Making the Production of Learning at Scale more Open and Flexible

How to cite:

Papathoma, Tina; Ferguson, Rebecca; Littlejohn, Allison and Coe, Angela (2016). Making the Production of Learning at Scale more Open and Flexible. In: L@S ’16: Proceedings of the Third ACM Conference on Learning @ Scale, ACM, pp. 273–276.

For guidance on citations see FAQs

© [not recorded]
Version: Accepted Manuscript
Link(s) to article on publisher’s website:
http://dx.doi.org/doi:10.1145/2876034.2893432

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Making the production of learning at scale more open and flexible

Abstract

Professional learning is a critical component of the ongoing improvement, innovation and adoption of new practices that support learning at scale. In this context, educators must learn how to apply digital technologies and work effectively in digital networks. This study examines how higher education professionals adapted their practice to enable more open and flexible work processes. A case study carried out using Activity Theory showed that teams involved in the development of a module all need access to a range of expertise both practical and academic. At each stage, they need to be clear about the learning outcomes of the module, the responsibilities of each team and its constraints. Teams need to be willing to agree ways to shift those constraints in order to develop a module effectively.

Author Keywords

Online Courses; Professional Learning; Activity Theory; Innovation; Case Study

ACM Classification Keywords

Management

Background

The rapid changes in society and working life that have taken place during the past few decades have increased interest in workplace learning and made lifelong
Table 1. Roles of the community

<table>
<thead>
<tr>
<th>Community</th>
<th>Roles</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 'Academic' members</td>
<td>Writing module content</td>
</tr>
<tr>
<td>(Module team)</td>
<td></td>
</tr>
<tr>
<td>1 Module Chair</td>
<td>Guiding academics &amp; liaising with LTS</td>
</tr>
<tr>
<td>(Module team)</td>
<td></td>
</tr>
<tr>
<td>1 Curriculum manager</td>
<td>Project management of academics, liaising with LTS</td>
</tr>
<tr>
<td>(Module team)</td>
<td></td>
</tr>
<tr>
<td>4 'Learning and Teaching</td>
<td>Implementing innovative ways of supporting module</td>
</tr>
<tr>
<td>Solutions’ (LTS) members</td>
<td>production</td>
</tr>
<tr>
<td>3 Management members</td>
<td>Ensuring everyone remains on schedule</td>
</tr>
</tbody>
</table>
emergent motives of the community. Such differing motives produce tensions in the activity system [5].

The components and relationships of the activity system represent the situation in which members (subjects i.e. the module team) work on an object (i.e. module production) or problem space, transforming it into an outcome (i.e. change of professional practice) using tools (i.e. open platform). The tool-mediated action may be constrained or enabled by implicit and explicit rules (i.e. university regulations and faculty guidelines related to university standards) and the broader social context (community i.e. the teams represented in Table 1) within which the activity takes place. Labour (i.e. the tasks of the module team) is divided among the community members (roles).

**Sample**
As shown in Table 1, the module team of this study consisted of the Academics, the Module Chair and the Curriculum manager. The focus is on this team because the module team, and especially the academics within it, had taken more central roles in the module production and this changed the activity of the system and the motives not only of the module team but also of the rest of the community.

Three groups (academics, management, ‘Learning and Teaching Solutions’ group) and two individuals – the Module Chair (lead academic) and Curriculum Manager – made up different sections of the Activity Systems’ community and were interviewed in order to identify the changes in the motives of each team in their setting. There was a focus on how action is mediated with the use of new tools. The study followed the ethical guidelines of the British Educational Research Association (BERA).

**Analysis**
Thematic analysis [6] was used to identify the components and relationships of the ‘activity system’ community. The transcribed text of interviews was coded using codes from the activity system – object, tools, rules and division of labour. Emergent themes were added to these, including ‘roles’ of the community (subtly related to division of labour) and ‘tensions’ between roles and rules of the activity system. NVivo was used to study how interviewees talked about the changes in practice associated with the new models of production, with an emphasis on aspects that enabled or hindered these changes.

This analysis revealed changes in professional practice between conventional module development (past) and the new process (present). These are summarised in Table 2. Enablers and barriers to changes in practice are summarised in Table 3.

**Discussion**
The change of practice was an evolutionary process for the module team. It gave them opportunities to learn on the job, rather than through formal training, and to gain skills quickly.

The study provided insights into improved practices that could be used by teams developing learning at scale using new tools and approaches. Meeting new challenges helped community members to develop collaborative skills. The open platform that the teams used, provoked tensions between the Academic grouping and the LTS grouping, because historically

<table>
<thead>
<tr>
<th>Past</th>
<th>Present</th>
</tr>
</thead>
<tbody>
<tr>
<td>Linear, Asynchronous, Fragmented, Individual process</td>
<td>Dynamic, Synchronous, Transparent, Collaborative process</td>
</tr>
<tr>
<td>Limited view of module development</td>
<td>Holistic view</td>
</tr>
<tr>
<td>Ideas forgotten</td>
<td>Ideas captured</td>
</tr>
<tr>
<td>Deadlines lost</td>
<td>Work grows dynamically</td>
</tr>
<tr>
<td>Academics were more passive</td>
<td>Academics were active</td>
</tr>
<tr>
<td>Management found process difficult to monitor</td>
<td>Management could monitor the process more easily</td>
</tr>
</tbody>
</table>

**Table 2. Changes in Practice**
LTS had had more control of the final product than the Academics and the new roles on the platform were not clearly defined.

Using the terms of activity theory, the study found that a community needs to have access to a range of expertise associated with the object in order to reach the outcome. The outcome, the division of labour and the rules should all be clearly defined. The community needs to be prepared to change or amend the rules during the activity in order to reach an effective outcome.

In other words, teams contributing to the development of a course or module need to have access to a variety of practical and academic expertise. They should also be clear about the learning goals of the module, the responsibilities of each team, and its constraints. Teams need to work together on ways to deal with constraints in order to reach an effective outcome. This is challenging, because practices involving huge systems, structured to deal with large numbers of learners and educators take time to change.

**Conclusion**

Higher education is changing as it increasingly uses digital technologies to provide courses and therefore professionals in this area need to change their practice. This initial exploratory case study provides insights that can benefit teams who need to change their practice and work more flexibly in order to develop learning at scale. In particular, it identifies a need to define and make clear to everyone the intended outcome of module development, the division of labour and the constraints on the process. The findings of the study will inform further research into learning at scale and the ways in which large numbers of people can collaborate to create online courses and shift their practice from a face-to-face to an online environment.

**Acknowledgments**

We thank Doug Clow who provided helpful comments on versions of this document. We also thank Sam Smidt, Anne Jelfs, Sarah Bridgman and all the interviewees.

**References**


