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LAK Failathon

Doug Clow^{1*}, Rebecca Ferguson¹, Leah Macfadyen², Paul Prinsloo³

¹The Open University
Walton Hall, Milton Keynes
MK7 6AA, UK
Firstname.Surname@open.ac.uk

²The University of British Columbia,
Faculty of Arts,
1866 Main Mall,
Vancouver, BC, V6T 1Z1
leah.macfadyen@ubc.ca

³University of South Africa
3-15, Club 1, PO Box 392, Unisa
0003, South Africa
prinsp@unisa.ac.za

ABSTRACT

As in many fields, most papers in the learning analytics literature report success or, at least, read as if they are reporting success. This is almost certainly not because learning analytics research and activity are always successful. Generally, we report our successes widely, but keep our failures to ourselves. As Bismarck is alleged to have said: it is wise to learn from the mistakes of others. This workshop offers an opportunity for researchers and practitioners to share their failures in a lower-stakes environment, to help them learn from each other's mistakes.

Categories and Subject Descriptors

K.3.1 [Computers and Education]: Computer Uses in Education.

General Terms

Management, Human Factors.

Keywords

Failure, Publication bias, Positive results, Negative results.

1. MOTIVATION AND OBJECTIVES

1.1 The learning analytics literature is biased

Publication bias is a well-known problem in many empirical disciplines, notably health and medicine. This is sometimes called the 'file drawer' effect. Researchers are incentivized to analyse their data to find positive results; positive results are more likely to be written up; and positive results are more likely to be accepted as publications. Negative results are more likely to languish, unloved, in file drawers.

The EU-funded Learning Analytics Community Exchange (LACE) project¹ is building an Evidence Hub for learning analytics. The LACE Evidence Hub focuses on evidence for and against a set of key propositions about learning analytics. Evidence presented on the site is categorised according to whether it supports or detracts from a particular proposition.

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Preliminary results suggest that learning analytics is no exception to the general trend: more than half the evidence in the Hub is classified as positive, and most of the rest is neutral or mixed. (A full account of this work is in preparation.)

Anecdotally, we know that not all learning analytics research yields positive results, and that the majority of large-scale projects encounter at least some serious problems. There are a few examples of these issues being reported in the learning analytics literature, such as Dawson & Macfadyen's paper [1], but such reports remain unusual.

Further, publication bias is a problem for well-conducted studies. Very few outlets exist for those who want to publish accounts of studies that failed to generate interpretable results because of mistakes by the researchers.

Similar considerations apply to projects and activities applying learning analytics: successful work is given far more prominence than failure.

In summary, we tend to publicise our successes, and keep our failures to ourselves.

1.2 This prevents effective learning within the community

The printed literature enables us to learn of and from success. Failure can be an extremely rich source of learning. Indeed, some learning theories make explicit use of mistakes and failures in the learning process.

Learning from one's own mistakes can be a very powerful source of expertise. However, it is more efficient – and less unpleasant – to learn from other people's mistakes too. But this is difficult without access to information about failure.

1.3 Strong pressures keep it that way

Why is it like this?

The incentives that contribute to publication bias are considerable, and hard to change. In the medical field, there are moves such as requiring pre-registration of trials and protocols, but the evidence that these solve the problem is limited to date. Some journals now explicitly welcome negative results, and some devoted purely to negative results have sprung up.

However, the human pressure to publicise success but downplay failure is likely to persist. Organisational pressures on researchers and practitioners seem likely to increase.

1.4 A failure workshop can help

Such powerful social and systemic forces cannot be changed quickly or easily.

However, there are opportunities for learning from each other's failures outside formal routes. The social spaces at LAK provide informal opportunities for sharing these sorts of experience.

This workshop aims to offer a more explicit and structured space for this to happen. We hope to create a space where researchers and practitioners can learn from each other's mistakes.

Many teachers will be familiar with learners being reluctant to admit mistakes in public. This is one major rationale for the existence of closed discussion forums (Learning Management Systems/Virtual Learning Environments) in education: if the discussion is entirely open to the world, learners may be too reticent about failure to contribute. For this reason, this workshop will be semi-private, held under the Chatham House Rule (see below).

2. TARGET GROUP

This workshop is targeted at all researchers and practitioners in learning analytics who are interested in learning from other people's failures, *and* are willing to share their own experience of failure in the workshop.

No specific preparation is required, but participants will need to be ready to talk about their own mistakes, and respect the confidentiality of the session.

3. FORMAT

This will be a half-day workshop.

In the first session, there will be a series of presentations from the organisers and other experienced learning analytics practitioners (see below), who will present accounts of their own failures, with time for discussion. After the coffee break, participants will discuss their own failures in small groups, reporting summary feedback to a short final plenary session.

To encourage free and frank discussion, the meeting will be held under the Chatham House Rule:

"When a meeting, or part thereof, is held under the Chatham House Rule, participants are free to use the information received, but neither the identity nor the affiliation of the speaker(s), nor that of any other participant, may be revealed."²

Thus, participants can talk about or publish or act on what they hear from other participants, but may not say who said it or what organization or project it referred to. For the avoidance of doubt, this applies to social media use as well: it is fine to tweet interesting or amusing anecdotes, but not to attribute them (directly or by implication) to either the person, the project, or the organization.

4. ORGANISERS & PRESENTERS

This workshop is organized by the EU-funded Learning Analytics Community Exchange (LACE) project. The organisers are confirmed presenters in the morning session. Those listed as presenters have agreed in principle to contribute.

4.1 Organisers & Presenters

Doug Clow, The Open University, UK

Doug Clow is a Senior Lecturer working on learning analytics at The Open University, UK, and has more than 20 years' experience of projects harnessing new technology to improve learning. He has published some of his successes at LAK and tends to tell only his best friends about his failures. Doug is currently part of a large-scale transformatory analytics programme at the OU, and the LACE project. He has been co-organiser of three SoLAR Flares in the UK.

Rebecca Ferguson, Open University, UK

Rebecca Ferguson is a Senior Lecturer at The Open University in the UK, focused on educational futures, learning analytics, MOOCs, augmented learning and online social learning. She is a member of the steering committee of the Society for Learning Analytics Research (SoLAR) and a Programme Chair of the Practitioner Track at LAK16. She leads the LAEP project, which is considering the implications and opportunities of learning analytics for European educational policy. She co-chaired the 1st and 2nd International Workshops on Discourse-Centric Learning Analytics, held in Belgium and the US, as well as three SoLAR Flares held in the UK.

Leah Macfadyen, The University of British Columbia

Leah Macfadyen is Program Director, Evaluation & Learning Analytics in the Faculty of Arts at the University of British Columbia. Her applied research projects include development of visual models of student enrollment pathways to assist with curriculum re-development, social network analysis of learner engagement patterns in MOOCs and LMS-based courses, and visualization of themes in unstructured data (course evaluation comments) as well as continued testing of models of student activity and fine-grained indicators of achievement in online courses. Her experience of the challenges of implementing learning analytics in her large institution has pushed her to write and think about strategic approaches for implementing learning analytics at scale. She is also a member of the SoLAR Executive.

Paul Prinsloo, UNISA

Paul Prinsloo is a Research Professor in Open Distance Learning (ODL) in the College of Economic and Management Sciences, University of South Africa (Unisa). His academic background includes fields as diverse as theology, art history, business management, online learning, and religious studies. Paul is an established South African National Research Foundation (NRF) rated researcher and has published numerous articles in the fields of teaching and learning, student success in distance education contexts, learning analytics, curriculum development and corporate citizenship. He was awarded international fellowships to the Open University in 2007, 2009, and 2010 and received the Unisa Chancellor's Award for Outstanding Research in 2008.

4.2 Presenters

(Subject to timetabling constraints with other workshops at LAK.)

Shane Dawson, University of South Australia

Shane Dawson is the Director of the Teaching Innovation Unit at the University of South Australia. Shane's research focuses on the use of social network analysis and learner ICT interaction data to inform and benchmark teaching and learning quality. Shane is a founding executive member of the Society for Learning Analytics

² <https://www.chathamhouse.org/about/chatham-house-rule>

Research and past conference chair of the International Learning Analytics and Knowledge conference. He is a co-developer of SNAPP an open source social network visualization tool designed for teaching staff to better understand, identify and evaluate student learning, engagement, academic performance and creative capacity.

Hendrik Drachsler, Open University, NL

Hendrik Drachsler is Assistant Professor at the Welten Institute of the Open University of the Netherlands. His research interests include Learning Analytics, Personalisation technologies, Recommender Systems, Educational data, Open Science, mobile devices, and their applications in the fields of technology enhanced learning, science 2.0, and health 2.0. He is chairing the EATEL SIG dataTEL and the national SIG Learning Analytics of the Dutch umbrella organisation SURF. He is WP2 leader of the LinkedUp project and the scientific coordinator of LACE project.

Maren Scheffel, Open University, NL

Maren Scheffel is a researcher and PhD candidate at the Welten Institute of the Open University of the Netherlands. She is a computational linguist and has been working in the field of

technology enhanced learning (TEL) for several years where she was involved in several national and international TEL projects. Currently, she focuses her research on learning analytics, reflection and awareness support, personalisation and educational data. She is currently working on the LACE project.

Sharon Slade, Open University, UK

Sharon is a Senior Lecturer and Regional Manager in the Open University Business School. She leads and participates in projects which feed into teaching and learning across the Open University. For example, she acted as the Business Lead for 3 institutional projects linked to the provision of tailored curriculum-based student support. She is also chairing the team which has recently developed a new OU policy for the ethical use of learning analytics. Her current research interests relate to ethical issues in learning analytics.

5. REFERENCES

- [1] Macfadyen, L.P. and Dawson, S. 2012. Numbers Are Not Enough. Why e-Learning Analytics Failed to Inform an Institutional Strategic Plan. *Educational Technology & Society*. 15, 3 (2012), 149–163.