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Developing an evidence-based institutional learning analytics policy

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ABSTRACT: This workshop aims to support higher education institutions to develop learning analytics (LA) policies that are both context-based and evidence-based. The proposed workshop will comprise of two sessions. The first session will include a number of presentations that introduce the SHEILA policy framework developed by a cross-European project and the research findings that have informed this framework. The second session will invite participants to take part in small groups to reflect on the state of LA adoption in their institutional contexts, and to use the SHEILA policy framework to draft an institutional policy that considers key action points for LA adoption and addresses identified challenges. The contribution of the workshop will be to increase the scalability and sustainability of LA through policy development.

Keywords: policy, learning analytics, higher education, strategy, ethics and privacy

1 INTRODUCTION

For a number of years now, educational institutions have been collecting, storing and analysing the data traces that students and teachers produce and leave behind during interactions with virtual learning environments and other digitally traceable systems. The results of these analyses can be fed back to the learners, teachers and institutional management to inform decisions about learning and teaching, thereby completing the four-step learning analytics (LA) cycle: generating data, analysing data, feeding data to learners, and activating interventions (Clow, 2012).

While data is described as “the lifeblood for decision-making” by the United Nations (UN Independent Expert Advisory Group, 2014, p.2), and the interest in using data to devise interventions to improve outputs and outcomes in higher education is considered to be “at an all-time high” (Desouza & Smith, 2016), Ferguson and others (2016) pointed out that the potential of LA, as it has been identified by research, has not been achieved so far due to various barriers. Among the challenges that inhibited the maturity of LA adoption, the lack of practical guidance (Colvin et al., 2015; Ferguson et al., 2014) and insufficient involvement of coordinated leadership (Arroway, Morgan, O’Keefe, & Yanosky, 2016; Siemens, Dawson, & Lynch, 2013; Tsai & Gašević, 2017a) have

been highlighted repeatedly in the literature. In light of this, Ferguson and colleagues (2016) made a suggestion for European policy that “a careful build-up of research and experimentation, with both practice and policies that have a unified European vision” is needed (p.10). Specifically, Tsai and Gasevic (2017a) advocated for the development of institutional LA policies that have considered an individual institution’s own cultural, economic, political and technical contexts, so as to ensure the soundness, effectiveness and legitimacy of LA implementations.

In order to leverage strategic planning to scale up the adoption of LA, Ferguson et al. (2014) and Macfadyen et al. (2014) applied and adapted the RAPID Outcome Mapping Approach (ROMA) to learning analytics contexts. The ROMA model was originally designed by the ODI (Overseas Development Institute) to support policy and strategy processes in the field of international development (Young & Mendizabal, 2009). The model begins by defining an overarching policy objective, followed by six steps designed to provide policy makers with context-based information: 1) map political context, 2) identify key stakeholders, 3) identify desired behaviour changes, 4) develop engagement strategy, 5) analyse internal capacity to effect change, and 6) establish monitoring and learning framework. It is designed to be used iteratively rather than linearly.

The ROMA model has also been adopted by a cross-European project – SHEILA (Supporting Higher Education to Integrate Learning Analytics) – to scaffold their analysis of the adoption of LA among 51 HEIs in Europe (Tsai & Gašević, 2017b). The SHEILA policy framework was developed using this approach. The SHEILA project team adapted and extended ROMA by incorporating three key elements – action points, potential challenges, and policy prompts, based on the data collected from direct engagement with various stakeholders. Figure 1 explains the concept and structure of the SHEILA policy framework.

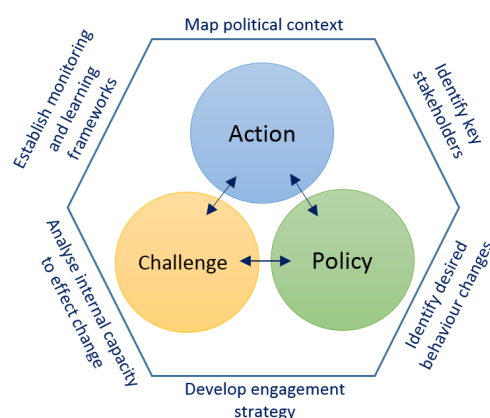


Figure 1: SHEILA policy framework structure

The goal of this workshop is to use the SHEILA policy framework to guide participants to develop a policy draft to increase the scalability and sustainability of LA in their institutions. The workshop is relevant to the meta-issues of the conference – ethics and law, adoption, and scalability. In particular, the workshop will reflect on the needs of different stakeholders and their concerns regarding LA. This is of particular relevance to LAK’18’s focus on engaging stakeholders in the design,

deployment and assessment of learning analytics. The SHEILA project team held a similar workshop at LAK'17 where they presented findings of their consultations with LA experts and institutional leaders/ decision makers, and guided participants to develop a policy draft using the ROMA model. This year, we will present findings of our consultations with primary stakeholders – teachers and students. We will also showcase the SHEILA policy framework and guide participants to apply it for policy development step by step.

2 WORKSHOP PROGRAMME AND OBJECTIVES

The half-day workshop will be open to anyone interested in institutional policy and strategic planning for LA, particularly those in the following roles in their institutions: policy makers, senior managers and decision makers, LA practitioners and researchers, LA project leaders, data protection and system officers, Information and Technology officers, and academic and student representatives.

The workshop will consist of two primary activities – presentations and discussion groups. In the first part of the workshop (1.5h), we will present findings of surveys and focus groups that have been administered to teaching staff and students in four higher education institutions in Europe with a view to understand primary stakeholders' expectations and concerns regarding LA. The first session will also include the presentation of the SHEILA policy framework. The second component of the workshop (1.5h) will engage participants with discussions around the state of adoption of LA in their own institutional contexts, and required policies to ensure effective and responsible implementation. The workshop initiators will use the SHEILA policy framework to guide the discussion process.

The expected number of participants is 30, and the event will be advertised on Twitter, the SHEILA project website (<http://sheilaproject.eu/>), through the LACE network, and numerous mailing lists. The activities do not require specific equipment besides standard AV.

The goal of this workshop is to assist with the process of developing an institutional policy for the use of LA. There are two main objectives:

- 1) Participants will discuss and critically reflect on the key action points to take in a systematic adoption of LA, and gain understanding of the potential challenges.
- 2) Participants will be able to use the SHEILA policy framework to develop a draft of an institutional LA policy that considers LA-related actions and challenges in their institutional contexts.

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