internship learning in public relations and communication professional domains offers the context for our current study. This work is drawn from a larger research project focusing on issues related to the developmental value of internship for career growth of undergraduates enrolled in autonomous universities in Singapore. The professional internship programme defining the context for this analysis includes penultimate year undergraduate students from the academic field of communication studies in Singapore. Within the graduation requirements of their programme, undergraduates are required to participate in a 20-weeks professional internship with business organisations offering internship positions in public relations, media production, journalism or digital communications. Undergraduates apply for the positions made available through their university's career portal or they contact the companies directly. During the internship period, undergraduate interns are supervised and evaluated by a faculty mentor. All interns are paid an allowance for the duration of their internship and are expected to engage in full-time work of 40 h per week.

## METHOD

This study employs a descriptive method inspired by phenomenological approaches to learning (Van Manen, 2016) to study Communication Studies undergraduates ( $N = 38$ ) interning at public relations, media communication organisations in Singapore. To explore the depth of internship experience from the perspective of undergraduates, we designed a longitudinal study by conducting in-depth semi-structured interviews for research participants during the 10th week and 20th week of their internship programme. During the interviews, research participants described their experiences with reference to the various work activities performed during internship, challenges encountered during work, relationships formed during internship and



their perception of their overall internship experience. Interviews lasted for at least an hour, and they were conducted at convenient timings of the research participants either at their workplace or via Zoom. All audio recorded interviews were subsequently transcribed and subjected to analysis through a series of reductions. The first stage required the researchers to set aside past assumptions and knowledge about the phenomenon of interest, i.e. the internship learning experience. This required researchers to read the interview transcripts as fresh encounters, without layering our own personal views on the experiences described in the transcripts. In the second stage, each research participant's transcript was considered individually, and we constructed a complete description of the research participant's experience, encapsulated within a matrix that maps out all work activities, technologies used, achievements, challenges described and future work and study plans of the undergraduate research participant. The third stage of reduction required researchers to explore multiple ways of distilling all individual's description of their experiences to arrive at the central features. In particular for this paper, we focused on experiences described where research participants expressed their thoughts, feelings, sentiments through emotive speech indicators such as 'I thought', 'I realised', 'I think', 'I believed', 'it seems', 'I learnt', and we tried to define the themes that appeared in the accounts. Three researchers triangulated their reductions to confirm appropriate bracketing was maintained. In addition, we performed member checking with another research assistant to ensure that the identified themes resonated with the research participants' experiences.

## FINDINGS

To summarize the findings, accounts given by the interns in terms of learning at the workplace can be described under three headings pointing to salient themes explicated by the participants.

### 1. Materiality of work activities organises transactional workplace learning

In sociological and organizational accounts of internship learning, little attention is paid to what interns do or the actual work activities they engage in. The "what" of the activities and learning tends to be left out. However, when materials are understood as tools, technologies, actions, objects, text and discourses and even PowerPoint slides that shape the sociomaterial relations in work activities (Macpherson, Kofinas, Jones, & Thorpe, 2010), it is obvious that learning opportunities are embedded within the participatory processes mediated by technologies that make up the work activities. As an intern in media production, Nathan, reported:

I assist producers in their job and their role of putting out a video or a film. So what that entails is at the very basic level, hands and legs, packing the equipment, making sure that all the supplies are available, and then driving the van. . .buying food for meals, packing up and stuff like that, so that's the main role. And then now we're moving to a phase of doing AP work, which is assistant producer, so now we're looking at location, we're looking at casting, which is like getting in actors, so I meet these actors for casting, and I do the videos for them, stuff like that. So that's the main role (Nathan)

Media production as an object of learning is framed by the choice of casting talents, scripts, and the manner in which these are put into use. As the production period can take days or even weeks, it allows interns to work continuously on the subject of production, whether it is coordinating the time schedule of the talents, driving the production sets on site, arranging for crew members' lunch, setting up the dressing station on site or helping to chart the log sheets for



an audit trail of the production process. When the learner describes the series of work events within the organisation of media production, it is not without struggles as the intern was a “little bit depressed because of the amount of work given” and having to deal with the challenge of connecting individual-level performance with expected workplace practices. Yet this is the very essence of experience that Nathan was involved in. The element of “suffering” in its large sense where learners go through an “adventure” involving inquiry and where one does not know precisely how the end will turn out (Jornet, Roth, & Krange, 2016).

It is only after the difficult production period has come to an end that the experience can be clearly accounted for. This is saliently expressed by Nathan when asked to reflect on what were his biggest takeaways from the internship programme during the second interview:

Technical-wise was I think the thing that I gained the most, understanding the whole workflow of casting from start to finish. From getting the casting script to the director, engaging the producers. . . soft skills that I gained, from engaging the actors, and just that experience of doing the casting process again and again. Negotiating. And also the relationships that you build with the actors.

It is obvious that experiences of “understanding the work-flow of casting” have resulted in Nathan gaining “soft skills” that he considers vital for his future in this line of business. Similarly, in public relations the practice of media monitoring and coordinating information relevant for the daily running of the organisation was standard work activity as reported by most interns. Through this work activity, interns immersed themselves in market research using analytical software, Google search engines to aggregate and report market knowledge for their work teams. Media monitoring influenced the materials, methods and content necessary for generating reports up to industry standard. Together with the software and the given brief for generating market reports, the materiality of these workplace tools afforded interns increasing familiarity with a structured method of conducting searches, presenting information and scheduling reports for their supervisors.

Yet, within this seemingly structured work process there were obvious challenges resulting in problem solving and inquiry. In an exemplary case of Julian, assigned to the search team of an advertising consultancy firm, he had mentioned that a big task early on in his internship was to conduct and report through an Excel format, a key word search for “ninety-three categories for seven country markets” to drive a campaign for their advertising client. Unknown to Julian, this material-based work activity was in part constructing Julian as the “go to” person that proved instrumental in promoting his learning as articulated:

Search request come in from the brand manager, (who is) the account manager. So they will send by email, and then I think I’m more or less the go-to person within the team to do this already. So what will happen is that, it will be a Word document, with three main copies from the website; mainly the meta description, the brief description underneath the page title, and that’s the meta description. The page title, which is the link that you clicked on. And the editorial title, which is when you click on the link, the title (the copy that internet users see on screen). So these three things (copies) affect ranking, and that’s why they (colleagues from other teams) need Search (Julian’s team) to give suggestions on how to improve it. So based on certain criteria that I will type in, such as, suggestions such as, “consider using this word instead of this word for higher search volume”, in which case I will have to go onto the Keyword Tool to get that higher search volume, and then put it in to the suggestion. So (to) that brand manager, I send it back. So basically, what they do, I think the bigger picture is they will send it. They will have a rewrite that they need to do. So that webpage has an



article, and maybe the article needs to be rewritten. For example, recently for the coronavirus, they will send it to the creatives to rewrite the description copy. . . And then I think once they have that, they will then send it over to the Search team to get the search input. And then they will send it back to the client.

This quote documents how Julian, assuming the responsibilities of the role as a “go to” person, gains access to vital elements of the “economy of meaning” (Wenger, 1998) of the company. Within the complex organisation activity of servicing a client account, Julian’s role was to offer search term suggestions that can result in higher search volumes to his strategy team colleagues for consideration. These suggestions, when accepted by “the brand manager” of the brand team, cascades onwards to the “creatives” team for creating marketing collaterals for clients. Critically, Julian reveals as well through his written reflection about how his contributions are like “guacamole of a nachos dish”, where his interventions are consequential for drawing together colleagues from various other teams to effect change for their business clients.

This specificity of materiality for organisation of work activity and learning is also reflected by most interns when they directed researchers’ attention during the interviews to resources such as Tik-Tok videos, Instagram postings for events, written news articles, advisory posters and webinar links to events organised to demonstrate the products of their learning when asked to elaborate on their greatest achievements during the internship period. Just as the physicality of career resumés (or *curricula vitae*), written manuals, documentation make visible organisational, occupational phenomena (Robinson & Baum, 2020), the materials and workflow as described above are hence associated with the implements that distinguish the work of the intern.

Specifically for Julian, who learned how to manage the search requests of his team for specific local client accounts, he gained further opportunities to work alongside full-time colleagues to explore new business opportunities through creating more complex search algorithms to trawl the Internet for deepening search requests. As a result of his increasing technical knowledge of executing online searches, Julian moved on to “bigger projects”, made presentations to his “strategy team” and often received “constructive feedback” from team members.

Just as an experience involves a doing and undoing, Julian’s daily work task of doing search optimization related activities increasingly became more complex. Undoing previous less complicated attempts of search to create a yet more complex search with each iteration of work production, Julian was an agent directing his own workplace learning within the complex exigencies of work. Gaining the trust of the team, Julian was subsequently tasked to work on a regional-level project together with a few other colleagues during the last two months of his internship. While the project was complex, Julian recounted on how he relied on his increased analytic skills and knowledge of work processes from earlier projects to present a “very impressive” presentation during the regional meeting as mentioned by his hiring director who was also present during the meeting.

## 2. Networking for continuity of workplace learning

Locating the social in context, research informs interprofessional collaboration as providing deeper insights for understanding sociomaterial relations in work practices (Paananen, 2020). Specifically, internships are networking grounds offering interns opportunities to meet and work with stakeholders in specific industries for developing professional knowledge and skills (Behrendt, 2017; Mukeredzi, 2016). A part of the internship, as reported by our interviewees, is





actively searching for access to networking opportunities that are central and that allow them to learn and to play a significant role for the company. Assuming the role of an intern, implies seeking to understand the logic of the patterns of interactions of the community.

Critically, the examples in this section demonstrate how professional knowledge and workplace practices are encountered and appropriated through acts of communication co-constituting the relations between individuals. The following section explicates what happens when interns are placed in such networking spaces.

Networking was reported by interns as a means to manage expectations of supervisors and fellow colleagues in relation to the assigned workload. Nathan in media production highlighted the need for clarity of job roles, especially when social networks are loosely structured between interns and fellow colleagues within the organisation. Noticing expectations that differed between his direct supervisors and higher ranking producers, Nathan struggled to align their expectations with his own production of work. This in part contributed to the challenge of internship learning when loose relationships were consequential to achieving work goals together with colleagues which can lead to further learning opportunities for Nathan in the area of media production:

Either there is a disjunct between their expectation and their deliverable, I think some producers. . . I think the lack of communication between the producer and us, especially when we feel obligated to do work that we cannot deliver, or like they feel like we are under-delivering. Our supervisors are not the problem because they are very close to us. It is the other producers who don't have a personal relationship with us to such a great degree that often (they) find it challenging to manage us because they don't know us too well. And hence, it is not to treat them as an inaddressible superior, but rather as a colleague, a co-worker that you are trying to achieve a goal together with.

For many interns, networking was also a means for interns to pursue continuity of work albeit with more complexity. For example, Julian who was interning at an international advertising consultancy firm, mentioned during our first interview:

So right now, I am doing grunt work, with the exception of a few cases here and there. But the majority is very grunt work. Then maybe I will want to be more involved with, sort of the higher up planning sort of processes. So like, Mary and Joyce has a lot of, meetings with the Strategy and with the clients. I haven't been involved in that. I think I just need to sort of ask for it more. But I'm also trying to sort of get myself familiar with what I need to do first, and make sure I am on top of it first, before I can move on to that, yeah. But that is something that I will definitely, I intend to do in the future.

The excerpt above illustrates interns having to actively search for more work responsibilities in order to gain opportunities to learn how to gain access to more complex tasks. Hence, it is not surprising during the second interview, Julian revealed that through informal chats and listening in to meetings, he was given a more demanding job function through connecting with other teams within the firm:

During a meeting which I didn't even know was happening until like the full-timer told me about an upcoming meeting casually. . . So I ask if I could join them. Then he was like, sure of course. So that was the first time I actually talked to the other Data director. That was the very first project that we did revolving a dashboard. So that was the only interaction with them. Identity wise, sure I, I feel like I am under Strategy, but it's actually more of a hand-in-hand kind of relationship (with the data team). . . So now, I think when I first joined maybe (work) sort of (were) scattered over these small



stuff, here and there. Now it's Search related stuff, but more like bigger. . . tasks; cause there's one specific client that I am working on. And then another specific client that they are working on and then another client, so these are bigger projects now.

Similarly, as revealed by Raine who was interning in a local small-medium advertising consultancy firm, speaking with co-workers was a transactional means through which she was able to acquire challenging work tasks for broadening her learning of technical skills.

Diana (co-worker) was asking me and I mentioned I was not doing much but I want to really see what it's like. And then she started to give me more, more stuff. I think a lot of the full-timers have told us, they are very happy to give us work, but then sometimes they also don't know if we are free or not. So if we want to do a specific thing, like for example, we want to learn how to write press release, we can just go and ask them, like can I help you write this press release or something and then they will be very happy to like, let you help them, and recently, she asked me to help checkout an online platform which she is considering for distributing press releases to international media.

With loose networks, it is noted that interns may not be able to seek help conveniently. It is hence not surprising that interns had to take initiative for problem solving and this was commonly reflected in comments from interns describing themselves as “solving problems on their own”, “search Google for solutions and watch you-tube videos” to solve technical issues at work and “check the folders of previous work” as ways to complete their work tasks.

Importantly, when work tasks are completed and reported back to colleagues, interns receive more complex work tasks that draw them deeper into the work cycle of the organisation. This cyclical trajectory of searching for complex tasks and being given access to such activities are embedded within the networking between interns and their colleagues, and materiality play an important role. However, to learn work processes that are hidden, closer interaction with more experienced co-workers who can make these practices accessible is also required (Tynjälä, 2008). While most interns reported sitting in close proximity with other team members or their supervisors at the workplace, they had to “observe”, “read emails carefully”, “always turn to the back to ask my senior (personal mentor)” and “even shout out for work” to gain access to hidden work processes.

### 3. Repertoire of identities for enacting internship learning

Being an intern implies performing under dual identities of being a learner and a newcomer contributing as a member of the organisation. The reports below testify to the manner in which interns seek to enact their knowledge in order to learn further as their identities undergo change.

When struggling to complete assigned work activities, interns used descriptions and metaphors about “steep learning curves” that they needed to overcome. These undergraduate interns mentioned that they would apply group work techniques and presentation skills acquired in education for their internship work. For example, an intern mentioned that when tasked to prepare a deck of marketing slides for her “higher-up”, she followed “very systematic steps” learnt in school to outline marketing objectives for presentation her work to help her “higher ups understand better their (our) target audience”. Specifically, for interns in media production, who reported being nervous as interns at the beginning of their internship, often drew upon previous learning experiences with lighting equipment, camera usage and drafting call sheets for video production modules in school to “know what they (colleagues) are going to do, so as to know how to help them” for which without those knowledge, interns would be “lost”.



Being able to use the tools of the trade such as equipment, writing techniques, collaborative teamwork as knowledge acquired from school and applying in their work context were mentioned by most undergraduate interns as resources for enacting knowledge. Importantly, these tools simultaneously represent the duality of identities. Undergraduates become interns when enacting their knowledge about technologies, tools to work tasks, and simultaneously these tools positioned the interns as newcomers at the workplace participating in junior professional job roles. Where interns' perception of contributions to the workplace were contingent upon their ability to perform given job tasks, it also signals these interns viewing themselves less as undergraduates and more as young working adults—shaping their new identities as a professional in the workplace organisation.

Autonomy for creating an impact like a professional, was saliently expressed by an intern in a deep-tech firm where she mentioned about being given “free rein to find speakers for an event, decide on the logistics required, connect with start-up firms and government agencies” to organise a community engagement event. While the intern mentioned that “it was another steep learning curve”, this curve was different from the previous one where interns applied knowledge from school to the workplace, but instead were now actively learning “new skills that school does not teach” as mentioned. In the process, interns co-participate in work activities with colleagues through which they take a step closer to recognizing themselves as a collective part of the professional community. This is aptly summarized by Jenson:

I start to realise that the work is being seen by just too many people, it's going beyond just 'I'm submitting to Jane and that's it'. It doesn't end there. I guess in a way if I have to really pinpoint the change, it's this realisation and awareness that there is real significance in the kind of standard in the work I'm doing, or the kind of person who I am, in a way, because when clients meet us, when the media sees us, when third parties see us, it all impacts what they think of the agency and what they think of our team.

Through the sociomateriality of work that requires the intern to craft formal emails, conduct presentations, communicate with clients through meetings, organising events, interns viewed themselves as “more of an employee”, “a working lady” and certainly feeling “more capable because I (they) know how to troubleshoot problems”. What Jenson reports is the experience that “there is a real significance in the kind of standard in the kind of work I'm doing, or the kind of person who I am.” The “significance” of his work is that his actions are consequential for the “agency” in the public sphere. What he produces, shapes the image of the company. These observations confirm those of [Konkola, Tuomi-Gröhn, Lambert and Ludvigsen \(2007\)](#) that interns participate in the organisational terrain of work activities with dual identities of acting as students and working professionals.

Yet, there is an underlying tension. Interns wrestle with the collective identity of entrenching oneself within the patterns of work in the organisation and self as an intern learner along the inchoate internship trajectory. As mentioned by Nathan who continues to wrestle with his double identity as an intern concurrently with his increased capacity to function as an assistant producer:

I'm still an intern, but my capacity kind of increased, so it is more of like... I think I have an idea of what an assistant producer is supposed to do more, in the sense that a good assistant producer does things for their producer before the producer even asks for it... If you keep asking them what to do next, or if they give you something to do, and you keep checking back with them, you are not helping



the producer. You are adding more workload to the producer. So sometimes you must think what they need, and you just do it and you send it to them.

Here, Nathan reports on his conclusion that the proper work role of an assistant producer is to understand the process and to anticipate at each step what the needs of the producers are. Interventions on his part must follow on his initiative, and not by asking the producer at every step. Something similar is echoed by Jenson who is on his third undergraduate internship, expressing a desire to acquire occupational identity as a public relations executive.

I cannot understand why my manager came to the conclusion that interns deserve to only operate behind the executives. This is a huge alarm. . . work culture, you can't really expect too much flexibility or creativity in such big corporation when it is so hierarchical. So to me, the work still remains very engaging, very exciting, and I am still very into public relations as a career and as a future, but I think what I am exploring next I am looking to the final, final internship of my life and this would be at a much smaller scale agency.

The capacity and constrains for further action at the workplace, hence, come from the enmeshing of material affordances within the assemblage of work processes (Symon & Pritchard, 2015). As interns reflect on the accomplishment of work through their day-to-day actions at the organisations, the end of an experience also signalled a constrain upon their participatory learning efforts when interns indicate changes in disposition for initiating work at the workplace and questioning relevance of work tasks for their assignments. This is evident when Nathan mentioned that he gained increased knowledge about the workplace, but also reflected on his change of attitude for proactivity at the workplace. In the case of Jenson, it was only when the internship experience had run its course that he was able to map out his career orientation in concrete terms.

## DISCUSSION

The findings above articulate how sociomaterialities of workplaces are significant constituents of transactional learning experiences. As newcomers entering the field of work, materiality of technologies afforded the undergraduate interns infrastructure to engage in workplace activities to learn about the work of professionals. Technological infrastructure in the physicality of media production equipment, digital software, search engines and digital communication tools entangled with interns' knowledge on how to use these tools for accomplishing work tasks mediate significant features of the organisation of work routines. While these technologies and knowledge may seem invisible and taken for granted as interns use them for solving work problems, it formed the backdrop for them to engage actively in work tasks to subsequently "see the bigger picture" to "understand the whole workflow" as mentioned by Nathan above. Importantly, digital tools at the workplace were no benign objects but purpose laden and functioned as a mode of language for interns to communicate their intentions for completing or coping with assigned job roles. Learning about the logic of work as interns acted upon the technologies for work production, the transaction resulted in learning opportunities for interns. These opportunities are in relation to engagement with more complex work situations along a learning trajectory where interns develop competence to be part of the professional community.



Within the interplay between technological tools usage and work processes is a social network of co-workers ordering the learning of the interns. Loose connections forged between interns and colleagues are mobilized by interns for managing work expectations, gaining opportunities to engage in more complex work tasks as well as to increase technical skills. This relational dimension emerges as work events unfold, ultimately transforming the interns' position with respect to the larger work environment.

With digital tools intimately bounded to assigned workplace tasks constructing a repertoire of identities for the learners, the result is a mangle of human and material agencies (Pickering, Guzik, Smith, Weintraub, & Franklin, 2009) constituting the learning experience of the intern. Interns gained opportunities to work alongside full-time professional teams as they are weaved into a relational space with workplace colleagues and double weaved into the context and materiality of scaffolded workplace activities. Through production of work for the organisation, beginning with making an experience out of basic work tasks such as media monitoring, media production, generating reports, organising events, interns take out from these streams of activities learning episodes for gaining work experience in the forms of knowledge of work processes, communication skills and agency for directing self at the workplace (Pickering et al., 2009; Suchman & Suchman, 2007).

Importantly, as interns revised their understandings of work tasks, devised solutions and ways of working during their internship, the back and forth of material and social interactional elements entangled in these workplace encounters structured their learning. Within these messy learning episodes is a relatively disciplined performance of workplace practices by early entrants of the workforce—interns. They become an insider of the industry over time in the organisation and this is evident from the recognition interns received from colleagues as well as their involvement in project handover to the next batch of interns, and for some interns, receiving job offers from the host organization.

Our discussion above highlights negotiation of identities for work production as interns cross between academic institution and the workplace organisation. When positioned at the workplace, learning as an activity rise above academic assignments to become work encounters having a stake in business organisation deliverables. Further complicating the learning process are variations in structures of internship dependent on the abstract nature and type of business organisations. The quality of learning during these internships are marked differently from more traditional domains of internship in medicine and teacher training where internships are a requisite part of the professional training certification. Careful considerations are therefore needed from organisational and academic institutions to shape internship of communications undergraduates as more than application of theoretical knowledge to become learning experiences for career development.

Our work has at least two implications for practice. First, much research suggests forging closer links between universities and workplace organisations to support learning during internship. To do that, our work suggests the nature and specifics of digital competences may be a good starting point for closer collaboration between these organisations for supporting the transition of learners from school to work. Foregrounding the affordances of digital tools used in school and the workplace can offer a practical springboard for considering how to better prepare learners for the workplace. Second, learning agreements in the format of learning objectives, work duties, academic assignments for reflecting on internship learning as a key way to facilitate understand of expectations of each stakeholder (Sauder et al., 2019) can benefit from additional



conversations between workplace organisation and the interns. Specifically, learning objectives can be jointly crafted by interns and organisations to imbue within the interns a greater sense of self-directed learning. Similarly, conversations between faculty mentors of interns and workplace organisations can focus on co-development of assessment rubrics for internship learning to lay the foundations for assessing an authentic learning experience contextualized at the workplace.

Finally, professional learning is a dynamic process as reflected by the learning experiences of interns when engaging with sociomaterial resources. Learning is best regarded as a work in progress, as a kind of “becoming” (DeRobertis, 2017), even as our research participants report success in their internships through showcasing the projects they were engaged in, describing the productive collegial interactions afforded by their workplace, and even declaring how they have developed confidence about their own abilities to become more like a “professional”, “working lady”. These perspectives as indicators of changing perspectives of self can be useful for learners to appreciate, especially when differences related to different learning environments influence identity construction (Petriglieri & Stein, 2012). However, these perspectives can also indicate constraints for internship learning. As the learners argued above move towards the end of their internship, their job tasks diminished in scale and scope which simultaneously offered less opportunities for them to be further integrated into the organisation. Interns hence functioned once again more like undergraduates gazing at the evolving complexity of work at the organisation as their work commitments reduced at the workplace. Hence, academic institutions planning to prepare learners for the working world could first identify multiple learning environments for undergraduates to experience work. Faculty members can support internship learning by paying attention to not just the specifics of task accomplishment but also how work tasks are talked into being during conversations with interns. As discourse shapes reality (Potter, 1996), faculty members can take timely action to support interns who may be describing distress experienced through work. All indicators, including the body language of interns may serve as indicators of relationships with organisational supervisors. Such indicators are important to note. Close examination of the types of workplace interactions and relationships as reported by interns during workplace visits can help faculty members gain deeper insights for further intervention for assessing students’ workplace learning.

## CONCLUSION

The aim of this article was to understand internship learning as a transactional experience and the role that sociomateriality plays when enacting knowledge. To this end, we make a theoretical contribution to the literature on transformative learning experience by embedding a dimension of sociomaterial to reveal the ‘how’ of experience. By extending extant understandings of learning experience that privilege human agency to incorporate the materiality of situated learning environment (Brown, 2019), we reveal how material and human agency are mutually implicated in developing repertoires of identity. Uncovering key affordances of digital technologies and interactions at the workplace will have implications on instructional practices. More importantly, this is a challenge for research on education and work. We need to untangle the relationships of school and work that are integral for learning and weave them into practical instructional practices for our learners facing a post-pandemic VUCA world (Brown, 2019).



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