Learning Analytics and Policy (LAP) – international aspirations, achievements and constraints

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ABSTRACT

The Learning Analytics and Policy (LAP) workshop explores and documents the ways in which policies at national and regional level are shaping the development of learning analytics. It brings together representatives from around the world who report on the circumstances in their own country. The workshop is preceded by an information gathering phase, and followed by the authoring of a report. The aspirations, achievements and constraints in the different countries are contrasted and documented, providing a valuable resource for the future development of learning analytics.

CCS Concepts

• Social and professional topics~Privacy policies • Social and professional topics~Government technology policy

Keywords

Learning analytics, policy, privacy, data protection, open data.

1. BACKGROUND TO THE WORKSHOP

Institutional readiness for analytics, has been studied by, for example the DELTA model from Davenport et al. [1], the work of Jisc, including Sclater et al. [2], Educause, including Oster et al. [3], and the OLT in Australia [4]. Such work provides valuable insight into the scaling up learning analytics. However, the capability of institutions to implement and leverage learning analytics systems is determined not only by their internal conditions and dynamics, but also by the policies and degree of development of the education system and policy environment of the state in which they find themselves. Moreover, the state does not only create constraints on the institution, but also actively intervenes in establishing the terms of reference and internal dynamics of the institution. The importance of these factors was recognized by Pea and Jacks, who proposed as one of their milestones for measuring progress in building the field of analytics "Changes in policy related to data privacy and data sharing for education, corporations" [5, p.64]. To address these policy issues, we must "delve into the socio-technical sphere", as recommended by Macfadyen and Dawson [6, p.161].

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Several US federal government laws determine the way that learning analytics can develop [7, p.20], and "State policies play a significant role in the move toward learning analytics" [7, p.23]. The LACE project (www.laceproject.eu) has shown that while there is consensus on the importance of policy, there is no agreement on what the ideal policies are, particularly with regard to fair and ethical use of data [8, p.12], [9, p.21-23]. The LAP workshop builds on LACE in surveying the national and regional policies which impinge on learning analytics in some key countries where learning analytics has become established, and undertakes a comparative analysis of the effects of these varying environments on the development of applications of learning analytics.

This topic is of relevant to the meta-issues raised by LAK17, including Ethics and Law, Adoption and Scalability. Developments in these areas cannot be understood without knowledge of the various policies that enable and constrain progress. The Workshop contributes to the research field by documenting relevant policies across the globe, and theorizing their consequences. This provides input for research which seeks to understand the successes and failures of LA, and provide valuable input for countries which are currently starting to implement LA.

2. OBJECTIVES OF THE WORKSHOP

The objective of the workshop is to explore and document the ways in which policies at national and regional level are shaping the development of learning analytics. The scope includes policies which are explicitly focused on learning analytics, policies which regulate the use of data, and policies for the use of data in education. The enquiry is focused on three aspects:

a) Aspirations. What do the policy creating bodies in each country seek to achieve through the use of learning analytics? This includes related policies, such as data protection and privacy, which may not be labelled with the term 'learning analytics'.

b) Achievements. To what extent can it be claimed that the policy environment has led to increased or more effective use or preparation to use of learning analytics?

c) Constraints. What are the factors which are preventing the fulfillment of policies for learning analytics?

3. OUTCOMES

3.1 Knowledge Sharing

The policy environment for learning analytics is an immediate reality for researchers and practitioners in an individual country, but they are often unaware of the conditions in other countries. Sharing this knowledge in LAK improves participants' ability to engage in the policy debates in their own country. Moreover, the examples of achievements and constraints provides a detailed view of responses to policy for the wider community, and material for reflection on relationship between policy and practice in participants' own operating environment.

3.2 Synthesis Report

Following the workshop, a report will be prepared synthesizing the relationship between policy, infrastructure development and application of learning analytics around the world. It will identify key variables between countries, and examine how they affect the aspirations, achievements and constraints which are observed. Examples include technical and organizational infrastructure, legal frameworks, educational institutions and culture, acceptability to practitioners, state investment, the role of commercial players, etc. The report will develop understanding within the LAK community of the relationship between policy and learning analytics.

4. PROCESS

To achieve these outcomes, it is not sufficient to gather participants from around the world for a discussion. Rather, the workshop itself is the centerpiece of an extended set of activities, and is preceded by a data collection phase. This involves establishment of common ground on the scope of the enquiry, the specification of the material to be gathered by participants, and the pooling and pre-processing of data in preparation for the workshop. The outcomes of this phase are statements about the policy environment in each participating country in a standard format, which are shared before the workshop and are required reading for participants.

At the workshop itself, the participants consider the implications of the data that has been gathered, and the emerging open questions. In addition to setting out the prescribed procedures, timetables and restrictions, the social mechanisms at work are analyzed. This discussion is documented, summarizing the data gathered, and the conclusions of the workshop presented in a synthesis report for publication. In the light of the workshop report, a journal paper will be authored by the workshop participants. This will address the open questions established at the workshop, through an online discussion and collaborative authoring process. A complex picture is expected to emerge, with the interaction of different policies, implementations, and professional and economic interest groups. To provide a framework for discussion and analysis, this landscape can be characterized as a policy network, i.e. a set of "formal institutional and informal linkages between governmental and other actors structured around shared if endlessly negotiated beliefs and interests in public policymaking and implementation." [10, p.424]. This approach has been widely applied in policy analysis, including in areas with conflicting social and technological interests, such as software patents (see [11]).

5. PARTICIPATION

In order to maintain a strong focus and commitment, the workshop is by invitation and application, and all participants are required to participate in preparatory activities. The scope includes both government departments and other agencies and organizations, such as DISC (with an international remit), Jisc (UK), Educause (USA), KERIS (Korea), NCET (China), etc. The authors cover North America, Europe, and Asia, and will invite participants from their own areas. Four authors are members of LACE, which worked extensively on standards (see for example [12]) and ethical aspects of learning analytics. This extensive community of researchers and practitioners is the principal source of participants.

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