LA Policy: Developing an Institutional Policy for Learning Analytics using the RAPID Outcome Mapping Approach

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ABSTRACT

This workshop aims to promote strategic planning for learning analytics in higher education through developing institutional policies. While adoption of learning analytics is predominantly seen in small-scale and bottom-up patterns, it is believed that a systemic implementation can bring the widest impact to the education system and lasting benefits to learners. However, the success of it highly depends on the adopted strategy that meets the needs of various stakeholders and systematically pushes the institution towards achieving its targets. It is imperative to develop a learning analytics policy that ensures a practice that is valid, effective and ethical.

The workshop involves two components. The first component includes a set of presentations about the state of learning analytics in higher education, drawing on results from an Australian and a European project examining institutional learning analytics policy and adoption processes. The second component is an interactive session where participants are encouraged to share their motivations for adopting learning analytics and the diversity of challenges they perceive impede analytics adoption in their institution. Using the RAPID Outcome Mapping Approach (ROMA), participants will create a draft policy that articulates how the various challenges can be addressed. This workshop aims to further develop our understanding of how learning analytics operates in an organizational system and promote a cultural change in how such analytics are adopted in higher education.

CSS Concepts

•**Applied computing → Education;** •**Security and privacy → Human and societal aspects of security and privacy**

Keywords

Learning analytics; policy; higher education

1. INTRODUCTION

Studies show that there is generally a lack of practical guidance for the adoption of learning analytics in higher education institutions [2]. A recent survey conducted by Heads of e-Learning Forum in the UK shows that only five out of fifty-three

institutional respondents follow a code of practice[1] to guide their learning analytics implementation process [5]. In a review of the adoption of learning analytics in ten universities across USA, Australia and UK, Siemens and others found that only a few universities have started strategic planning for learning analytics deployment despite that significant data collection activities had existed in education systems for long [1, 6]. They identified that learning analytics was often found in small scale or bottom up developments, which tended to lack systematic development and planning process. The lack of policies that address both legislative and non-legislative issues about the implementation of learning analytics in the higher education sector was also identified in a systematic literature review conducted by researchers of the European Commission funded research project – SHEILA[2]. The bibliographic research of all publications rendered only eight codes of practices across Europe and Australia, of which four were developed within and for specific universities. This number indicates a gap of holistic planning that can ensure the practice of learning analytics to be valid, ethical, effective and sustainable.

The capacity to bring about change in higher education institutions where complex and anarchic adaptive systems exist has been described as a 'wicked problem' [4]. Macfadyen and others noted that educational systems tend to be stable and resistant to change due to a range of political, social, cultural and technical norms. Nevertheless, they argued that higher education institutions must implement planning processes for learning analytics so that stakeholders can easily align the need for change with institutional goals and priorities. In response to the flexible and constantly-changing social and institutional contexts, Macfadyen and colleagues suggest that an adapted version of the RAPID Outcome Mapping Approach (ROMA) approach can guide and ultimately lead towards systemic institutional change that is enabled through learning analytics.

The ROMA model was originally designed to support policy and strategy process in the field of international development (Figure 1) [7]. The approach consists of an iterative cycle of seven steps that can be adopted to consider the complexity of institutional contexts in which factors of people, political structures, data infrastructures, and institutional capabilities all have mutual influence on each other and on the success of achieving the objectives of learning analytics.

ROMA targets at bringing about evidence-based change to

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[1] In this workshop, we use 'policy' and 'code of practice' interchangeably, and both terms refer to a set of guidance that addresses both legislative and non-legislative issues.

[2] http://sheilaproject.eu/

institutions and a reflective culture in the progress of implementation in which there is flexibility to adjust the strategy when new evidence emerges. This approach is believed to have the potential to maximize success of learning analytics in institution-wide implementation [2]. As there is no one-size-fits-all policy for educational change and learning analytics [3], it is encouraged that every higher education institution should develop a learning analytics policy that considers its specific context and addresses challenges wherein. Therefore, we propose a half-day workshop to initiate conversations among scholars, practitioners, and institutional senior leaders about policy and the state of learning analytics in the higher education sector. In addition, there will be an opportunity to create a draft of policy using ROMA.
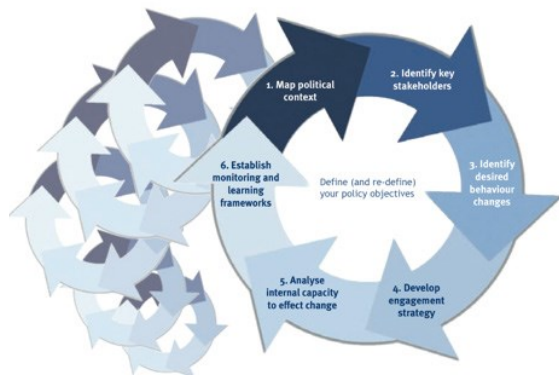
Figure 1. RAPID Outcome Mapping Approach (ROMA) [4]

This workshop falls in the topic of 'meta-issues' for LAK'17 with considerations for ethics and law, adoption, and scalability. It will contribute to a cultural change in the implementation of learning analytics by raising the awareness of strategic planning and giving step-by-step guidance to composing a policy.

2. WORKSHOP OBJECTIVES
The workshop has three main objectives, including

- bringing broader understanding of the state of learning analytics adoption in higher education;
- initiating conversations about challenges in the implementation of learning analytics; and
- addressing the above challenges within policies drafted by participants with guidance and support from the workshop initiators and other participants.

3. TARGET GROUP
The target group is primarily policy makers of learning analytics, senior management at higher education institutions, learning analytics practitioners and researchers. The workshop also welcomes stakeholders that are involved in the working team for the planning and implementation process, such as project leaders, data protection and system officers, Information and Technology officers, academics and student representatives.

4. FORMAT
This half-day workshop will begin with presentations from two research teams (the European SHEILA and Australian[3] projects) about findings from main activities: literature review (including examples of concrete institutional policies), interviews with institutional senior leaders, surveys with a large sample of

European institutions, and two group concept mapping studies with learning analytics expert and policy maker groups. The presentations will cover the following themes: stages of implementation in higher education institutions, the success claimed to date, challenges identified in the process, and elements identified as essential for a higher education institution's learning analytics policy.

Following the presentations, there will be a discussion time for the participants to share about the motivations to adopt learning analytics in their institutions and challenges that they face in the planning and implementation process.

After the coffee break, the workshop initiators will demonstrate how to draft a learning analytics policy using the ROMA model, with evidence drawn upon their research findings. Afterwards, the participants, in small groups, will draft a policy that considers the specific contexts of their institutions and the challenges that they have identified in the first part of the workshop. The workshop will conclude with plenary discussions about the products that participants create and practicalities about introducing the policy to their institutions.

5. ACKNOWLEDGMENTS

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[3] http://he-analytics.com/au/