This document is a revised version of the LACE Compendium. The document describes the approaches taken in supporting the user engagement and outreach aspects of the LACE (Learning Analytics Community Exchange) project.
Contents

1. Introduction .................................................................................................................. 1
   About Issue 1 ................................................................................................................ 1
   About Issue 2 ................................................................................................................ 1
   Target Audience for this Document ............................................................................ 1
   Structure of this Document ......................................................................................... 2
   What This Document Does Not Cover ....................................................................... 2
   Access to this Document ........................................................................................... 2

2. Outreach and Engagement .......................................................................................... 3
   A Challenge for New Web Sites .................................................................................. 3
   The Key Approaches to Community Engagement and Dissemination ..................... 3
   Strategies for SEO (Search Engine Optimisation) ...................................................... 4
   Ownership Issues for Social Media Services ............................................................. 5
   Social Media: Some Caveats ....................................................................................... 6
   Strategies for SMO (Social Media Optimisation) ......................................................... 7
   Keeping Up-to-date With Blog Posts ......................................................................... 7
   Key Social Media Tools ............................................................................................. 7

3. Developing and Implementing an Events Strategy .................................................... 10
   Introduction ................................................................................................................ 10
   Gathering Information ............................................................................................... 10
   Selection Criteria ...................................................................................................... 10
   Involvement Alternatives .......................................................................................... 12

   Introduction ................................................................................................................ 13
   What Do We Mean By LACE “Associate Partners”? ............................................... 13
   What Instruments Do We Have? ............................................................................... 13
   Working Within the Network - the “ask” and the “offer” ........................................... 14
   Progress Report ......................................................................................................... 15

5. Measuring Effectiveness of Our Strategies ............................................................... 16
   The Importance of Evidence Gathering .................................................................... 16
   Feedback From LACE Team Members: Events ....................................................... 16
   Analysis of Web Site and Social Media Analytics ...................................................... 16
   Feedback From LACE Team Members: User Engagement and Dissemination Strategies ...... 16
   Tools Used .................................................................................................................. 17
   Evaluation of Events ................................................................................................. 17

6. A User View of the LACE Content Areas ................................................................. 18
   The LACE web site .................................................................................................... 18
   The Learning Analytics Review ............................................................................. 18
   The LACE Newsletter ............................................................................................... 18
   LACE Blog ............................................................................................................... 18
   LACE Tech Focus Blog ............................................................................................. 19
   LACE FAQs .............................................................................................................. 19
   The Evidence Hub ..................................................................................................... 19
## 7. Writing and Design Guidelines

- About This Section
- Blogging Guidelines - Main Site LACE blog
- Learning Analytics Review Guidelines
- Introduction to the Templates
- Creating New Templates and Variants
- Use of the Microsoft Word Template
- Use of the Microsoft PowerPoint Template

## 8. Sustainability Planning

- About This Section
- Intentions - What do we Mean by Sustainability
- Project Assets
- Project Knowledge and Expertise
- Risk Register
- Actions for Sustainability
- Plans for Web Archiving

### Appendix 1: Summary of the LACE Web Site Architecture

- Site Structure and Location
- Front Page, Call to Action and Widgets
- Site Menu
- Sector Pages
- News
- Tech Focus blog
- The Learning Analytics Review

### Appendix 2: URI Naming Policies

### Appendix 3: Naming Conventions for Personalised Bit.ly Links

### Appendix 4: Elements of the Visual Brand

- The LACE Logo
- Graphics Files and Intended Use
- LACE Associates - Template of a Letter of Intent

### Appendix 5: Design of the LACE Project Home Page

### Appendix 6: Learning Analytics Review

### Appendix 7: Key Tools and Services

### Appendix 8: SEO Audit

- The Need for SEO Audits
- Findings From Audits Using MajesticSEO
- Evidence From Searches Using DuckDuckGo
- Future SEO Audits

### Appendix 9: Link Checking For the LACE Web Site

About
1. Introduction

This document, the “LACE Compendium”, is a compilation of discursive writing, specific guidance and evidence which supports the work of the Learning Analytics Community Exchange (LACE) project to help establish a solid foundation for our community engagement and communications work. The Compendium provides documentation of the LACE project’s approaches to user engagement and outreach which will ensure that awareness of the approaches are shared across the project team. The Compendium is freely available with a Creative Commons licence to permit reuse by others.

About Version 1

The first version of the “LACE Compendium” was published in April 2014 as LACE deliverable D1.1. It was produced during the start-up phase of the LACE project based primarily on the expertise of Cetis staff (who have responsibility for WP2) in providing and delivering support for a range of projects. Issue 1 provided guidance based on how we envisaged the project’s outreach and engagement activities developing, and sought to provide justification for the guidance which was provided.

About Version 2

The second version provides an opportunity to update the Compendium based on the experiences gained during the first year of the project. Version 2 is published as a separate deliverable, D1.3.

This version has been significantly updated based on:

- Analysis of the Web Analytics and Improvement Plan (LACE public deliverable D2.4) and Review of Effectiveness (LACE public deliverable D1.2) reports.
- Observations of the LACE outreach and community engagement activities during this first year of the project.
- A series of structured Skype discussions held with project partners during autumn 2014.
- Plans for the growth of the LACE web sites from the launch phase through to hosting large numbers of reports, blog posts, FAQs, etc.

Target Audience for this Document

This document is intended for the following audiences:

- LACE project team members, who will use the approaches described in the document.
- EU reviewers of the project, who will wish to ensure that the user engagement and dissemination work are adequately documented and are robust and appropriate.
- Other EU and similar projects, that may wish to make use of this document which is available for reuse with a Creative Commons CC-BY licence.
- Others who may wish to provide feedback and comments on this document.
- Those who may have an interest in the sustainability of project resources after the end of project funding, who may need to understand the architecture of the web site and how the various aspects of the project interrelate.

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1 See http://www.laceproject.eu/deliverables/d1-1-lace-compendium/
2 See http://www.laceproject.eu/deliverables/d1-3-lace-compendium/
3 These reports are available from the LACE deliverables page at http://www.laceproject.eu/deliverables/
4 Comments can be made at http://www.laceproject.eu/deliverables/d1-1-lace-compendium/
Structure of this Document

This document has the following structure:

- **Outreach and Community Engagement**: an overview of the approaches taken to the outreach and engagement activities.
- **Developing and Implementing an Events Strategy**: an overview of the approaches taken in organising and delivering events.
- The **Network and Associates Strategy**: an overview of the plans for the networking and associates strategy.
- **Measuring Effectiveness of Our Strategies**: a review of the approaches taken to measuring the effectiveness of our strategic approaches and addressing areas of improvement.

These areas are followed by sections which give information on implementation details.

- **LACE Web Site**: an overview of the structure of the LACE web site.
- **Learning Analytics Review**: a summary of the role of the Learning Analytics Review, the QA processes and the technical infrastructure used to deliver the Review articles.
- **LACE Newsletter**: a summary of the role of the LACE Newsletter and the technical infrastructure used to deliver it.
- **LACE Blogs**: a summary of the role of LACE blogs and the technical infrastructure.
- **Learning Analytics FAQs**: a summary of the FAQs which are being developed.
- **Writing Guidelines**: intended for use by editors and contributors in order to aim to provide consistency in writing style.

The Compendium concludes with the following sections:

- **Sustainability and Planning**: an overview of the approaches taken to help to ensure the sustainability of the LACE project’s resources, community and expertise.
- **Appendices**: series of appendices.

**What This Document Does Not Cover**

This document covers the LACE project’s user engagement and dissemination work. The document does not address internal communications across the LACE project team.

**Access to this Document**

This document is potentially relevant to other projects or organisations engaged in similar kinds of activity. In the spirit of openness and sharing which underpins LACE work this document is published with a Creative Commons licence which permits reuse of the contents of the document.
2. **Outreach and Engagement**

The aim of this section is to outline the approaches to be taken in the LACE project in order to:

- Maximise awareness of the project and project deliverables.
- Ensure that those with interests in LACE outputs (including reports, events, blog posts, etc.) are made aware of the outputs in a timely fashion.
- Support the development and growth of a sustainable community with interests in learning analytics.
- Monitor the effectiveness of the communication and dissemination channels.
- Provide reports on use of the communication and dissemination channels to LACE managers, project team members and funders.

**A Challenge for New Web Sites**

The LACE web site was established during 2014. New web sites will face difficulties in becoming known in a crowded online environment and this is an acknowledged challenge which the LACE project is addressing: how will we ensure that the work of the LACE project and the resources and services hosted on the LACE web site are found and used by the target communities? These challenges are being addressed by a focus on search engine optimisation (SEO) for the LACE web site.

**The Key Approaches to Community Engagement and Dissemination**

**Two-pronged Approach**

A two-pronged approach is described in this document which aims to address our key challenges:

1. Promotion of new deliverables and outputs.
2. Sustained access to resources over the life of the LACE project and beyond.

The two approaches are related: use of social media is particularly useful when promoting new resources whereas search engine optimisation techniques are more suited for established resources.

**Search Engine Optimisation (SEO)**

In light of the importance of Google in finding resources the LACE project has given priority to SEO (Search Engine Optimisation) techniques. This emphasis means that policy decisions which can enhance SEO are addressed first and then approaches for implementing such decisions are investigated. If the desired approaches are found to be difficult to implement or cause problems in other areas, we may choose not to implement such approaches. However, in such cases we document our decision.

**‘On the page’ and ‘Off the page’ SEO**

In the early days of the web finding resources on the web was dependent primarily on the contents of the web resource. The expression ‘on the page SEO’ was used to describe approaches (such as provision of keywords, content of resources and how the resource was structured) to help ensure the resources were easily found. However, when Google introduced a search engine which used the Page Rank algorithm in order to ensure that content could easily be found, it was necessary to encourage links from relevant resources. The expression ‘off the page SEO’ was used to describe link-building strategies which would help ensure the resources were easily found.
Since discoverability by search engines, particularly Google, is so important there is an industry based on SEO. However there are both ethical and unethical approaches to SEO, which are often referred to as “White Hat” and “Black Hat” SEO:

**White Hat SEO:** Ethical approaches to SEO including appropriate use of keywords, well-structured HTML pages, providing links from relevant third party web sites, etc.

**Black Hat SEO:** Unethical approaches to SEO including providing metadata which does not relate to the content of the resource, ‘masking’ pages so that different content is provided to indexing engines and users or providing links from spam link farms.

The LACE project is using White Hat SEO approaches. In order to ensure that ethical approaches are taken we are documenting the approaches we take to SEO.

**Social Media Optimisation (SMO)**

The social web introduced a significant new way in which resources could be found: rather than resources being found based on indexing algorithms, social media services are powered by individuals, with individuals sharing resources of interest with their peers. Social Media Optimisation (SMO) can be particularly valuable for those with online networks, since resources of interests to one’s community can be shared and discussed with one’s peers.

**Strategies for SEO (Search Engine Optimisation)**

**Providing Links to LACE Resources**

In order to ensure that LACE deliverables and other digital outputs will continue to be easily found using search engines we will seek to maximise the numbers of links to deliverables from appropriate web resources. In particular we will:

- Seek to maximise the numbers of links to the LACE web site and LACE deliverables from relevant web sites.
- Register the LACE web site and the LACE blog with appropriate directories of resources.
- Encourage authors of Learning Analytics Review articles to link to their articles from popular services such as LinkedIn.

We have made use of MajesticSEO\(^5\), an SEO auditing service, to provide a benchmark of the number of links to the LACE web site during the first six months of the project and monitor developments during the project life.

**Design of URIs**

An important aspect of SEO is the design of URIs. Good URI design is important for both humans and for machines. Important aspects of URI design include:

- **Memorability:** Of particular importance to humans is that URIs should be memorable and easy to remember and type.
- **Brevity:** Of importance to humans is that URIs are short and easy to type.

• **Meaningfulness**: It can be beneficial to humans if URIs provide some indication of the resource. In addition such meaningfulness can also be important to search engines, which will give greater ranking for resources which have a URI name which relates to the search query than resources which have opaque names.

• **Scalability**: The URI naming scheme needs to be scalable, so that it can continue to be used in a consistent fashion at the end of the project life, when the web site contains large numbers of resources and a wide variety of different types of resources.

• **Implementable**: The URI naming scheme needs to be able of being implemented. This will be affected by the functionality of the Content Management Systems used and the performance and resource implications of decisions made. In addition where URI naming decisions have to be made by individual authors it may not always be realistic to expect best practices to be implemented.

**Content Areas**
The LACE web site contains a number of separate areas. The naming conventions for the URIs for the areas have been designed in order to maximise SEO benefits. The LACE web site also contains web pages hosted under the various areas. The naming conventions for the URIs for the areas have been designed in order to maximise SEO benefits. Appendix 2 summarises the naming conventions we have adopted.

**Hosting LACE Resources on Third-Party Services**
In addition to the official LACE project web site we are using a number of services to host additional content in order to take advantage of the functionality the services provide and to seek to benefit from the ‘Google juice’ such services may provide.

**Example: Slideshare**
The Slideshare hosting service is used to host slides used by LACE team members in an environment that allows the content to be embedded elsewhere.

Metadata on the title of the talk, location and date of the event and name and institution of the speaker will help people find the slides if they have partial information about the talk. Slides should also include the tag “laceproject” in order that they are identified as being relevant to the LACE project.

The metadata will also provide URLs for the LACE web site and further information related to the presentation (e.g. blog posts).

**Ownership Issues for Social Media Services**

**Personal Use of Social Media Services**
Social media can be particularly effective when it delivers an authentic and individual voice. This is particularly important when social media is being used to support conversations and discussions. The LACE project therefore encourages team members to make use of social media as individuals. Whilst it is recognised that individuals will have a range of professional interests beyond LACE work and individuals may also use social media to support personal interests, it is also acknowledged that such hybrid use of social media is widely understood.
Organisational Use of Social Media Services

Social media can also be used by organisations, projects, etc. In such circumstances a number of people may have responsibility for managing the channel, creating the content and engaging in discussions. Although this can result in a lack of a single voice, it has the benefit that the channel can provide focused content. The LACE project will therefore complement individual use of social media with organisational use of a number of relevant services.

Social Media: Some Caveats

Personal Preferences

Before describing the strategies for making use of social media to enhance user engagement and dissemination activities it is important to acknowledge that social media should not be regarded as a ‘silver bullet’ that is applicable for all members of the project team. The Belbin model for team roles proposes a number of roles which are needed for successful teams: Plant; Resource Investigator; Coordinator; Shaper; Monitor Evaluator; Team worker; Implementer; Finisher and Specialist.

There may be particular team roles (e.g. Plants who are “creative, unorthodox and generators of ideas” and Resource Investigators who “give a team a rush of enthusiasm at the start of the project by vigorously pursuing contacts and opportunities”) for whom social media is particularly relevant and other team roles (e.g. Team workers who are “the oil between the cogs that keeps the machine that is the team running smoothly. They are good listeners and diplomats” and the Finisher who is “a perfectionist and will often go the extra mile to make sure everything is ‘just right,’” for which use of social media is not particularly conducive to their style of working.

For a distributed team, such as the LACE project, it is likely that there will be a variety of preferred team roles. It should therefore not be expected that everyone will find social media to their liking.

Resource Considerations and Other Constraints

In addition to personal preferences and styles of working there are other considerations to be aware of which may limit the effectiveness of use of social media to support the LACE project such as:

- **Device considerations:** Increasingly social media services are used from mobile devices. However, not everybody will own such devices or will wish to use one at events.
- **Environmental factors:** Even if a mobile device is available, limited WiFi availability, limited or affordable 3G connectivity and limited battery life may hinder use of the device.
- **Privacy issues:** Even when mobile devices are available and usable, individuals may choose not to register for or use particular social media services due to privacy concerns.

Conclusions

In light of these caveats we have developed the following approach for use of social media to support the LACE project’s outreach and user engagement activities:

Use of social media to support the LACE project’s outreach and user engagement activities is welcomed. Advice and guidelines on use of best practices will be provided and the reasons for recommended practices will be given. However, we appreciate that use of

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6 see [https://en.wikipedia.org/wiki/Team_Role_Inventories](https://en.wikipedia.org/wiki/Team_Role_Inventories)
social media may not suit everyone’s preferred style of working. We will therefore not mandate adoption of the approaches described in this document.

Strategies for SMO (Social Media Optimisation)

Promoting New Work

Prior to the release of new work a marketing plan should be produced and implemented. An example of a marketing plan for a new Learning Analytics Review article is shown below. It should be noted that since Learning Analytics Review articles will be high profile outputs, it will be expected that authors of such reports and work package leaders will ensure that the marketing plan is followed.

Example: New Learning Analytics Review Article

The report is proof-read and copy-edited according to LACE guidelines for new Learning Analytics Review articles. Whilst the article is being finalised, a brief ‘press release’ about the article is produced which gives an executive summary of the article. The press release is made available on the project web site prior to the publication of the article and shared across the LACE project team who can use it in the preparation of blog posts, email messages, etc. about the article.

The article is announced in a blog post and a tweet from the official @laceproject Twitter account:

Ethics & Learning Analytics, Learning Analytics Review article now available: bit.ly/lace-review-1 #laceproject

Similar marketing plans are used for other significant works. The plans vary depending on the resources available, significance of the activity, etc. An example of the approach for a new LACE blog post is given below.

Example: New LACE Blog Post

The author tweets a link to the post from his/her personal account:

My trip report on the #LAK14 conference: bit.ly/1i6kEKN #laceproject

Personalised bit.ly URL will normally be created for key resources and significant areas of the LACE web site, which will enable usage statistics to be easily found. Appendix 3 summarises the naming conventions for personalised bit.ly links.

Keeping Up-to-date With Blog Posts

Although new blog posts are available via the blog’s RSS feed, the Feedreader service can be used to receive new posts via email.

Key Social Media Tools

Social media tools are used by the LACE project for several reasons:

- To support the development and growth of a community with interests in learning analytics.
- To facilitate discussion and exchange of ideas.
- To facilitate the sharing of resources, ideas, discussions, etc.
- To make use of established and mature existing tools which are felt to be sustainable.
- To facilitate discussions around resources hosted on mature social sharing services.

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7 See http://www.laceproject.eu/feed
8 See https://feedburner.google.com/fb/a/mailverify?uri=Lace-LearningAnalyticsCommunityExchange
Note that in order to maximise these benefits we are looking to maximise growth of network connections across those with interests in learning analytics.

This section summarises the main social media tools used by the project.

**Twitter**

Twitter is being used as a lightweight and mature tool which is widely used to support discussions, exchange of ideas and promote access to digital resources. LACE team members will have personal responsibilities for the development of their personal Twitter networks. In addition team members are encouraged to promote the @laceproject Twitter account by, for example, mentioning the account at events, retweeting relevant posts, etc. A summary of the role of the @laceproject Twitter account is given below.

<table>
<thead>
<tr>
<th>About the @laceproject Twitter Account</th>
</tr>
</thead>
<tbody>
<tr>
<td>The @laceproject Twitter account provides information on LACE activities, publishes announcements of new outputs and promotes discussions about learning analytics. The Twitter account follows other accounts from those with strong interests in learning analytics. The focus on learning analytics means that the account will provide a strong signal/noise ratio. The @laceproject Twitter account will be promoted at events and in LACE publications.</td>
</tr>
</tbody>
</table>

Twitter is of particular importance to the LACE project at events where use of an event hashtag or the #laceproject hashtag can enable rapid evaluation and feedback on events to be gathered.

**Twitter Tools: Dlvr.it, TAGS, Twubs, Storify and Topsy**

A wide range of tools are available which use Twitter APIs to provide additional functionality. The main tools used by the LACE project to support use of Twitter are Dlvr.it, TAGS, Twubs, Storify and Topsy. **Dlvr.it** is a tool which is used for the automated announcement of new blog posts on Twitter. **TAGS** is a sophisticated Twitter archiving and analytics tool. It can be used to archive Twitter hashtags. However it can be complicated to set up new TAGS archives. TAGS is therefore used to archive selected significant Twitter hashtags including #laceproject. **Twubs** is a simpler Twitter archiving tool. Twubs is used to set up archives of small events of relevance to the LACE project. In contrast to TAGS and Twubs, **Storify** is used to manually curate tweets from significant events of relevance to the LACE project.

Whereas the TAGS and Twubs Twitter archiving tools are focussed on archiving tweets containing a particular hashtag, **Topsy** is being used to archive tweets about a particular URI. Since tweets are unavailable via the Twitter API after a short period (about 10 days) links to Topsy should be created shortly after a new web page is created. Links to Topsy archives are embedded near the bottom of web pages for key deliverables and recent blog posts.

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9 See [http://www.dlvr.it/](http://www.dlvr.it/)
10 See [https://mashe.hawksey.info/2014/10/need-a-better-twitter-archiving-google-sheet-tags-v6-0-is-here/](https://mashe.hawksey.info/2014/10/need-a-better-twitter-archiving-google-sheet-tags-v6-0-is-here/)
11 For example see the archive of the SoLAR Flare event at [http://twubs.com/LACEflare](http://twubs.com/LACEflare)
12 For example see the curated summary of tweets for the opening session of the SoLAR Flare event at [https://storify.com/briankelly/solar-flare-2014-summary-morning](https://storify.com/briankelly/solar-flare-2014-summary-morning)
Lanyrd
Lanyrd is a social directory of events. The Lace project’s Lanyrd account provides details of relevant learning analytics events. In addition event participants are encouraged to register attendance on the Lanyrd entry which will enable a community who attended learning analytics events to be identified.

LinkedIn
A LinkedIn group has been established by the LACE project to support discussions and sharing of resources. The group currently (15 January 2015) has 204 members, including many of the project's Associate Partners. Use of LinkedIn is felt to be particularly important for communities and users who do not make use of Twitter.

In addition to the LinkedIn group some LACE team members have included links to the LACE project web site from their personal LinkedIn profile page. Since LinkedIn has a high Google ranking, such links will enhance the SEO characteristics of the LACE web site.

Slideshare
Slideshare is used to host significant presentations used by LACE team members. Presentations contain a “laceproject” tag to enable relevant presentations to be easily found. Use of Slideshare enables presentations to be easily embedded in other web sites, blogs, etc.

Google Hangout
Google Hangout is used to host LACE Webinars.

YouTube
A YouTube channel is used to host archives of recordings of LACE webinars.

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14 See http://lanyrd.com/profile/laceproject/
15 See https://www.linkedin.com/groups?home=&gid=8133802&trk=anet_ug_hm
16 See http://www.slideshare.net/search/slideshow?searchfrom=header&q=%23laceproject
17 See http://www.laceproject.eu/data-interoperability/webinars-la-interoperability/
18 See https://www.youtube.com/channel/UCc4dGQLc3xPLUGcEp5dHyw
3. Developing and Implementing an Events Strategy

Introduction
Given the nature of LACE as a support action aimed at spreading excellence, exploiting results and sharing knowledge, it is clear that organisation and participation of events is a key aspect of LACE’s activities. This section describes our approaches to event participation and management.

The way we are working to support the management of events by the LACE partnership can be described in several steps that will be elaborated in the following sections. These steps are to:

- Gather information about events already known about and of interest to the partnership.
- Agree the selection criteria that can be applied to events.
- Apply selection criteria to the events to reach consensus on events to be targeted.
- Put forward proposals for additional events to be organised by LACE as necessary in order to extend and strengthen the community of interest in LACE matters.
- Describe what will happen at selected events in terms of activities and support.

Gathering Information
In the first round of gathering information a form was circulated to collate information about the events partners are already attending and other events that may be of interest. These are documented in the “LACE event log” which includes the name, date and location and indications of which partner is planning to be involved and the relevance for the various LACE sectors.

This log continues to be augmented with information about other relevant events. Events that emerge from WP 4-6 will also be added to this log. Separate folders are being created on Google Drive for information related to events of interest including calls for proposals, submissions made and presentations and papers given in order to avoid duplication and to contribute towards the creation of a useful body of re-usable materials that can be used throughout the life of the project.

Selection Criteria
There are many events spread over the year. Since we are working with limited resources, it is important that we are selective, choosing those events and opportunities where we can best achieve our objectives. We also need to ensure that in our selection we take into account the different target groups for our work and the various ways in which we might engage with events.

There are three reasons or drivers why we might involve ourselves in events. While these are not mutually exclusive it is worth considering them separately in order to ensure that the calendar of events chosen by LACE as being of high importance adequately covers each driver.

1. spreading information
2. building skills
3. creating shared knowledge

Each driver implies certain characteristics pertaining to the type of events chosen which are described in the following table.
<table>
<thead>
<tr>
<th>Driver</th>
<th>Creating shared knowledge</th>
<th>Building skills</th>
<th>Spreading information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoped for outcome</td>
<td>Those involved contribute to the body of knowledge surrounding the LACE project in terms of LA and as a secondary outcome, become more involved in the community.</td>
<td>Those involved will build up their skills and knowledge in relation to Learning analytics and EDM, aware not only of the tools and resources they might use but more importantly the value LA and EDM can bring in a pedagogical context. Also as a secondary outcome, those involved get more engaged in the community.</td>
<td>More people will join the LACE community and get involved in our activities.</td>
</tr>
<tr>
<td>Provides opportunities for Interactivity</td>
<td>Highly important</td>
<td>Highly important</td>
<td>Less important</td>
</tr>
<tr>
<td>Need to be synchronous</td>
<td>Highly important</td>
<td>Highly important</td>
<td>Less important</td>
</tr>
<tr>
<td>Need for hands-on</td>
<td>Less important</td>
<td>Highly important</td>
<td>Less important</td>
</tr>
<tr>
<td>Numbers of people engaged</td>
<td>Needs opportunities for small group dialogue</td>
<td>If sufficient support is available there can be up to 30 people involved</td>
<td>Potentially large</td>
</tr>
<tr>
<td>Typical formats</td>
<td>Workshop, world café, moderated discussion, webinar</td>
<td>Workshop or webinar</td>
<td>Presentation, leaflet distribution, poster display, webinar, stand, social event</td>
</tr>
<tr>
<td>Online possibility</td>
<td>Certainly possible provided sufficient care is taken to provide adequate interaction opportunities</td>
<td>Possible provided sufficient care is taken to provide adequate interaction opportunities and remote hands-on practice</td>
<td>Certainly possible</td>
</tr>
</tbody>
</table>
Our approach is to use these different drivers as a way to distinguish events by connecting participation variables with each. For example, certain events allow for the organisation of workshops which can provide an opportunity to provide training enabling participants to build up their skills in LA and EDM while for other events we know that the only opportunity for LACE to take part is to submit a proposal for a paper.

The second set of selection criteria that we propose is the target sector. In LACE we have clearly identified three sectors: (1) schools, (2) workplace learning and (3) higher education. In the selection process, we therefore need to take care to select enough events to reach each of the sectors as evenly as possible.

A third set of selection criteria is linked to geographical reach. While it is clear that a project such as LACE is working with a limited set of resources, it is still important that the support and information provided by the project reaches as wide a selection of interested people as possible. This means that while we will identify events that are largely aimed at a Europe-wide audience, we will also investigate options for participating in events that have a more regional focus.

A final set of selection criteria relates to the dissemination value accorded to each decision taken in relation to an event. Certain activities are very resource-demanding like the organisation of a dedicated conference or the setting up of a series of face-to-face workshops and so the selection of events chosen for support within the project needs to take this into account. This also touches on aspects to do with depth of engagement and the argument as to whether reaching a very large audience with a simple message about what LACE has to offer is of more value than working with a far smaller number of people to really create new knowledge through engagement in in-depth debate. In the case of LACE, we propose to try to ensure that we do not ignore the value of a wide dissemination action to the detriment of having also several in-depth engagements with strategically important individuals and institutions.

Involvement Alternatives
There are several different types of involvement worth considering when it comes to engagement in external events and several can be combined. Here is a list of the most common ones:

- Presentation of LACE during a presentation session with a specific duration usually accompanied by slides or other AV support materials.
- Distribution of LACE promotional materials either as part of a package given to attendees or in a dedicated space.
- Organisation of a demonstration or show-and-tell related to some aspect of LA.
- Management of a workshop as part of the event on a specific aspect or theme related to the work of LACE.
- Setting up a stand dedicated to LACE and putting on a display of what LACE has to offer.
- Sharing a stand with other projects or initiatives sharing similar objectives.
- Organisation of a cocktail or other social events to share information about LACE and to build up the network and connections amongst the target group.
- Organisation of a workshop or side event before or after the main event either as part of the event offer or as a separate event that is promoted independently (for example the panel discussions at LAK15 that will be made of Associate Partners).
4. Network and Associates Strategy

Introduction

The idea of a Learning Analytics Community Exchange is predicated on the use, and enhancement, of the social network around learning analytics. This is not simply a question of improving channels of dissemination but includes the mutual exchange of ideas between actors in the network, both central and peripheral. We are also committed to collaborating with other central actors in the network in the interests of efficiency.

This section of the LACE Compendium is concerned primarily with how we relate to the people who are, or are potentially, active participants in this network. This idea can be expressed by asking: “what is it that we want from these people and organisations and what is it that we can offer them that might make them willing to give?”

What Do We Mean By LACE “Associate Partners”? 

The term “associate partners” was used in the DoW in a less specific way than is described here. Associate Partners are key actors in the community, potentially individuals or organisations. We use the term for a clearly defined, but non-committing, relationship with reciprocal benefits. We should:

• Have a number of Associate Partners, primarily drawn from the highlighted rows in Tables 4.1 and 4.2.
• Maintain frequent dialogue through a named individual in LACE.

Hence, the idea is one of equal peers working together for mutual benefit. So, although we might use the term “LACE Associate” to refer to an initiative “X”, members of X might refer to us as “X Associate”. We will increasingly work with these partners to:

• Provide mutual support in out-reach and dissemination.
• Co-organise events.
• Co-author reports and provide peer-review.
• Help to join up communities of educators, researchers, policy-makers, and suppliers.
• Discuss emerging themes and priorities for action.
• Avoid duplication of effort and maximise synergy.

What Instruments Do We Have? 

In order to think how we might effect enhancement of the social network around learning analytics, we should consider what instruments we have. The following list is drawn from the Description of Work, with some additional possibilities identified in italics:

1) Publications: (a) informal, medium/short, articles (portal “blog posts”); (b) Learning Analytics Review; (c) Tech Focus blog; (d) Newsletter (“forward plans and significant outputs”); (e) Twitter and (f) Papers submitted to conferences
2) Events: (a) participative, e.g. workshops, and (b) informative, e.g. webinar, conference presentations
3) Platform for non-project people: (a) Guest articles on the web site\textsuperscript{19}, e.g. self-publication of a case study, or a focus on an area of particular personal/professional interest such as LA and accessibility and (b) Advertisement of events being put on by third parties.

4) Our time: (a) time to coordinate, e.g. secretariat for a SIG; (b) visible and public contributions, e.g. on panel and (c) invisible contributions e.g. peer review

Groups 3 and 4 are potentially quite important because they express the idea that LACE is part of a community, rather than being a seller of its products, competing for market share. How we approach designing and using these instruments should be refined according to what we wish to achieve through them.

**Working Within the Network - the “ask” and the “offer”**

The previous section addressed the means to effect the “offer” in the question posed at the end of the remarks on the network and associates strategy, “what is it that we want from these people and organisations and what is it that we can offer them that might make them willing to give?”

To address the “ask”, i.e. what actions we seek, it is helpful to stratify people and organisations and to break-down the question according to stereotypes. The following tables do this, suggesting indicative rather than prescriptive approaches. The rows are organised according to increased awareness of learning analytics, but this is broadly equivalent to an increasing potential for active and reciprocal engagement. The highlighted rows indicate the kind of person or organisation we might engage with as LACE Associate Partners.

<table>
<thead>
<tr>
<th>People Who...</th>
<th>The Ask</th>
<th>The Offer</th>
<th>Principal Instrument\textsuperscript{20}</th>
</tr>
</thead>
<tbody>
<tr>
<td>have some awareness about LA but a role where it is not a significant topic.</td>
<td>Nothing</td>
<td>information and enhanced awareness</td>
<td>Articles. Newsletter. Informative events SEO is particularly important for these people to find us.</td>
</tr>
<tr>
<td>have some awareness about LA and a role where it is becoming a significant topic.</td>
<td>Comment on publications</td>
<td>Information and enhanced awareness. Opportunities to engage with peers.</td>
<td>Articles. Newsletter Learning Analytics Review. Informative events.</td>
</tr>
<tr>
<td>have reasonably current knowledge but not deep. LA is likely to be a significant topic.</td>
<td>Comment on publications. Link to us from their publications</td>
<td>As above</td>
<td>As above + Twitter Participative events.</td>
</tr>
<tr>
<td>have sufficiently deep (but maybe narrow) knowledge to offer critique (maybe technical, social, legal, ...)</td>
<td>As above+ Peer review Learning Analytics Review Re-tweeting.</td>
<td>The same as the ask. A channel for them to reach a wider audience.</td>
<td>Learning Analytics Review Twitter Guest articles Our time These people are assumed to...</td>
</tr>
</tbody>
</table>

\textsuperscript{19} We would need to be very clear what is, or is not, produced or run by LACE people. For the guest blog there is both the need to be clear with attribution to the creator and to have some editorial control (even if they are re-publishing a prior work).

\textsuperscript{20} NB: (taking the newsletter as an example) this does not mean that the newsletter would not be circulated widely. The implication is that the newsletter is particularly pitched at these people because that medium is better matched to people who are less embedded. In fact, the newsletter may also be of value in communicating with people involved in organisations at the opposite end of the spectrum: people who are particularly concerned with LA/EDM may be very focussed on their own activities and proximal community.
political, pedagogic...)

have an international reputation in the fields of LA or EDM...
be already embedded in the wider LA/EDM network.

As above+
Link to us as a high status friend/collaborator/associate
The same as the ask.
Our time

<table>
<thead>
<tr>
<th>Table 4.1: Stereotypes of people</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Organisation that...</strong></td>
</tr>
<tr>
<td>is a TEL-related project with no WP or objective aligned to analytics or data</td>
</tr>
<tr>
<td>is a TEL-related project with a WP or objective that is aligned to analytics or data</td>
</tr>
<tr>
<td>is a TEL-related project with analytics or data as its prime focus</td>
</tr>
<tr>
<td>is concerned with education policy and practice, especially ICT in education</td>
</tr>
<tr>
<td>is particularly concerned with LA and EDM, either as its raison d’être or as a significant action line</td>
</tr>
</tbody>
</table>

Table 4.2: Stereotypes of organisations or initiatives

* These should be handled as special cases. We should consider organisations with various drivers and values. For example, commercial suppliers, OSS foundations such as Apereo Foundation, the disciplinary groups such as SoLAR and IEDMS, focussed initiatives at national or regional level.

The ‘ask’ and the ‘offer’ will surely differ. For example, a commercial player may see LACE as an opportunity to reach potential customers, which would require appropriate handling to ensure LACE is seen as impartial and trustworthy.

**Progress Report**
A progress report on developments has been provided in an internal report to the EU: Liaison Report 2014, Deliverable D8.2, submitted on 18 December 2014.

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21 “TEL-related” is meant as a loose term. It includes, but is not limited to, FP7.
22 [http://www.apereo.org/](http://www.apereo.org/)
5. Measuring Effectiveness of Our Strategies

The Importance of Evidence Gathering
Since the LACE project is concerned with the gathering and use of data in order to monitor and enhance learning it is fitting that the approaches taken in the community engagement and outreach work should also gather and use data to monitor the effectiveness of its approaches to this work and refine these approaches based on the evidence.

Feedback From LACE Team Members: Events
In autumn 2014 an online evaluation form was used by members of the LACE project team in order to solicit feedback on our events strategy and to identify areas of possible improvement. The findings from the survey have been published in the Review of Effectiveness (LACE public deliverable D1.2) report.\(^{25}\)

Analysis of Web Site and Social Media Analytics
In autumn 2014 the usage statistics for the LACE web site and the social media services used to support the project were analysed and areas of improvement were identified. The findings have been published in the Web Analytics and Improvement Plan (LACE public deliverable D2.4) report.\(^{26}\)

Feedback From LACE Team Members: User Engagement and Dissemination Strategies
In autumn 2014 a series of structured interviews were held with the majority of the LACE team members in order to gather feedback on the user engagement and dissemination activities and to ensure that team members were aware of any developments to the approaches. The structured interviews took place during October and November 2014 using Skype. The following areas were addressed:

- Purpose of the call.
- Summary of interviewees’ work package.
- Opportunities and concerns.
- Learning Analytics Review articles: areas which could be covered; timings; summary of QA processes; etc.
- Blog posts: ideas for contributions; syndication of posts; etc.
- Events: details of forthcoming events. Use of social media for (a) promoting event; (b) amplifying event and (c) reporting on event.
- Social media tools: tools you use regularly; tools you will be prepared to use; tools you don’t use.
- Domains you manage and web sites you use which can be used to provide backlinks to the Lace web site.

The provision of backlinks to the LACE web site from web sites managed or used by team members was one area which was specifically addressed in the interviews, as such backlinks are important for search engine optimisation. As described in Appendix 8 an SEO audit was carried out in April 2014.

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\(^{25}\) This reports are available from the LACE deliverables page at http://www.laceproject.eu/deliverables/

\(^{26}\) These reports are available from the LACE deliverables page at http://www.laceproject.eu/deliverables/
and repeated in January 2015 in order to monitor the key web sites which provide links to the LACE web site. It was pleased to observe that a number of additional web sites used by project partners were listed in the top ten web sites for the second survey.

**Tools Used**
Section 2 on Outreach and Engagement describes the various tools used to support this work. Many of the tools used will provide data on their usage. In addition a number of other tools will be used which provide evidence gathering capabilities. A summary of the tools used for evidence gathering is shown in the following table.

Information on use of the LACE dissemination and outreach channels will be collected and used for reports to LACE project team members and in reports to the funders. The following table summarises the approaches to be taken in gathering and using evidence.

<table>
<thead>
<tr>
<th>Tool</th>
<th>Area</th>
<th>Notes on evidence-gathering function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Google analytics (GA)</td>
<td>LACE web site</td>
<td>Web statistics for LACE web site. Findings are shared with LACE partners and help to inform dissemination plans, as well as provided in reports to EU.</td>
</tr>
<tr>
<td>Web log analysis</td>
<td>LACE web site</td>
<td>Web statistics for LACE web site. Findings include binary files (e.g. PDFs) not analysed by GA. Findings provided in reports to the EU.</td>
</tr>
<tr>
<td>Slideshare</td>
<td>Repository of slides</td>
<td>Usage statistics (nos. of downloads, favourites, comments, etc.). Findings are used to identify places in which slides are reused. Findings provided in reports to the EU.</td>
</tr>
<tr>
<td>TAGS</td>
<td>Twitter</td>
<td>Variety of statistics on use of Twitter. Used in reports to the EU.</td>
</tr>
<tr>
<td>Bitly</td>
<td>Twitter</td>
<td>Usage statistics on links to LACE resources followed from tweets.</td>
</tr>
<tr>
<td>Topsy</td>
<td>Twitter</td>
<td>Usage statistics on links to LACE resources followed from tweets.</td>
</tr>
<tr>
<td>MajesticSEO</td>
<td>SEO</td>
<td>Monitor growth in links to LACE web site (see Appendix 8).</td>
</tr>
</tbody>
</table>

*Table 5.1: Tools to gather usage data and other evidence*

**Evaluation of Events**
We provide a standard evaluation form for use at significant events organised by the LACE project team (however since some events will have their own evaluation processes we may not always make use of our evaluation forms). We encourage participants at events to make use of Twitter and an event-specific Twitter hashtag which can provides a means of recording qualitative feedback on such events as well as facilitating discussions and exchange of ideas. In order to encourage participants to use Twitter to provide feedback we encourage speakers and chairs to invite the audience to provide feedback on Twitter at the end of events.
6. **A User View of the LACE Content Areas**

This section provides a user-focussed summary of the main content areas provided by the LACE project together with a brief summary of the underlying technology used to provide the service.

**The LACE web site**

The LACE web site is available at [http://www.laceproject.eu/](http://www.laceproject.eu/). The LACE web site hosts the following areas: the Learning Analytics Review, LACE blogs, LACE FAQs and general information about the LACE project. The LACE Web site is provided by the open source Wordpress content management system/blogging platform. Separate installations of Wordpress are used to deliver the main LACE web site and blog, the Tech Focus blog and the Evidence Hub.

**The Learning Analytics Review**

The Learning Analytics Review is the name given to the collection of papers which cover a variety of aspects related to learning analytics. The papers are peer-reviewed and the commissioning and editorial processes will aim to ensure that the papers are of high quality. Since it is envisaged that the papers will have high visibility and be widely cited by the community, the Learning Analytics Review web site is designed to implement best practices for search engine optimisation (SEO) including use of stable and meaningful URIs which will encourage citations.

The Learning Analytics Review has an ISSN: ISSN 2057-7494. Learning Analytics Review articles are available from [http://www.laceproject.eu/learning-analytics-review/](http://www.laceproject.eu/learning-analytics-review/). The Learning Analytics Review site runs on a self-contained instance of Wordpress and makes use of a number of plugins to extend its functionality.

**The LACE Newsletter**

The LACE Newsletter is published quarterly. The first LACE newsletter was published in June 2014 and subsequent issues September and December 2014.

The first two versions of the LACE Newsletter were used to raise awareness of the LACE project and its activity. Now this has been done, the newsletter will be used as a tool to raise awareness of learning analytics and of educational data mining (EDM). The intention is to keep interaction high with fresh, timely content. There will be a shift from a focus on the project to an 80/20 balance. In future issues, 80% of content will be informative or educational and only 20% of content will be focused on the project’s products and services.

The Newsletter is delivered to subscribers by email as a formatted message. Archives of previous newsletters are available. The LACE Newsletter is provided by the JISCMail service. To subscribe to the LACE newsletter send an email to listserv@jiscmail.ac.uk with the following body text: SUBSCRIBE LACEPROJECT

**LACE Blog**

The LACE blog provides a key communication channel for the LACE project, with regular posts being published by LACE project team members. Recent blog posts are available on the home page of the LACE web site. The blog posts include news items, details of LACE project activities, information on learning analytics and of educational data mining (EDM). The intention is to keep interaction high with fresh, timely content. There will be a shift from a focus on the project to an 80/20 balance. In future issues, 80% of content will be informative or educational and only 20% of content will be focused on the project’s products and services.
learning analytics events and general information related to learning analytics. The main LACE blog is available at [http://www.laceproject.eu/blog/](http://www.laceproject.eu/blog/). It is managed by the main Wordpress instance.

**LACE Tech Focus Blog**

The Tech Focus blog is intended for users who may be inclined to experiment with code and statistical analysis using packages such as ‘R’. Member of the LACE project who wish to share details of their technical work can post on this blog. The Tech Focus blog is available at [http://www.laceproject.eu/tech/](http://www.laceproject.eu/tech/). It is hosted as a separate Wordpress instance.

**LACE FAQs**

The LACE FAQs provide answers to frequently asked questions about learning analytics. The first LACE FAQ, “What are learning analytics?” was published in December 2014. The LACE FAQs are available at [http://www.laceproject.eu/faqs/](http://www.laceproject.eu/faqs/). The URIs for the FAQs are designed according to best practices for SEO in order that the answers are highly ranked in Google.

**The Evidence Hub**

The Learning Analytics Evidence Hub is a place for recording, organising and searching evidence relating to the theory, research and practice of learning analytics and associated educational data mining. It seeks to bring together evidence from across the globe to support or contest the effectiveness of learning analytics in the schools / compulsory education, higher education and workplace sectors. Guiding questions and tools are available to help users frame, categorise and interpret the evidence. The Evidence Hub is available at [http://evidence.laceproject.eu/](http://evidence.laceproject.eu/). It is hosted by The Open University as a separate Wordpress instance.
7. Writing and Design Guidelines

About This Section
In order to ensure that content provided on the LACE web site is of high quality the LACE project team have developed a series of writing guidelines and documented the editorial processes. The LACE outputs (web site content, reports, presentations, etc.) will conform to the LACE design guidelines which can help ensure that the resources have a consistent appearance across various media.

Blogging Guidelines - Main Site LACE blog

Background and Rationale
The LACE project aims to bring together communities of practice across Europe to share emerging knowledge and innovative ideas in learning analytics and educational data mining. The LACE blog on the LACE project web site will provide a key means of spreading knowledge and ideas, as developed by partners and captured from the community. The focus of the LACE blog will be on practical information that can easily be applied across contexts. Posts may include reports from events, reflections on emerging practices from different communities, synthesis of new developments, analysis of successes and failures, etc.

Style and Post Titles
The LACE project aims to foster the exchange of ideas and support wider discussion around learning analytics. This has implications for the content, headlines/titles and style. Blog posts cover a range of topics such as:

- Reports from meetings and webinars.
- Discussion and analysis of recent publications.
- Commentary on recent developments.
- News and announcements about the project.

Opening paragraphs should capture the essence of the idea and allow the reader to quickly assess whether they are the intended audience. Care should be taken to ensure that the opening paragraph contains relevant keywords; these assist with Search Engine Optimisation as well as helping readers. Authors should take particular care with titles of posts as these will be replicated across twitter. Titles should be relatively short and clearly indicate the subject of the post, and where possible refer to learning analytics. The LACE project should always be referred to in the body of the post. Titles should be in title case, where the first letter of each word is capitalised (e.g. Webinar Series on Learning Analytics Interoperability).

The style and tone of posts should be discursive to invite comment. An informal, but not a “chatty”, style with clear language and freedom from jargon or hyperbole is to be preferred. News posts should be written in the third person but avoid academic ways of expressing things as well as avoiding dense language or complex argument. Reports from events will generally be written in the first person.
Length
LACE blog posts should be reasonably short in length, no more than 1,500 words and aim to enable the reader to quickly grasp the subject of the post.

Frequency
In order to maintain interest, and to provide a well-rounded resource, between 50 and 80 blog articles are expected to be published over the lifetime of the project. That equates to between seven and ten posts per year from each of WP4-7, which are the principal content-generating WPs. It is intended that these articles will stimulate further discussions, either as comments on the LACE blog, in blog posts elsewhere, or on Twitter.

Links
Authors should link to other web resources from their posts as links to relevant blog posts in the wider LA/EDM community are likely to cause a “ping-back” and attract their interest. Links to topically-relevant pages will also cause posts to be more readily discovered due to higher ranking in web search.

Publishing Process
On request, each member of the LACE team will be given a Wordpress username and password for the LACE web site and author access rights. In addition some LACE project team members will get a separate username and password for the Tech Focus blog. There are two user types for the LACE and Tech Focus Blogs, editor and author. Most LACE project team members will have author status. Work package leaders will be added to the site as “editors”.

Authors should log onto the LACE site with their username and password. Authors will be responsible for the content of the post, its accuracy and grammar. As editors, each work package leader is responsible for a pre-publication check of the content and grammar of posts by contributors in their work package. Editors will be able to publish posts when they are ready, or to schedule publication at a later date if that will increase impact. Cetis staff (WP2) may make minor changes to the post after publication to correct typographical errors and grammar.

Posts must use categories to ensure that the post appears on the correct page of the LACE project site. The categories are:

- Schools
- Workplace
- Higher education
- Interoperability
- General

The categories are fixed; authors should use tags to create appropriate labels to associate the post with relevant events and themes.

Project Announcements
A generic account will be used to publish news items about forthcoming papers and events. This account will be managed by Cetis staff (WP2).
Learning Analytics Review Guidelines
This section outlines the guidelines for authors of papers in the Learning Analytics Review. Through the lifetime of the project the review articles are intended to become a series of peer reviewed papers on learning analytics and educational data mining that are referenced widely by the community.

Location
The Learning Analytics Review is located at [http://www.laceproject.eu/learning-analytics-review/](http://www.laceproject.eu/learning-analytics-review/)

Format and audience
The extended articles are aimed at an international audience who are interested in how developments in learning analytics are likely to impact on the LACE communities in the next 2-5 years, and who want to know what should be done as a consequence. The articles will use the LACE word template and will have more longevity than the LACE blog posts and Tech Focus blog posts published on the LACE web site. The extended articles will be thorough, well constructed and argued with appropriate references and will go through an internal review process. The audience will be people who want to make decisions about what they are going to do in respect of learning analytics. While they will be of an authoritative and scholarly character, they will generally be white papers rather than research papers and will typically be of intermediate size (3,000-5,000 words). The Cetis Analytics Series can be used as a guide for authors of the writing style for the extended articles.

Requirements
- Articles should be written in English.
- Articles will be 3,000-5,000 words in length.
- Authors should distinguish between sources that are part of the evidence base and sources that are supplementary information.
- In the text, evidential sources should use the Harvard system (author surname and year of publication e.g. Barneveld et al. 2012). The citation should be associated with a full bibliographic reference at the end of the article (see components of an extended article).
- Reference to examples other than evidential sources or supplementary information should use footnotes and should be exclusively resources that are available on the public web.
- Acronyms and technical terms used should be included in a glossary. Glossary terms should be added to (and reused from) a unified glossary (a Google doc or wiki page) across all the various work items in addition to the relevant terms appearing in the report.
- Authors will be responsible for accuracy, relevance, readability of their articles
- Authors are required to review content with project partners and peers prior to submission.

Components of Review papers
In order to ensure that Learning Analytics Review articles are consistent we have identified the following common components which Learning Analytics Review articles should normally contain:

1) Title and author(s)
2) Up to 6 keywords
3) Executive Summary, a succinct summary of the main findings (no more than one page).

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28 See [http://publications.cetis.ac.uk/c/analytics](http://publications.cetis.ac.uk/c/analytics)
4) Introduction, a brief description of the scope of the paper and why it is important.
5) Main body
6) Conclusion/Summary
7) Glossary
8) References, a fully referenced list of the evidence base used in the construction of the report
9) Author details, around 100 words to indicate the author’s credentials.
10) Acknowledgements
11) Copyright (retained by author’s institution or individually) and licence (Creative Commons Attribution 4.0) declaration.

The Microsoft Word template, which contains place-holders for many of the specified components in addition to a common visual style, should be used by authors.

Production
Articles should be of publishable quality with all tables, diagrams and text delivered in digital format with minimal use of Microsoft Word styles. A Microsoft Word template is available and is the preferred form of submission.

Authors are responsible for gaining permission to use any diagrams belonging to others in their papers but authors may wish to include images under a presumption of “fair use”. Intellectual property must always be acknowledged. Diagrams etc. should usually have an associated caption.

Articles should be suitable for an international audience with a wide range of backgrounds. They should be written in clear, plain English avoiding unnecessary jargon and acronyms.

Articles should contain material of substance and not merely be a compilation of available materials. Articles should not contain unwarranted or unjustified assertions. Any assertions about technology developments or impacts should be based on evidence, independent analyses or sound reasoning.

Frequency and Number of Downloads
It is the intention that between 12 and 20 extended articles will be published in the Learning Analytics Review. The aim is to have in excess of 15,000 views of the articles in the Learning Analytics Review and, over time, a strong ranking on citation tools such as Google Scholar.

Editorial process
An outline of the process for publishing Learning Analytics Review papers is as follows:

• Agree title and publication date
• Add the title to the Review Publishing Schedule
• Authors to circulate draft to editor and work package team
• Copy editing and peer review
• Editor to apply template and make final edits
• Publish
• Press release, tweets, announcement and publicity.
Introduction to the Templates

Our approach to templates is to provide an initial set, rather than a complete set. Over time, we hope to increase the number of templates available, based on what partners produce. For example, if someone creates a conference poster, we would like them to add a template based on the layout they used. We also expect that variation templates will be created.

Creating New Templates and Variants

Partners are to use the base template as a starting point if possible. Otherwise, they should try to follow a similar pattern as the base templates. If creating a new template, the official LACE graphics and the colours and fonts defined in the zip file of graphics should be used taking the smallest file that gives good resolution for the intended use. The specifics of the visual brand are given in the Appendix 4 on “Elements of the Visual Brand”.

Use of the Microsoft Word Template

The base template has been created primarily for the white papers that will comprise the Learning Analytics Review and for the numbered deliverables in the DoW. For other uses, some sections may not be relevant, for example a table of contents or references section. Simply delete these; it will probably not be helpful to create a new template.

Please use the following features of the template:

1) Microsoft Word “fields” that are linked to document metadata for: author (and organisation), company (which is set to be Learning Analytics Community Exchange), publication date, keywords, abstract, title, and subtitle. This data is propagated to be document properties in exported PDF, epub3, etc., and is useful for search engine optimisation.

2) Headings are primarily structural elements, with style defined for them, i.e. when you choose “Heading 1” from the pre-defined styles, it will automatically appear in the table of contents and as a bookmark in an exported PDF file. It is useful for search engine optimisation and accessibility. Use the pre-defined styles rather than manually setting the appearance by changing font size, colour, and style as this will assure consistent appearance as well as capturing the structure of the document in a machine-readable form.

3) Use the Microsoft Word “Insert Caption” feature for tables and figures, which allows for automatically-updated index numbers and a table of figures to be inserted below the Contents, if desired. Where possible use the “Cross-reference” feature to refer to tables and figures since this generates auto-updating references that are not made invalid if earlier figures are inserted or removed at a later time.

For deliverables:

- Use the sub-title to designate the deliverable number.
- Add document version/revision information and sign-off to the “About...” section.
Use of the Microsoft PowerPoint Template

The Microsoft Powerpoint template used for creating slideshows contains several different slide layouts and should support different approaches to the use of slides. Users of the template are encouraged to express their approach and style. There is no presumption of absolute conformity to the template. Examples: for webinars or deposit of slides online, the presenter may wish to add their photograph; presenters may wish to re-organise, re-scale, or re-align the title page to allow a graphic or photograph as the major visual element. There is also no placeholder for other logos - e.g. organisation, the conference, etc. - but these may be added according to requirements.

Microsoft PowerPoint does not support the updating fields for title, author, etc. that are available in Microsoft Word, so the information entered on the title page (shown below) does not automatically add entries in the document metadata. Prepare | Document Properties should be used to add metadata for author, title, and keywords.
Figure 7.2: The default layout of the slides title page

The slide deck should indicate the authorship, copyright, licence and acknowledgements, as in the final slide of the template as shown in Figure 7.3.

Figure 7.3: The standard final slide
8. Sustainability Planning

About This Section
This section addresses the question of how to sustain the impact of EC funding of LACE by first exploring what we understand by “sustained impact”, followed by clarifying what the intended project assets are that would underpin this effect and finally by describing the actions that, at the various stages of LACE, will have a positive effect.

Intentions - What do we Mean by Sustainability
LACE sets out to deliver impact over a much longer period of time than the project itself, both directly arising from its outputs and also indirectly from other initiatives that arise from, or are partially underpinned by, LACE. Even though the impact of LACE will diminish over time, the sum of this follow-on impact could conceivably exceed that accrued during the project. We will seek to minimise drop-off and so maximise total impact; this is what we mean by “sustainability”. According to this understanding, the continued existence of LACE as a brand is not the aim; it is only valuable so long as it supports the cause of impact.

Project Assets
LACE will develop assets that could be described as tangible (although digital) and intangible. The direct, tangible, assets will comprise a number of outputs as specified in the description of work:

- Extended Studies (Learning Analytics Review)
- Scenarios
- The Evidence Hub
- LA & EDM Evaluation Framework
- Visions of the Future
- Structural-semantic studies
- Tech Focus Blog
- LACE blogs
- Studies on interoperability
- A consensus document, core elements and mappings (targeted at the pre-standardisation process)
- Data sharing platform roadmap
- LACE Compendium
- Slidedecks used by team members

To some degree, the ubiquitous use of internet indexing and search engines means that a substantial element of sustainability derives from a persistent web presence. This will be aided by a technical approach that requires low levels of effort to maintain it. This is likely to be sufficient for a few years after the project finishes but changes in organisational structure of the partners is a potential risk; the ability to easily transfer responsibility would be important if such changes occur. Furthermore, as the LACE outputs get older, some will become less relevant. As this happens, discoverability may be aided by some of the assets being absorbed into another entity. The priorities for tangible assets are:

- Use a minimally-complex and maintainable technical approach to the web site.
• Engage other communities and initiatives in co-creation, to build a sense of shared ownership.
• Ensure that the assets are transferable post-project, either among partners or to third parties, and develop relationships with organisations that might be a long-term home.

Note that liaisons with projects and initiatives with known limited lifetime is not a good approach to sustainability, although such liaisons may be important for shorter-term impact.

Intangible assets will derive from the connections between people that LACE facilitates. These will:

• Be between similar people for whom LA/EDM is an emerging topic; they will converge around a sense of needing to understand the topic in their context.
• Be between dissimilar people. It is our stated aim to increase dialogue and understanding between research, practice, institutional IT and supplier perspectives.

History shows us that this social capital is neither easily measured nor easily designed and managed; some communities dissolve when a supporting agent is no longer present, while others persist. Our working hypothesis is that working to enhance existing communities is the least risky strategy for LACE. Sustainability of intangible assets will be aided by providing facilities to self-organising groups (e.g. publicity, support materials, and an outlet for communications) with a view to fostering a long term distributed network of communities.

**Project Knowledge and Expertise**

In addition to the assets which are managed by the project, sustainability is also affected by the knowledge and expertise possessed by members of the LACE project team. In order to minimise the risks associated with loss of in-house expertise we are taking the following steps:

• Use of mainstream tools, services and file formats which will not require specialist knowledge to manage.
• Record-keeping for key sources of information (e.g. account information for third party services used).
• The Compendium supports the sustainability of the LACE project by ensuring that documentation is provided so that knowledge of the approaches taken to user engagement and dissemination is available and widely shared.
• The project Risk Register addresses the risks of loss of project knowledge and expertise as well as risks associated with loss of tools and services used by the project.

**Risk Register**

A Risk Register has been produced for the project in order to ensure that risks which may affect the sustainability of the project and the project assets are identified together with strategies for minimising such risks. The Risk Register will be reviewed on LACE conference calls in order to ensure that a comprehensive overview of the risks is provided and satisfactory risk minimisation strategies are provided.

**Third Party Services**

The risks associated with the third-party tools and services that are used to support LACE’s user engagement and dissemination activities are summarised below.
In-house Services
The risks associated with the tools and services managed by the LACE project team that are used to support LACE’s user engagement and dissemination activities are summarised below.

<table>
<thead>
<tr>
<th>Area</th>
<th>Risks</th>
<th>Level</th>
<th>Risk mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>WordPress</td>
<td>Loss of software</td>
<td>Low</td>
<td>Wordpress is mature open source software</td>
</tr>
<tr>
<td></td>
<td>Problems with Wordpress plugins / themes</td>
<td>Low</td>
<td>We are using mainstream plugins and themes</td>
</tr>
<tr>
<td></td>
<td>Large amount of spam shown</td>
<td>Low</td>
<td>We use the Akismet spam filter which is very effective in blocking spam comments.</td>
</tr>
<tr>
<td>Hosting</td>
<td>Problems encountered with</td>
<td>Low</td>
<td>Accept</td>
</tr>
</tbody>
</table>

---

29 See http://ukwebfocus.wordpress.com/2013/10/01/your-slideshare-account-has-been-suspended/
agency | web site hosting agency.  
--- | ---  
Web content | Problems encountered in providing a long-term archive.  
Level | Low  
| | Develop and implement a process for testing a web archiving strategy  

Table 8.1b: Risk register for services managed by project team

**Non-technical Risks**
The non-technical risks for the LACE project are summarised below.

<table>
<thead>
<tr>
<th>Area</th>
<th>Risks</th>
<th>Level</th>
<th>Risk mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loss of key staff</td>
<td>Key staff leave the project</td>
<td>Medium</td>
<td>Accept: project documentation will aim to ensure that knowledge is not lost if staff leave</td>
</tr>
<tr>
<td></td>
<td>Key staff are unwell</td>
<td>Low</td>
<td>Accept: unlikely</td>
</tr>
<tr>
<td></td>
<td>Key staff move to other projects</td>
<td>Low</td>
<td>Accept: LACE project is a significant area for the project partners</td>
</tr>
</tbody>
</table>

Table 8.1c: Risk register for non-technical areas

**Actions for Sustainability**
The following list summarises the actions initiated during the first year of the project:

**Underway or Achieved January-December 2014**

1) Establish a web presence using commodity open source software (Wordpress and well-maintained mature plugins and themes) to minimise the need for ongoing maintenance.
   Updates are typically either automatic or single-click. Custom developments are being avoided.
   The aim is to minimise the barrier to keeping the web site running and updateable for at least 5 years after project end. (WP2)
2) Acquired a 10 year lease on the laceproject.eu internet domains. (WP2)
3) Use commodity cloud hosting. (WP2)
4) Develop a Network and Associates Strategy to clarify the “ask and the offer”. (WP1)
5) Developing the infrastructure (using LinkedIn Groups) to support self-organised groups. (WP2)
6) Begin to develop relationships with key contact people and organisations.
   a) WP5 met with Gartner in relation to the Man.Tr.A (Manufacturing Training Analysis), in order to calibrate the approach and to position Man.Tr.A as a long term contribution.
   b) WP6 has existing strong links with SoLAR (the Society for Learning Analytics Research).
   c) The Open Learning Analytics Network, being developed by SoLAR and the Apereo Foundation (an umbrella organisation for academic open source software), has open standards and data sharing as central themes.

**Priorities for 2015**
The following list summarises the priorities for actions to be in 2015:

1) Prioritise strategic associations and check for balance and coverage. Establish clear liaison roles in LACE. (WP8)
2) Strengthen links with standardisation bodies, both to influence their workplans and to develop pathways for LACE outputs. (WP7)
3) Develop and validate plans for long-term archiving of content on LACE web site (see below).
### Plans for Web Archiving

The following table summarises plans for the validation and the implementation of the plans of archival of the content of the web site. The plans are based on previously web site archival work carried out by Cetis staff.

<table>
<thead>
<tr>
<th>Area</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Validation Phase</strong></td>
<td></td>
</tr>
<tr>
<td>1 Audit web site</td>
<td>A report will be provided on the size of the web site and resources hosted (see Appendix 9).</td>
</tr>
<tr>
<td>Document technologies used</td>
<td>Technologies which cannot be easily used on a static mirror of the content will be documented</td>
</tr>
<tr>
<td>Identify problem areas and seek to fix</td>
<td>Problems identified during the audit will be identified and fixes to the problems will be sought.</td>
</tr>
<tr>
<td>2 Mirror web site content</td>
<td>A static copy of the web site will be mirrored to another server</td>
</tr>
<tr>
<td>3 Archive content with national archive</td>
<td>Contact made with a national web archiving service made in order to ensure that an archive can be made.</td>
</tr>
<tr>
<td></td>
<td>Initial web archive created.</td>
</tr>
<tr>
<td><strong>Final Phase</strong></td>
<td></td>
</tr>
<tr>
<td>4 Audit web site</td>
<td>A report will be provided on the size of the web site and resources hosted (see Appendix 9).</td>
</tr>
<tr>
<td>Document technologies used</td>
<td>Technologies which cannot be easily used on a static mirror of the content will be removed and documentation provided on the web site/</td>
</tr>
<tr>
<td>Identify problem areas and seek to fix</td>
<td>Problems identified during the audit will be identified and fixes to the problems will be sought.</td>
</tr>
<tr>
<td>5 Mirror web site content</td>
<td>Static copy of the web site mirrored to another server</td>
</tr>
<tr>
<td>6 Archive content with national archive</td>
<td>Contact made with a national web archiving service made in order to ensure that an archive can be made.</td>
</tr>
<tr>
<td></td>
<td>Final web archive created.</td>
</tr>
</tbody>
</table>

Table 8.2: Plans for web archiving
Appendix 1: Summary of the LACE Web Site Architecture

This section gives an overview of the LACE web site and how it is administered.

Site Structure and Location
The LACE project web site is located at www.laceproject.eu. The site is an auto-install of Wordpress on a hosted service and has a multi-site installation for administration and configuration of the main areas: the LACE project web site and blog, the Tech Focus blog and the Learning Analytics Review.

The structure and content will evolve over time, as the quantity and variety of content increases. We will strive to ensure that URLs continue to work and that the navigation remains consistent.

Front Page, Call to Action and Widgets
The front page provides a snapshot of LACE activities by aggregating current news and live data from project sources. The layout of the home page is shown in Appendix 5.

The top half of the page is the call to action space which changes on a regular basis throughout the lifetime of the project to announce new publications, events and activities. Below the call to action space are a number of widgets for events, news, Twitter mentions of the #laceproject hashtag and a sign up to receive announcements. The events widget uses the Lanyrd tool to provide information about relevant events.

Site Menu
The top level menu structure for the LACE site is based around sector information, principally the sector or work package areas. A second level menu will be used to point to various self-contained components, including the Learning Analytics Review, the Tech Focus blog and the Evidence Hub.

Sector Pages
The Schools, Workplace, Universities and Interoperability and Data areas of the site gather together sector specific information. On each of these pages an introduction sets out the importance of learning analytics in that sector. Below the sector overview is the latest blog post for that area. The posts from the main LACE blog use categories to ensure they appear on the correct pages (Schools, Workplace, Universities and Interoperability).

News
Some LACE blog posts apply across sectors, these posts are tagged with the “General” category and will only appear under the News menu item.

Tech Focus blog
The Tech Focus blog is intended for those who may wish to experiment with code and statistical analysis packages. All LACE team member can post to this blog.

The Learning Analytics Review
This is where the main extended papers are published (http://www.laceproject.eu/learning-analytics-review/). The Learning Analytics Review papers are intended to be widely cited by the community. The Learning Analytics Review site is a Wordpress instance using existing plugins to extend functionality.
Appendix 2: URI Naming Policies

Based on the design criteria summarised above the following table documents the naming conventions for key areas on the LACE web site which host a collection of related items.

<table>
<thead>
<tr>
<th>Area</th>
<th>Name</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Blog posts</td>
<td>/blog/</td>
<td>Meaningful, memorable and brief.</td>
</tr>
<tr>
<td>2 Tech Focus blog posts</td>
<td>/tech/</td>
<td>Meaningful, memorable and brief.</td>
</tr>
<tr>
<td>3 LACE deliverables</td>
<td>/deliverables/</td>
<td>Meaningful, memorable and brief.</td>
</tr>
<tr>
<td>4 Learning Analytic Review</td>
<td>/learning-analytics-review/</td>
<td>Meaningful, memorable although slightly long.</td>
</tr>
<tr>
<td>5 FAQs</td>
<td>/faqs/</td>
<td>Meaningful, memorable and brief.</td>
</tr>
</tbody>
</table>

Table A2.1a: Naming conventions for key LACE areas

Note that the Evidence Hub is available at the URL [http://evidence.laceproject.eu/](http://evidence.laceproject.eu/). It is hosted by the Open University as a separate Wordpress instance. The Evidence Hub is a dynamic application and will have its own URI naming conventions.

The following table illustrates the naming conventions for items hosted under each of these areas.

<table>
<thead>
<tr>
<th>Area</th>
<th>Examples</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Blog post</td>
<td>/standards-learning-analytics-current-activity-2014/</td>
<td>Meaningful, memorable although slightly long. Publication date not given in URI which could cause naming clashes.</td>
</tr>
<tr>
<td></td>
<td>/master-class-learning-analytics-visualisation-data/</td>
<td></td>
</tr>
<tr>
<td>2 LACE deliverables</td>
<td>/d1-1-lace-compendium/</td>
<td>Contains deliverable number and brief summary. Meaningful, memorable and brief.</td>
</tr>
<tr>
<td></td>
<td>/d3-1-framework-quality-indicators/</td>
<td></td>
</tr>
<tr>
<td>3 Learning Analytic Review</td>
<td>/measuring-and-understanding-learner-emotions/</td>
<td>Meaningful, memorable although slightly long.</td>
</tr>
<tr>
<td>paper</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 FAQ</td>
<td>/what-are-learning-analytics/</td>
<td>Meaningful, memorable although slightly long.</td>
</tr>
</tbody>
</table>

Table A2.1b: Naming conventions for key LACE items

The notes field summarises how well the naming convention satisfies the design criteria and highlights possible concerns as the numbers of resources hosted in the web site grows.
Naming Conventions for Other File Types

In addition to native HTML files the LACE web site also hosts a growing number of PDFs: the file format used for Learning Analytic Review articles, LACE deliverables, etc. The following table summarises the naming conventions for such items. This includes the naming conventions and procedures for managing updates to such documents after they have been published.

<table>
<thead>
<tr>
<th>Resource</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 LACE Compendium (D1.1)</td>
<td><a href="http://www.laceproject.eu/deliverables/d1-1-lace-compendium.pdf">http://www.laceproject.eu/deliverables/d1-1-lace-compendium.pdf</a></td>
</tr>
<tr>
<td>2 Framework of Quality Indicators (D3.1)</td>
<td><a href="http://www.laceproject.eu/deliverables/d3-1-framework-quality-indicators/">http://www.laceproject.eu/deliverables/d3-1-framework-quality-indicators/</a></td>
</tr>
</tbody>
</table>

Table A2.2: Naming conventions for current LACE deliverables

There will be a need to develop plans for managing the URI naming conventions if documents are updated after publication. Note that although new versions of document could be published with a new URI, users who following existing links to PDFs will not be aware of the existence of updated versions of resources. The policy is therefore:

**Minor updates will be noted in the document and the updated version will use the initial URI.**

Significant updates will have a new URI and the HTML page hosting the report will provide information about the changes. The original PDF file will be updated so that it contains a watermark stating that an updated version is available.

**Naming Conventions for Images**

Images are used on the LACE web site, such as in blog posts. The best practices for URI naming conventions to assist discovery also apply to image resources. However in practice it is unlikely that users will have a specific interest in the majority of images hosted on the web site. Since renaming images will require manual intervention it is not envisaged that the filenames for the majority of images will be changed. An exception may be in the case of images such as infographics where it may be desirable to make such images easier to find using tools such as Google image search.
Appendix 3: Naming Conventions for Personalised Bit.ly Links

The bit.ly link shortening service is used for Twitter announcements of significant new resources as this service provides metrics on how such links are shared. In order that such metrics can be easily found rather than using the default random name personalised names are created. The following table summarises the key personalised bit.ly links which have been created to date.

<table>
<thead>
<tr>
<th>Area</th>
<th>URI</th>
<th>Bit.ly link</th>
</tr>
</thead>
</table>

Table A3.1: Naming conventions for key LACE content areas

The following table summarises bit.ly links for specific resources.

<table>
<thead>
<tr>
<th>Resources</th>
<th>URI</th>
<th>Bit.ly link</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LACE Deliverables</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bit.ly convention: lace-delivery-code-meaningful_summary</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Learning Analytics Review Articles</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bit.ly convention: lace-review-number</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>LACE FAQs</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bit.ly convention: lace-faq-meaningful_summary</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table A3.2: Naming conventions for bit.ly links for key LACE content items

Note that many of the personalised bit.ly links were created on 7 January 2015, sometime after the resources had been created. However it is intended that tailored short links for new resources will be created using the naming convention described when the resources are first shared on Twitter.

Also note that a list of personalised bit.ly links is available at https://bitly.com/bundles/briankelly/6
Appendix 4: Elements of the Visual Brand

The LACE Logo

The LACE logo is comprised of the following elements:

- The primary brand colour is a dark green, #42662B (R:66, G:102, B:144).
- The secondary colour is blue/purple, #596090 (R:89, G:96, B:144).
- The word LACE in the primary colour is of font face “Futura”.
- A graphical element to indicate community/network/sharing uses the secondary colour.
- Text is normally black in either Calibri (Windows) or Myriad Pro (Mac) font face. Calibri is preferred if it is available.
- Grey text may sometimes be used, #575757 (R:87, G:87, B:87), but only in larger font sizes.

The preferred form of the logo is shown in Figure A4.1. It may be scaled down to small sizes, as in the header of this document. Since the meaning of “LACE” is not clear in the logo, the expansion “learning analytics community exchange” should be prominent, as on the title page of this document.

An alternate form of the logo is shown in Figure A4.2. This version should be used when it is necessary to explain the LACE acronym as part of the logo. It should only be used in relatively large sizes.

Graphics Files and Intended Use

The following files are in the folder “LACE Official Graphics”:

- LACElogo 325x196.png – moderately large file for document and web use
- LACElogo annotated.eps – not for normal use; this indicates the colours and font faces
- LACElogo.eps – a vectorised image, not for normal use. Use this to create new images at different levels of resolution or in differing formats.
- LACEppt-cover.png – the image as used in the slides template.
- LACEppt-small.png – a reduced size image
- LACEweblogo padded.png – a version of the logo for use on the web where some padding above and below the logo is necessary for good layout
- LACEweblogo.png – a compact image for use on the web, for example in a page header
LACE Associates - Template of a Letter of Intent

(A reciprocal letter from LACE would comprise the other half of the informal agreement)

::<Institutional Logo>

TO: Open University of the Netherlands
Dr. Hendrik Drachsler
Valkenburgerweg 177
6419 AT Heerlen
The Netherlands
Tel: +31.45.576.2218

FROM: Organisation
Contact Person name
Address
Phone
Email
Web site

Letter of intent for collaboration in support for the “Learning Analytics Community Exchange (LACE)” support action

Dear Hendrik,

The xxxx Laboratory, institute, team agrees to contribute to the uptake of the research potential of the LACE support action by forming a strategic partnership for research collaboration. Our contribution will comprise the following:

• Contribute to the sector activities of the LACE project.
• Participation in at least two workshops during the project to facilitate the transfer of knowledge.
• Participation in and promotion of the LACE dissemination actions.
• Providing advice and participation in joint activities and meetings.
• INDIVIDUAL ACTIONS (use cases, data contribution, platform contribution etc.)

We are looking forward to advance even further the mutual research interest of our organizations.

Sincerely,
Appendix 5: Design of the LACE Project Home Page

The layout of the home page of the LACE project web site is shown in Figure A5.1. It should be noted that the design has evolved since the initial launch of the web site in response to comments on the design and the growth in the range of content accessible via the web site.

![Project home page (13 January 2015)](image)
Appendix 6: Learning Analytics Review

In the project plan we refer to the “LACE Review”, a series of extended and peer-reviewed white papers. In order to avoid confusion with the review of the LACE project the term “Learning Analytics Review” has been adopted for public presentation. The Learning Analytics Review is a micro-site within the LACE web presence and has its own internal navigation structure and some different page elements. The Learning Analytics Review is available at http://www.laceproject.eu/learning-analytics-review/ A screenshot (captured on 13 January 2014) is shown below.

Figure A6.1: Screenshot of the Learning Analytics Review
### Appendix 7: Key Tools and Services

The main tools and services that are used to support LACE’s user engagement and dissemination activities are summarised below.

<table>
<thead>
<tr>
<th>Tool</th>
<th>Main Role(s)</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Web site</td>
<td>Content aggregation</td>
<td>Hosts content and provides access to other services used by the LAE project.</td>
</tr>
<tr>
<td>Twitter</td>
<td>Engagement; dissemination</td>
<td>@laceproject account focusses on learning analytics and LACE-related work.</td>
</tr>
<tr>
<td>Blogs</td>
<td>Dissemination</td>
<td>LACE project blog provide a mechanism for dissemination, although commenting is normally provided. LACE team members may wish to use their own blogs to publish information about LACE activities.</td>
</tr>
<tr>
<td>Slideshare</td>
<td>Hosting</td>
<td>Slideshare is used to host slides on a platform which supports embedding the content in blogs &amp; web sites.</td>
</tr>
<tr>
<td>LinkedIn</td>
<td>Engagement; dissemination</td>
<td>LACE team members are encouraged to publish information about their LACE activities on their LinkedIn profile...</td>
</tr>
<tr>
<td>Dlvr.it</td>
<td>Dissemination</td>
<td>Provides automated Twitter announcement of new blog posts.</td>
</tr>
<tr>
<td>Twubs</td>
<td>Archiving</td>
<td>Simple archive of #laceproject tweets.</td>
</tr>
<tr>
<td>TAGS</td>
<td>Archiving</td>
<td>Richer archive of #laceproject tweets.</td>
</tr>
<tr>
<td>Storify</td>
<td>Archiving</td>
<td>Curated archive of tweets (e.g. at events).</td>
</tr>
<tr>
<td>Bit.ly</td>
<td>Reporting</td>
<td>Analytics of Twitter links.</td>
</tr>
<tr>
<td>Topsy</td>
<td>Reporting</td>
<td>Analytics of Twitter links and archive of tweets.</td>
</tr>
<tr>
<td>Lanyrd</td>
<td>Information / community</td>
<td>Provides a social directory of learning analytics events.</td>
</tr>
<tr>
<td>Google Hangout</td>
<td>Dissemination</td>
<td>Used for hosting webinars.</td>
</tr>
<tr>
<td>YouTube</td>
<td>Dissemination</td>
<td>Used to archive video recordings of webinars.</td>
</tr>
<tr>
<td>SurveyMonkey</td>
<td>Evaluation</td>
<td>Online evaluation service used for events</td>
</tr>
</tbody>
</table>

Table A7.1: Main tools to support user engagement and dissemination activities
Appendix 8: SEO Audit

The Need for SEO Audits
SEO (search engine optimisation) audits are carried out periodically in order to ensure that the web site SEO strategies are effective and to monitor trends.

Findings From Audits Using MajesticSEO
The MajesticSEO service was used on 15 April 2014 to provide details of links to the LACE project web site. The findings are given below.

Top Referring Domains
The following table lists the top 10 domains which have links to the LACE project web site.

<table>
<thead>
<tr>
<th>Ref. No.</th>
<th>Referring Domains</th>
<th>Backlinks</th>
<th>Alexa Rank</th>
<th>Flow Metrics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Trust Flow</td>
</tr>
<tr>
<td>1</td>
<td>cetis.ac.uk</td>
<td>134</td>
<td>346,969</td>
<td>25</td>
</tr>
<tr>
<td>2</td>
<td>blind-planet.com</td>
<td>39</td>
<td>N/A</td>
<td>11</td>
</tr>
<tr>
<td>3</td>
<td>e-paideia.org</td>
<td>38</td>
<td>N/A</td>
<td>21</td>
</tr>
<tr>
<td>4</td>
<td>e-paideia.net</td>
<td>13</td>
<td>N/A</td>
<td>26</td>
</tr>
<tr>
<td>5</td>
<td>theia.org.uk</td>
<td>12</td>
<td>N/A</td>
<td>18</td>
</tr>
<tr>
<td>6</td>
<td>laceproject.info</td>
<td>9</td>
<td>N/A</td>
<td>14</td>
</tr>
<tr>
<td>7</td>
<td>janhylen.se</td>
<td>8</td>
<td>N/A</td>
<td>14</td>
</tr>
<tr>
<td>8</td>
<td>inserver.es</td>
<td>7</td>
<td>N/A</td>
<td>13</td>
</tr>
<tr>
<td>9</td>
<td>douglow.org</td>
<td>6</td>
<td>N/A</td>
<td>21</td>
</tr>
<tr>
<td>10</td>
<td>open.ac.uk</td>
<td>3</td>
<td>8,800</td>
<td>78</td>
</tr>
</tbody>
</table>

Table A8.1a: Top 10 Referring domains with links to LACE web site (April 2014)

Noted that the Cetis domain contains the largest numbers of links. In addition the Cetis and the Open University (UK) domains are the only web sites in this list with a significant Alexa rank.

In order to improve the Google ranking for the LACE web site in a series of structured interviews with LACE team members held in autumn 2014. It was recommended that LACE project partners seek to enhance the numbers of links from their organisational domain.

The MajesticSEO service was used again on 6 January 2015 following the request for additional links to the LACE web site. The findings are shown below.

<table>
<thead>
<tr>
<th>Ref. No.</th>
<th>Referring Domains</th>
<th>Backlinks</th>
<th>Alexa Rank</th>
<th>Flow Metrics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Trust Flow</td>
</tr>
<tr>
<td>1</td>
<td>cetis.ac.uk</td>
<td>203</td>
<td>525,972</td>
<td>25</td>
</tr>
<tr>
<td>2</td>
<td>openeducationeuropa.eu</td>
<td>25</td>
<td>258,643</td>
<td>29</td>
</tr>
<tr>
<td>3</td>
<td>janhylen.se</td>
<td>21</td>
<td>N/A</td>
<td>15</td>
</tr>
<tr>
<td>4</td>
<td>surfspace.nl</td>
<td>13</td>
<td>N/A</td>
<td>22</td>
</tr>
</tbody>
</table>
The survey was repeated in January 2015 and the findings summarised in the following table.

### Top Referring Backlinks
The following table lists the top 10 domains which in April 2014 had links to the LACE web site.

<table>
<thead>
<tr>
<th>Ref. No.</th>
<th>URLs</th>
<th>URL Flow Metrics</th>
<th>Domain Flow Metrics</th>
<th>First Indexed</th>
<th>Last Seen</th>
<th>Date Lost</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Source URL: <a href="http://ukwebfocus.wordpress.com/">http://ukwebfocus.wordpress.com/</a></td>
<td>Trust Flow: 36</td>
<td>Citation Flow: 39</td>
<td>Trust Flow: 94</td>
<td>Citation Flow: 94</td>
<td>21 Mar 2014</td>
</tr>
<tr>
<td></td>
<td>Anchor Text: lace project</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Target URL: <a href="http://www.laceproject.eu/">http://www.laceproject.eu/</a></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Source URL: <a href="http://www.theguardian.com/education/2014/">http://www.theguardian.com/education/2014/</a></td>
<td>Trust Flow: 29</td>
<td>Citation Flow: 35</td>
<td>Trust Flow: 86</td>
<td>Citation Flow: 94</td>
<td>03 Apr 2014</td>
</tr>
<tr>
<td></td>
<td>Anchor Text: learning analytics community exchange (lace)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Target URL: <a href="http://www.laceproject.eu/">http://www.laceproject.eu/</a></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Source URL: <a href="http://www.cetis.ac.uk/projects/">http://www.cetis.ac.uk/projects/</a></td>
<td>Trust Flow: 25</td>
<td>Citation Flow: 36</td>
<td>Trust Flow: 25</td>
<td>Citation Flow: 40</td>
<td>06 Apr 2014</td>
</tr>
<tr>
<td></td>
<td>Anchor Text: lace project</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Target URL: <a href="http://www.laceproject.eu/">http://www.laceproject.eu/</a></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Anchor Text: laceproject.eu</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Target URL: <a href="http://www.laceproject.eu/">http://www.laceproject.eu/</a></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Source URL: <a href="http://blogs.cetis.ac.uk/adam/">http://blogs.cetis.ac.uk/adam/</a></td>
<td>Trust Flow: 22</td>
<td>Citation Flow: 30</td>
<td>Trust Flow: 25</td>
<td>Citation Flow: 40</td>
<td>05 Apr 2014</td>
</tr>
<tr>
<td></td>
<td>Anchor Text: learning analytics community exchange</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Target URL: <a href="http://www.laceproject.eu/">http://www.laceproject.eu/</a></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Anchor Text: learning analytics community exchange</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Target URL: <a href="http://www.laceproject.eu/">http://www.laceproject.eu/</a></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Source URL: <a href="http://blog.aus-und-weiterbildung.eu/learn">http://blog.aus-und-weiterbildung.eu/learn</a>...</td>
<td>Trust Flow: 28</td>
<td>Citation Flow: 23</td>
<td>Trust Flow: 27</td>
<td>Citation Flow: 25</td>
<td>19 Mar 2014</td>
</tr>
<tr>
<td></td>
<td>Anchor Text: <a href="http://www.laceproject.eu">http://www.laceproject.eu</a></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Target URL: <a href="http://www.laceproject.eu/">http://www.laceproject.eu/</a></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Source URL: <a href="http://blog.aus-und-weiterbildung.eu/feed">http://blog.aus-und-weiterbildung.eu/feed</a></td>
<td>Trust Flow: 27</td>
<td>Citation Flow: 22</td>
<td>Trust Flow: 27</td>
<td>Citation Flow: 25</td>
<td>02 Apr 2014</td>
</tr>
<tr>
<td></td>
<td>Anchor Text: laceproject.eu</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Target URL: <a href="http://www.laceproject.eu/">http://www.laceproject.eu/</a></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Source URL: <a href="http://dougclow.org/feed/">http://dougclow.org/feed/</a></td>
<td>Trust Flow: 24</td>
<td>Citation Flow: 25</td>
<td>Trust Flow: 21</td>
<td>Citation Flow: 24</td>
<td>02 Apr 2014</td>
</tr>
<tr>
<td></td>
<td>Anchor Text: lace project</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Target URL: <a href="http://www.laceproject.eu/">http://www.laceproject.eu/</a></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Source URL: <a href="http://ukwebfocus.wordpress.com/2014/03/19/">http://ukwebfocus.wordpress.com/2014/03/19/</a></td>
<td>Trust Flow: 21</td>
<td>Citation Flow: 26</td>
<td>Trust Flow: 94</td>
<td>Citation Flow: 94</td>
<td>20 Mar 2014</td>
</tr>
<tr>
<td></td>
<td>Anchor Text: lace project</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Target URL: <a href="http://www.laceproject.eu/">http://www.laceproject.eu/</a></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table A8.2a- Top 10 Referring backlinks to LACE web site (April 2014)

It should be noted that the blogs provided by Cetis, UK Web Focus and Doug Clow (all provided by members of the LACE project team) feature twice in the list of trusted domains containing the largest numbers of links.

The survey was repeated in January 2015 and the findings summarised in the following table.
Once a number of Learning Analytics Review articles have been published we will carry out further SEO audits in order to monitor discoverability of the articles and implement any improvements.

### Evidence From Searches Using DuckDuckGo

SEO analysis tools such as MajesticSEO identify various SEO characteristics. This can be complemented with periodic analyses of the search results from search engines. Use of Google is not ideal since it provides personalised findings. In contrast the DuckDuckGo search engine provides results which are not influenced by previous searches.

<table>
<thead>
<tr>
<th>Ref. No.</th>
<th>URLs</th>
<th>URL Flow Metrics</th>
<th>Domain Flow Metrics</th>
<th>First Indexed</th>
<th>Last Seen</th>
<th>Date Lost</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Source URL: <a href="http://ukwebfocus.wordpress.com/">http://ukwebfocus.wordpress.com/</a> lace project</td>
<td>Anchor Text: lace project</td>
<td>Target URL: <a href="http://www.laceproject.eu/">http://www.laceproject.eu/</a></td>
<td>28</td>
<td>36</td>
<td>92</td>
</tr>
<tr>
<td>2</td>
<td>Source URL: <a href="http://ukwebfocus.wordpress.com/">http://ukwebfocus.wordpress.com/</a> lace (learning analytics community exchange) project</td>
<td>Anchor Text: lace (learning analytics community exchange) project</td>
<td>Target URL: <a href="http://www.laceproject.eu/">http://www.laceproject.eu/</a></td>
<td>28</td>
<td>36</td>
<td>92</td>
</tr>
<tr>
<td>3</td>
<td>Source URL: <a href="http://ukwebfocus.wordpress.com/">http://ukwebfocus.wordpress.com/</a> lace project</td>
<td>Anchor Text: lace project</td>
<td>Target URL: <a href="http://www.laceproject.eu/">http://www.laceproject.eu/</a></td>
<td>28</td>
<td>36</td>
<td>92</td>
</tr>
<tr>
<td>8</td>
<td>Source URL: <a href="http://www.kennisnet.nl/diensten/kennisnet-fede">http://www.kennisnet.nl/diensten/kennisnet-fede</a>... lace project</td>
<td>Anchor Text: lace project</td>
<td>Target URL: <a href="http://www.laceproject.eu/">http://www.laceproject.eu/</a></td>
<td>27</td>
<td>22</td>
<td>60</td>
</tr>
<tr>
<td>10</td>
<td>Source URL: <a href="http://www.janhylen.se/">http://www.janhylen.se/</a> lace project</td>
<td>Anchor Text: lace project</td>
<td>Target URL: <a href="http://www.laceproject.eu/">http://www.laceproject.eu/</a></td>
<td>23</td>
<td>26</td>
<td>15</td>
</tr>
</tbody>
</table>

Table A8.2b: Top 10 Referring backlinks to LACE web site (January 2014)

### Future SEO Audits

Once a number of Learning Analytics Review articles have been published we will carry out further SEO audits in order to monitor discoverability of the articles and implement any improvements.
Appendix 9: Link Checking For the LACE Web Site

In order to monitor the structural integrity of the LACE web site a link-checker is used. The main aim is to ensure that there are no significant internal broken links or, if such links are found, their existence will be documented and, if possible, fixed. The link check will also provide statistics on the numbers of external links. However since the persistence of externally-hosted web resources is beyond the control of the LACE team and maintenance of broken links will be resource-intensive there is no guarantee that broken links to external resources will be fixed. The Xenu link checker was used. The following table gives a summary of the findings

<table>
<thead>
<tr>
<th>Status</th>
<th>Nos. of URLs</th>
<th>% of URLs</th>
</tr>
</thead>
<tbody>
<tr>
<td>ok</td>
<td>737 URLs</td>
<td>64.37%</td>
</tr>
<tr>
<td>skip external</td>
<td>405 URLs</td>
<td>35.37%</td>
</tr>
<tr>
<td>forbidden request</td>
<td>1 URLs</td>
<td>0.09%</td>
</tr>
<tr>
<td>server error</td>
<td>1 URLs</td>
<td>0.09%</td>
</tr>
<tr>
<td>not found</td>
<td>1 URLs</td>
<td>0.09%</td>
</tr>
<tr>
<td>Total</td>
<td>1145 URLs</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

Table A9.1: Xenu findings (6 January 2015)

One internal problem was encountered: links to http://www.laceproject.eu/deliverables/ resulted in an error code: 403 (forbidden request). However the page was accessible using a web browser. This error code could potentially cause problems to automated robots. The problem has been reported to the LACE web site administrator.

The Xenu tool also provides an audit of the number of resources analysed. Table A7.2 provides a summary which, as further surveys are carried out, will help to show growth of the web site.

<table>
<thead>
<tr>
<th>MIME type</th>
<th>count</th>
<th>% count</th>
<th>Σ size (KB)</th>
<th>% size</th>
<th>min size</th>
<th>max size</th>
<th>Ø size (KB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>text/html</td>
<td>319 URLs</td>
<td>43.28%</td>
<td>(7503 KB)</td>
<td>18.71%</td>
<td>0 b</td>
<td>57869 b</td>
<td>(23 KB)</td>
</tr>
<tr>
<td>text/plain</td>
<td>3 URLs</td>
<td>0.41%</td>
<td>(0 KB)</td>
<td>0.00%</td>
<td>0 b</td>
<td>0 b</td>
<td>(0 KB)</td>
</tr>
<tr>
<td>text/xml</td>
<td>173 URLs</td>
<td>23.47%</td>
<td>(199 KB)</td>
<td>0.50%</td>
<td>177 b</td>
<td>57778 b</td>
<td>(11 KB)</td>
</tr>
<tr>
<td>text/css</td>
<td>18 URLs</td>
<td>2.44%</td>
<td>(19 KB)</td>
<td>0.50%</td>
<td>177 b</td>
<td>57778 b</td>
<td>(11 KB)</td>
</tr>
<tr>
<td>application/javascript</td>
<td>20 URLs</td>
<td>2.71%</td>
<td>(398 KB)</td>
<td>0.99%</td>
<td>700 b</td>
<td>95807 b</td>
<td>(19 KB)</td>
</tr>
<tr>
<td>image/png</td>
<td>82 URLs</td>
<td>11.13%</td>
<td>(9763 KB)</td>
<td>24.34%</td>
<td>264 b</td>
<td>1259898 b</td>
<td>(119 KB)</td>
</tr>
<tr>
<td>image/jpeg</td>
<td>109 URLs</td>
<td>14.79%</td>
<td>(16527 KB)</td>
<td>41.20%</td>
<td>4745 b</td>
<td>1162678 b</td>
<td>(151 KB)</td>
</tr>
<tr>
<td>image/gif</td>
<td>5 URLs</td>
<td>0.68%</td>
<td>(757 KB)</td>
<td>1.89%</td>
<td>170 b</td>
<td>737974 b</td>
<td>(151 KB)</td>
</tr>
<tr>
<td>application/pdf</td>
<td>8 URLs</td>
<td>1.09%</td>
<td>(4963 KB)</td>
<td>12.37%</td>
<td>32920 b</td>
<td>963929 b</td>
<td>(620 KB)</td>
</tr>
<tr>
<td>Total</td>
<td>737 URLs</td>
<td>100.00%</td>
<td>(40114 KB)</td>
<td>100.00%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table A9.2: Web site statistics as reported by Xenu (6 January 2015)
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For more information, see the LACE Publication Policy http://www.laceproject.eu/publication-policy/.

This document is available from the URL http://www.laceproject.eu/deliverables/d1-3-lace-compendium/ Note that this HTML page will provide information about possible changes to the document. It is recommended that this URL is cited rather than the URL of the PDF version of the document.

About LACE
The LACE project brings together existing key European players in the field of learning analytics & educational data mining who are committed to build communities of practice and share emerging best practice in order to make progress towards four objectives.

- **Objective 1 – Promote knowledge creation and exchange**
- **Objective 2 – Increase the evidence base**
- **Objective 3 – Contribute to the definition of future directions**
- **Objective 4 – Build consensus on interoperability and data sharing**

http://www.laceproject.eu/

This document was produced with funding from the European Commission Seventh Framework Programme as part of the LACE Project, grant number 619424.