<table>
<thead>
<tr>
<th>Metric</th>
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<tbody>
<tr>
<td>Podcast hits</td>
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<tr>
<td>Attendance rates for online learning</td>
</tr>
<tr>
<td>Attentiveness</td>
</tr>
<tr>
<td>Percentage completion</td>
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<tr>
<td>No. of questions correct and incorrect in an interactive exercise</td>
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<tr>
<td>Hits to an LMS page on a certain topic for the week</td>
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<tr>
<td>Average time spent on an LMS page for a topic on a certain week</td>
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<tr>
<td>Login time and duration</td>
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<td>#downloads</td>
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<td>#uploads</td>
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<tr>
<td>#likes #dislikes #hearts #upvotes #downvotes...</td>
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<tr>
<td>Navigation trajectories (e.g., through an LMS)</td>
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Learning analytics (LA) – ubiquitous in education
What LA can inform (some examples)
• Improve learning through feedback to instructors and students. (Riemann, 2016)
• Help address issues such as recruitment. (EDUCAUSE, 2019)
• Several aspects of HE – student retention, institutional compliance to QA, target subgroups of student population, personalize learning at scale. (Sclater et al., 2016)

Examples of issues with LA we still need to work out
• Research field still needs to enhance evidence basis. (Ferguson & Clow, 2017)
  Authors note there is lots of data which could facilitate this.
• Higher education not efficient at analyzing LA. (Long and Siemens, 2011)
  Things more optimized in 2021 but still relevant!
• LA research field focused on researchers, as opposed to practitioners. (Viberg et al., 2018)
  So, we need to focus on teachers more.
Connected Learning at Scale (CLaS Project): Transforming teaching at University of Sydney Business School. More info on CLaS: See Vallis et al. 2020, ASCILITE Pechakucha

CLaS Project: Evaluators examine how various innovations fare in the classroom using a variety of data sources (focus groups, interviews, surveys and analytics).

Examples of LA examined for evaluation purposes:

- Student interaction with interactives made on concepts in business and employment (values exercise, job search) – Genially
- Video engagement of short videos detailing financial mathematics concepts in a blended learning format – Vimeo

Based on my experiences in using analytics for evaluation, I offer some tips to academics.
<table>
<thead>
<tr>
<th>Licensing and access to platforms</th>
<th>Understanding analytics from platforms</th>
<th>Usefulness in analytics obtained</th>
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</thead>
<tbody>
<tr>
<td>Ease of processing of analytics</td>
<td>Ethical considerations and student privacy</td>
<td>Delegation of labour in a multifunctional team</td>
</tr>
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</table>

Cross-semester comparisons

Triangulation and relationship with other forms of evaluation data
Correlating with Literature and The “So What”

Learning is not an isolated task (milliseconds – years) (Riemann, 2016). Data could be obtained at different parts of the learning process (Hwang et al., 2017), could store LA using BlockChain (EDUCAUSE, 2019).

More research is required to **solidify the evidence basis** for LA usage in the context of interventions, as seen by a systematic review looking at LA (e.g., assisting students – underperformance, risk of discontinuation) (Larrabee Sønderlund et al., 2019).

So, LA can be collated over different time periods across learning process.

**The “So What”**

This work can help academics:

1. Be aware of the multitude of considerations in planning and acquiring what LA to use, and how.
2. Be aware of the **BARRIERS** which they may encounter and plan for them.
3. Enhance their own research and/or evaluation aims.
4. Go and take a look and see how much data there is that can be used!
5. Get data which can feed into the overall “analytics trajectory” of a student over time.

Need leadership to support LA (Tsai et al., 2019).

So, if more of us are using LA then we can gain more of an **evidence basis** for how collecting such data can help inform teaching and learning.

**Some Other Important Considerations**
Learning Analytics (LA) in educational evaluation: Practical tips for collection and analysis

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Your questions are warmly invited!

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For more information about our research please visit our Co-design Research Group (CDRG) Blog:
https://cdrg.blog/
And for more information on the work presented:
https://cdrg.blog/2021/06/10/tips-for-academics-using-learning-analytics/

References