Using Cloudworks to Support OER Activities

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Using Cloudworks to support evidence-informed OER activities
Panagiota Alevizou, Grainne Conole and Rebecca Galley

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1. Context and rationale

1.1. Introduction and research objectives

This report forms the third and final output of the Pearls in the Clouds project, funded by the Higher Education Academy. It focuses on evaluation of the use of a social networking site, Cloudworks, to support evidence-based practice.

Cloudworks combines practices of socialisation, sharing and co-creation common in social networking sites (SNS), wikis and social media, with different forms of dialogue, debate and peer commenting. Unlike mainstream SNS often designed on person-oriented sociality, the site supports a design for object-oriented sociality (see Conole and Culver 2010; Engeström, 2005). Cloudworks seeks to foster mechanisms and activity systems that would ‘allow users to tap into the collective wisdom and experience for own purposes, learning processes and actualization’ (Bouman et al 2007: 14). The core objects in Cloudworks are Clouds. These can be anything to do with teaching and learning and can be grouped into Cloudscapes.

The aim of this project (Pearls in the Clouds) has been to evaluate the ways in which web 2.0 tools like Cloudworks can support evidence-informed practices in relation to learning and teaching. We have reviewed evidence from empirically grounded studies surrounding the uses of web2.0 in higher education and highlighted the gap between using web2.0 to support learning and teaching, and using it to support learning about learning and teaching (in an evidence-informed way) (Conole and Alevizou, 2010). We have reported on findings from a case study focusing on the use of Cloudworks by a community of practice – educational technologists – reflecting upon, and, negotiating their role in enhancing teaching and learning in higher education (Galley et al., 2010). The object of this study is to explore and evaluate the use of the site by individuals and communities involved in the production of, and research on, the development, delivery and use of Open Educational Resources (OER).

Two interrelated reasons justify focusing on OER. The first relates to the shift in the emphasis surrounding the definition of OER from something that enables access to educational content towards transparently and openly mediating fields of practice about education, and the opening of dialogue around pedagogical practices. As Iiyosh and Kumar argue, 'the key tenet of open education is that education can be improved by making educational assets visible and accessible and by harnessing the collective wisdom of a community of practice and reflection' (Iiyosh and Kumar, 2008: 10, emphasis added). The second relates to a shift in OER policy agenda from the development of free content and towards the provision of 'participatory learning infrastructures' (e.g. Seely-Brown and Adler, 2008). Cloudworks has facilitated networking and reflection on practice surrounding core issues in OER research and development. It is also premised on the idea that the site can function as a tool that can add ‘voice’ surrounding
specific OERs, or pedagogical contexts for using open resources and content. The representation of OER-related communities, networks and discussions within Cloudworks precisely connects to ‘learning about teaching and learning’.

The aim of the case study is thus twofold:

1. To provide a description and analysis of the use of the site and identify activity types in relation to OER-related discussions. This therefore aims to map out and correlate popular activities, and the range of participants, communities or teams and nature of involvement.

2. By analysing a limited number of grouped activities (i.e. Cloudscapes or Clouds) surrounding events, to offer useful findings on the nature of involvement and also inform the future development of the site, in relation to interface, supportive resources and documents.

A series of research questions have directed the empirical investigation:

- What is the range and scope of discussions relating to Open Educational Resources (OER) and practices?
- Which communities and/or individuals, as well as practitioners and researchers involved in OER projects use the site?
- What are the popular activities and how do they relate to the site’s recurrent patterns of use, as well as popular behaviours and activities?
- What is the scope, nature and depth of discussions and how do these relate to the sharing of resources, expertise, experience and intelligence in specific activities?
- What do these discussions contribute to the wider debates about openness in teaching and learning?

In the original bid proposal the following was set out as the focus of the work.

The aim of the project is to carry out a detailed case study evaluating the use of the Cloudworks social networking site for supporting the use of evidence about learning and teaching, which could include published research, teaching ideas and learning designs.

The case study will focus on use of the site to support a particular community’s needs and will produce guidelines of good practice on application of web 2.0 practices within an educational context. Crucially it will provide a proof of concept of how the site can be used to facilitate the transfer of educational research outputs and evidence into actual practice.

This report demonstrates how the Cloudworks social networking site is used to support a particular community of researchers and users of OER. In particular it describes the patterns of user behaviour and how the site fosters evidence based approaches and scholarly practice.

1 Http://cloudworks.ac.uk
1.2. Case perspectives, framework and focus

As we mentioned above, the Open Educational Resource movement (OER) involves not only opening up access to education, but also the opening of dialogue around pedagogical practices. This case study draws on a number of critical success factors around the use of Cloudworks identified as part of a related project, the OU Learning Design Initiative (OULDI)\(^2\), for example:

**Critical success factor 1:** A body of evidence sufficient to demonstrate that the Cloudworks website has created enhancement in the professional knowledge and understanding of participants and increased their sense of belonging to a community of practice.

Two principle questions – adapted from the OULDI evaluation plan (Cross, 2010) - arise within this context:

- What evidence is there of positive shifts in culture, and attitudes, towards sharing: is the level of self-reported activity of posting and viewing OER-related themes representative or increasing?
- What evidence is there of positive shift in attitudes towards sharing: are people more willing to share to views and design on OER within the site?

It is important to note here that our position on community development does not necessarily involve cohesive groups which demonstrate strong ties or a particular and shared purpose (Lave and Wenger, 1991); rather, our interest is to identify the degree to which Cloudworks is a social, public space whereby loosely connected webs of individuals and teams form persistent and sustained ‘networks of practice’ based on mutual enterprises (Brown and Duguid, 2001; Barab et al., 2003). The objective has therefore been to demonstrate evidence on whether such networks form more cohesive groups as they emerge from transient, but repeated and iterative collaborative activity. This co-relates with another success factor identified in the JISC-OULDI project plan:

**Critical success factor 2:** A community of sufficient size and/or a sufficient annual programme of community engagements that ensure the site will continue to be used frequently without intervention from the project team.

A relatively high level of engagement and sustained interaction is evident by both groups and individual practitioners coming together to discuss and exchange both resources and practical activities relating to: research and scholarship around open education; organizational, policy and practical issues; learning designs; and teaching practices. We map out the range of these repeated activities within, across and between groups and within a range of core or

\(^2\) The aim of the OULDI project is to develop and implement a methodology for learning design composed of tools, practice and other innovation that both builds upon, and contributes to, existing academic and practitioner research. Funded initially through strategic development funded from the Open University, the project has also received funding from JISC through the new Curriculum Design programme (http://ouldi.open.ac.uk/).
popular situations that have been documented in the site (see Alevizou et al., 2010; Conole et al., 2010).

The final dimension of this study relates to the analysis of communication exchanges and the nature of discourse among participants. As we have discussed elsewhere, understanding how the design of sociality relates to the analysis of performance and the spirit of participation is crucial. In other words, we need to understand how participants frame their contributions based on perceived audience and the dynamics of specific situations. Although the focus of this study is in describing the range of activities relating to OER, and in-depth analysis of linguistic performances within this range would be beyond the scope of this study, in our data collection methods we account for different types of comments as well as factors that trigger sociality. We also provide an in-depth analysis of activities and communication exchanges on a limited number of ‘events’.

It is important to clarify that we did not seek to evaluate the content and quality across the range of contributions and activities and the degree to which they may have an impact in the OER community. We do offer, however, some degree of reflection and analysis relating to these in numerous spotlights and in the subset of a series of examples. We will report findings on the types of interventions that improved levels of participation. We hope that this study will inform both the nature of knowledge building around OER within the site and its future development as a whole. We also see this as a valuable case study in that the insights gained can be generalized to inform how social media can be used to promote and support evidence-informed approaches to practice and scholarly reflection.

2. Methodology

In devising a strategy for collecting data the following were considered:

- Range and in-depth analysis of specific OER activities
- Community representation
- Dominant themes in discussion and activities
- Patterns of interaction and behaviour.

To address the question regarding ‘the range of OER-related activities’ within the site, a broad variety of search strategies were performed, taking into account the functional utility and usability of the site. This included accounting for Cloudscapes and Clouds appearing in the ‘tag’ menu bar.
The aim of this strategy has been twofold: first, to offer a descriptive account of the nature of activity in the Cloudscapes and Clouds (aggregations of ideas/resources/discussions) that appear in the relevant ‘OER’ tag. Second, to identify the degree to which OER activities within the site have been tagged appropriately, and are therefore discoverable by browsing the ‘tag’ option. An additional keyword search on ‘OER’, ‘OERs’ and ‘Open educational resources’ revealed that while the vast majority of Clouds and Cloudscapes were included in the tagged lists, approximately 12 Clouds and 7 Cloudscapes that contained information about or were about issues in OER were not fully tagged. These were selected and included in the analytical list. Approximately 10 Clouds containing little or no content (e.g. participants, discussion, links and resources) were excluded. In sum we include the following in the analysis:

- 27 Cloudscapes, of which 19 appeared in the ‘OER’ tagged list and 8 emerged from relevant tags and keyword searches (e.g. ‘OERs’, ‘Open Educational Resources’, ‘Open Educational Practices, OLnet, Opal’)

- 13 Clouds that appeared in the OER tag (and associated tags/keyword searches), but were not included in a collection (i.e. Cloudscape).

Cloudscapes
1. OER Meeting, Monterey 2009: Event
2. CETIS OER/OU OpenLearn meeting: Event
3. Monterey Interviews: Aggregated Resource
4. JISC Open Educational Resources Start Up Meeting: Event
5. OLnet pilot virtual workshop: OLnet & OER - How do our practices reflect and inform the world out there?: Virtual workshop
6. Open Ed 2010 - Theme OER: Impact and Sustainability: Conference
7. Edushare meeting - Turkey 2009: Event (research/projects' meeting)
8. NROC Member Meeting 2010 - OER Solutions: Enhancing Learning, Maximizing Resources: Event
9. Open University annual Learning and Technology conference: Learning in an open world: Virtual Conference

3 The data was collected by browsing the most popular tags, from Cloudworks’ menu.
10. Review of Open Educational Practices: Project description
11. NDLR Fest 2010 - National Showcase of digital teaching and learning resources: Conference
12. Desenvolvendo e Reutilizando Recursos Educacionais Abertos: Práticas, Tecnologias e Reflexões: Virtual workshop
13. OER10 Open Education Resources 2010: Conference
15. UK: list of OER initiatives: Desk research
16. OPAL OER case studies: Aggregated Resources
17. OPAL Open Educational Practice dimensions: Project Description
18. Consultation exercise: on a review of OER case studies and associated Open Educational Practices: Virtual discussion group
19. OER and Sustainability: Project consortium
20. Workshop: University of Exeter: Cloudworking Open Exeter: Workshop
22. Workshop: Collaborative patterns and design for OER: Workshop
23. OLnet away day: Event
24. Researcher 2.0: Workshop
25. OLnet: Aggregational Cloudscape
26. OCWC Global 2009: Event
27. Spotlight in Open Educational Practices: Virtual discussion group

Clouds
1. Suggested OER Reading List (for Academics New to OER): Aggregated Resource
2. What are the main barriers to reusing/remixing OERs?: Q&A
3. Why remix an Open Educational Resource?: Q&A
4. Pre-workshop activity: 30 mins: Share an OER: Workshop activity
5. Stall: OERs: workshop activity/ tutorial/discussion
7. Resource: Links to OER repositories: Resource
8. Ideas for OLnet researcher workshops: Discussion Group
9. Opening doors to digital learning – open educational repositories for community discovery, sharing, reuse and activity: Conference (Live Blog)
10. Teaching spanish with a song: OER explanation/ social wraparound
11. Visualisation of quality panel: Visual representation of a discussion/debate
12. HippoCampus and Open Educational Resources: Conference (Live Blog)
13. OpenLearn 3 Years On: Milestones & Future Outlook: Conference (Live Blog)

Data were collected and observations were performed in the periods of: 28-30 April, 5-20 May and 15-25 June 2010.

While a description of the range of popular activities is mapped across these spaces, the nature of sociality is offered in a surface level of analysis. Design implications for find-ability and discoverability are also discussed. As Galley (2009) notes:

Another issue is one about what might indicate a successful conference Cloud - I’m finding it easy to slip into the trap of thinking quantity of comments is all important, but more valid indicators are more likely to be focused around the range of contributors, number of links to wider conversations and sites, evidence of increased professional knowledge, exchanges of learning and teaching ideas etc. (http://cloudworks.ac.uk/news/view/1474).
We expanded the notion of sociality for both events and projects or project meetings, based on:

- Role/position of author/anchor/core participant and nature of dialogic interchanges among participants
- Number of unique contributors other than the author/anchor/core participant
- Popular Clouds: Prompted by what appears in the home page as ‘Active Clouds’ we traced the number of Clouds within each Cloudscape with:
  - more than 3 contributions/comments, by more than two participants
  - and range, as well as depth, of contributions by a number of participants, other than the Cloud’s author.

Data relating to the modes of participation and interaction between those that ‘initiate’ a discussion/resource (i.e. Clouds or Cloudscapes’ ‘authors’) and other users was accounted for. We therefore ensured in our data collection and analysis to account for ‘Clouds Authors’ and ‘Unique Contributors’ looking also at the types of contributions and scale of engagement (e.g. amount of comments; additional content, etc.) (See below for further categorization of participants’ and participant communities.)

We provide descriptive statistics accounting for most of the dimensions outlined above for the 40 spaces (Cloudscapes and individual Clouds) we analysed. In sum, we analysed:

a) the scale and scope in discussions and activities relating to OER
b) the site’s effectiveness in indicating involvement among communities of practice and reflection
c) and the site’s capabilities to enhance professional knowledge and understanding among individuals.

The dimensions we considered while gathering evidence from publically available data within the relevant spaces included logging the following:

- Category
- Date added
- Activity Duration
- Number of Clouds
- Cloud(s) Author(s)
- Clouds’ categories
- Unique contributors
- Number of Views
- Followers
- Social Clouds
- Popular Clouds
- Comments
- Additional content

We deployed a virtual ethnographic approach (Hine, 2000) to analyse a limited number of popular Cloudscapes (in terms of range of interactions and depth of
activity) that cover the spectrum of ‘events’ category (e.g. conference, workshop, virtual workshop, etc, see sections 3.3.1 and 4) to offer in-depth insights, on the nature of sociality and communication, as well as core issues within OER research, as an example of how Cloudworks can be used to support evidence-informed developments in learning and teaching.

Certainly, fully understanding the degree to which members are involved in structured and ad-hoc OER discussions within Cloudworks would require further exploration of individual perspectives, perceptions and experiences through interviews and phenomenological approaches. For the scope of this study, a quantitative insight into the range of activities and the content generation among participant groups through post-activity and ad-hoc synchronous observations will provide valuable findings for further research. We need to stress here, that we recognize that our position as participant observers in these online spaces, is often combined with that of subjective designers of community interventions and of facilitators of blended learning/deliberation events. Throughout, we worked to maintain a reflexive awareness of the impact of our roles or the impact that our online behaviour might have had in influencing interactions in some events.

3. Insights on the range and scope of OER-related activities

3.1 Overview of activities and general descriptors

**Top level thematic categories**
Conole identifies 8 different types of spaces within Cloudworks: events, debates, open reviews, resource aggregation, courses, reading circles, learning design and expert elicitation/consultation (Conole, 2010). The majority of the spaces analysed fall into one of the most popular categories of activities within Cloudworks, namely ‘Events’ (18 Cloudscapes; and 5 Clouds, or a total 57.5%), followed by ‘Resources/reviews’ (at total of 25%) (see Conole, 2009; Alevizou et al, 2010).

With 3 conferences, 3 virtual events and 3 workshops, the majority of events in Cloudscapes tagged as ‘OER’ (33%) fall into a hybrid category that blurs the boundaries between ‘event’ and what could be best described as ‘project, consortia, summits or team meetings’; these often combine project descriptions and mission statements, and offer a public space for aggregation of resources and reflective notes, for participants to openly solicit expertise on particular topics or for dialogic exchanges on core questions.

**Table 1: Category distribution within OER activities**

<table>
<thead>
<tr>
<th>Category</th>
<th>Acronym</th>
<th>Cloudscape</th>
<th>Cloud</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Open review</td>
<td>OR</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>(1) Virtual desk research</td>
<td>VDS</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>
It is important to note here, that while we group most activities relating to OER using these categorizations, our observations and analysis suggest that further variation exists. These may be assigned to evolving aspects or capabilities of the site. A further grouping of categories can be therefore proposed to illustrate the range of activities:

1) Reviews

*Three types of reviews:*

- Solicitation of expertise around shared resources
- Virtual desk research and review
- Virtual reading circles

2) Events

*Four types of events including:*

- **Physical conferences** where Cloudworks can function as either an organizational and informational space, or a dialogic Backchannel and a personal or collective space for aggregate reflective nodes, presentation links, and additional resources.
- **Virtual Conferences:** An organizational, instructional, collectively aggregational and reflective space for virtual conferences (see Spotlight analysis below, on the OU Learning in an Open World virtual conference).
- **Physical Workshops:** A blended learning space for introductions and instructive clarifications, resource aggregation, pre-workshop activities and partial recording of activities and reflection in a physical workshop
- **Other physical events and project meetings:** Instrumental, aggregational, dialogic and reflective space for project and invitation-only physical events.

3) Debates

*Three types of consultation elicitation and debates:*

- Flash debates (i.e. current and topical debates)
• Tricky Q&A (i.e. users posting questions they are interested in around learning and teaching, looking for comments from others in the community)
• Spotlight debates (i.e. highlighted and usually time delineated debates on particular topics).

4) Other

• Learning Designs – more in-depth spaces for discussing explicit designs
• Teaching ideas – discussions around particular learning and teaching ideas or designs.

![Figure 2: Categories distribution in OER content](image)

Both the table and the chart above demonstrate top-level categorizations of the spaces listed in the methodology section. Further insights about the spread of these categories within particular Cloudscapes are provided in sections 3.3 and section 4, where we focus on specific examples. Finally, it is worth mentioning that whilst attempting to classify these activities we have noticed several crossovers between the categories especially for Cloudscapes and Clouds that have been created by members of OPAL or OLnet. This is suggestive of boundary crossing, where the functional utilities of Cloudworks allows specific communities, individuals and relational networks to draw from and contribute to each others’ work.

**Distribution of communities**

4 For a further explanation on these 4 categories and subcategories see Conole, 2009; Alevizou et al, 2010.
The majority of these spaces have been initiated by Open University researchers, affiliated OER project teams (Open Learn, Score, Social Learn), or ‘critical friends’ to the Cloudworks team (e.g. members of the OLnet initiative or the OPAL consortium). Nonetheless, there is evidence of numerous academics or academic-related professionals, as well as project associates, coming together to organize, facilitate, discuss and exchange expertise and insights in invitation-only events for project meetings funded by institutions such as JISC, Hewlett/OLnet, Edushare, NORC, and SCORE. The range and diversity of contributions (in the form of dialogic interchanges, addition of links, references, etc) will be examined in more detail below. An increasing diversity in Cloudscapes’ or Clouds’ ‘authors’ or ‘initiators’ is evident, particularly by the OLnet team, but also by other members from the wider OU and OER community.

The typologies below are further visualized across the forty Cloudscapes and Orphan/individual Clouds outlined above:

- **Cloudworks team & OER-related project associates** (acronym: CLDs team & related ASC) this includes OULD-JISC project lead, who is also the OU lead for the OPAL project, researchers involved in the HEA project
- **Critical friends** (this includes OER-related project teams from the OU community, including OLnet, OpenLearn, Score)
- **Associated project communities** (this involves participants that research and practice within particular funding bodies including JISC, HEA, Hewlett, NORC, OCWC)
- **Other participants**

The chart below indicates patterns of involvement in spread of different categories of activity.

![Top Level Activity: Community distribution](image)

**Figure 3: Community Distribution**

We classified these discussions in terms of their content, as follows:

- **Research**
• Development
• Policy
• Reflection on research and practice.

We revisit these and provide detailed analytical insights in sections 3.3 and 4 below.

What’s important however to introduce here is a theoretical understanding regarding the nature of communication and interaction among groups or individuals that are part of relational networks aggregating to discuss core themes in OER research and practices. Do these networks form communities within the site? And does this matter? According to Galley’s (2010) typology of community indicators diagram, we can say that the dimensions in the upper left and bottom right quadrants are evident in our observation logs and the data we analysed: first, participatory modes of engagement are evident through repeated contributions and through the surfacing of a core group of participants involved particularly in, and surrounding, OLnet (e.g. Hewlett grantees, Open Learn, JISC-Jorum, SCORE, etc) and OPAL. Secondly, as will be shown through the qualitative analysis in the following sections, the creative capabilities among some of the participants, or facilitators – outside the core Cloudworks team - illustrate and ignite a sense of purpose, and a shared language and understanding of core themes in OER research, scholarship and practice. It also shows the potential of the site for facilitating – to a degree – how existing knowledge and skills can be resituated in new contexts, while being able to connect to the knowledge of other specialists, either in specific institutions or the wider OER community (cf. Engeström, 2001; Griffiths and Guile, 2003).

We review these initial insights, gained from quantitative analysis, in depth, through qualitative examples, in sections 3.3.1 and 4 below.
3.2 Content and interaction types across Cloudscapes/Clouds

The nature of content within the Cloudscapes can be classified as follows:

- CFP (call for participation) and event record(s): Announcements with practical and informational nodes inviting participation for forthcoming/current conferences/events.
- Live blogging and personal reflections on event presentations.
- Resource aggregators including links and embedded content (e.g. presentations, references, case study descriptions).
- Debate and discussion spaces (e.g. responding to tricky research or practical questions, spotlight debates).
- Virtual reading groups and reviews.
- Aggregation of interviews.
- Case study descriptions.

In terms of distribution, the highest concentration of Clouds appears to be in the Cloudscape 'OPAL OER case studies' (see Table 2 below). This demonstrates the scale of activities and popularity of activities among specific communities. Although the majority of ‘case description’ Clouds were aggregated within a period of a few days (between 4-9 May 2010) and appear to be static resources momentarily, rich descriptions are provided: these utilize the functionality of the site (e.g. ‘embedded content’, ‘links’, ‘references’) by providing the space for instigating dialogue for each case study as well as for harnessing collective intelligence.

**The Open University Annual Learning Technology Conference: Learning in an Open World** is at the top of the list both in terms of abundance in resources, creative appropriation and wider participation (see details in the next section and also Table 2 below). Although this was structured as a virtual event, using a variety of communication and interaction channels (including the use of Elluminate for moderating synchronous participation), Cloudworks appears to have functioned as the core channel for aggregating contributions, reflective and live blogging and asynchronous discussions and feedback in delegates. The two annual *William and Flora Hewlett Foundation Grantees Meetings* (2010 and 2009) also are in the top of the list of ‘private’ project meetings, demonstrating a variety of involvement, both in terms of participants and activities, initiated by Cloudworks/OLnet team but scaled through community participation (see section four).

The ‘top 10’ Cloudscapes in terms of concentration of Clouds, comments and ‘additional resources’ (e.g. links, embedded content) are shown in Table 2. In addition, we have focused in more detail on one specific sub-community (OPAL) that will be used as the focus for some of the qualitative research later in this report. This exemplar concerns a community working to connect research articulating the nature of OER and associated practices and translating this into tangible guidelines for learners, practitioners, institutional leaders and policy makers. Therefore it provides an excellent focus for demonstrating how research can be linked to both policy and practice across key stakeholder groups.
## Table 2: Activity distribution on the top 10 most popular Cloudscapes

<table>
<thead>
<tr>
<th>Abundant Cloudscapes</th>
<th>Number of Clouds (Cl No)</th>
<th>Comments</th>
<th>Extra content</th>
<th>Unique Contributors</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Open University Annual Learning Technology Conference: Learning in an Open World Conference</strong></td>
<td>45*</td>
<td>163</td>
<td>192</td>
<td>35</td>
</tr>
<tr>
<td><strong>2. Researcher 2.0 Workshop – Collective Idea and tips sharing</strong></td>
<td>37*</td>
<td>79</td>
<td>92</td>
<td>27</td>
</tr>
<tr>
<td><strong>3. OER Meeting Monterey 2009 Event/Projects' meeting Record</strong></td>
<td>34*</td>
<td>208</td>
<td>4**</td>
<td>43</td>
</tr>
<tr>
<td><strong>4. The William and Flora Hewlett Foundation 2010 Grantees Meeting Event/Projects' meeting Record</strong></td>
<td>33</td>
<td>49</td>
<td>54</td>
<td>21</td>
</tr>
<tr>
<td><strong>5. OLnet Away Day</strong></td>
<td>23</td>
<td>10</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td><strong>6. University of Exeter/Cloudworking OpenExeter Workshop/Blended Discussion</strong></td>
<td>17</td>
<td>69</td>
<td>55</td>
<td>36</td>
</tr>
<tr>
<td><strong>7. OER10 Open Educational Resources 2010 Event/Conference Record</strong></td>
<td>14</td>
<td>12</td>
<td>27</td>
<td>4</td>
</tr>
<tr>
<td><strong>8. OLnet Pilot virtual Workshop</strong></td>
<td>12</td>
<td>55</td>
<td>36</td>
<td>9</td>
</tr>
<tr>
<td><strong>9. CETIS OER/OU Meeting</strong></td>
<td>11***</td>
<td>102</td>
<td>0</td>
<td>10***</td>
</tr>
</tbody>
</table>

**CONCENTRATION RELATING TO A SINGLE PROJECT (OPAL)**

<table>
<thead>
<tr>
<th>Case</th>
<th>Clouds</th>
<th>Comments</th>
<th>Extra Content</th>
<th>Unique Contributors</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>OPAL OER Case Studies</strong></td>
<td>62</td>
<td>0</td>
<td>82</td>
<td>3</td>
</tr>
<tr>
<td><strong>Project description/Resource</strong></td>
<td><strong>Review of Open</strong></td>
<td>16</td>
<td>1</td>
<td>17</td>
</tr>
</tbody>
</table>
* A small number of instructional/discussion Clouds are cross-referenced from other spaces and are extended during the duration of the event;
** A wealth of links are added to Clouds in this Cloudscape as internal hyperlinks (NB. Design of the site different in March 2009 and didn’t include addition of links or extra content)
*** During the day event; Activity/comments and contributors were enhanced when a discussion topic (Cloud) was cross-fertilised to another Cloudscape (OER Monterey 2009).

The richness of the aforementioned OER-related activities, are indicative of the **OULDI framework regarding critical success factors** (Cross, 2009), and more specifically, critical success factor 1: **development of professional knowledge**. Although further analysis of activity and insights from participants will need to be considered, two principal factors contribute to this positive suggestion - at least for the degree to which these spaces can be proven to be resources that can contribute to development of professional and academic knowledge around OER. Firstly, the range of Cloud categories described above is distributed across these Cloudscapes, indicating both a high degree of granularity and the development of momentum shared among the OER project teams both within the OU and...
increasingly outside (e.g. MITE team, Hewlett employees; see also ‘Clouds instigators versus unique commentators/contributors’ section below). Secondly, the spaces are highly ranked in simple Google searches; searches that are likely to be performed by interested users knowing specific events and/or conferences. In the results of a Google keyword search ‘Hewlett grantee meeting 2010’ the relevant Cloudscape ranked first. Likewise, a search ‘OER10 Open Educational Resources 2010’ pointing to the relevant conference that took place in Cambridge in March 2010, ranked the relevant Cloudscape third, immediately after two versions of the conference website.

An additional measure regarding visibility can be evaluated based on the number of views within a Cloudscape. The Hewlett meetings (OER Monterey Meeting 2009 and Hewlett grantee meeting 2010) for example, have generated 764 and 1065 views respectively (as of 1 May 2010). A total of 418 views had been generated for the forthcoming **OU annual learning technology: learning in an open world conference** from the moment of its launch to 1 May 2010. The amount of views increased to 2222 immediately after the end of conference (23 June 2010). This degree of a Cloudscape’s visibility is also pertinent to additional factors, i.e. a) promotion across additional media channels by the Cloudworks team and associates; b) the scale of participation and, c) ad-hoc activities in the physical locations of events (again by Cloudworks team, associates and OLnet). It would be interesting to develop metrics that measure the impact of content generated within Cloudworks among lurkers outside the core participant communities.

3.3. The archival, the social and the reflective

A number of topics pertinent to core debates around the development, uses and reception of Open Educational Resources are evident within the time under study, cutting across these collective resource and discussion spaces. Widespread topics can be divided into categories relating to a) **development** (pertinent to changes practices of teaching and learning wider policies and practices) and b) **research**. The aforementioned spaces (see figure 4) cut across these categories to degrees that can be predictable depending on the type of Cloudscape. For example, participants in conferences use the space as a backchannel for aggregating notes and reflections around particular presentations and discussions, even when a Cloud is not particularly populated in terms of diverse points of view and participants. On the other hand, it appears that both structured research community meetings and projects inviting expert consultations around particular conceptual frameworks or wider research issues are equally popular. Workshops and other similar ‘blended learning spaces’ are structured around activities that solicit the sharing of designs, resources and experiences on particular topics. Instructional Clouds are cross-referenced and linked across a number of aggregated spaces to guide novice participants.

Communication patterns within the above activities correspond to Galley’s note (2009) on the types of communication exchanges popular when Cloudworks is
used as a conference or event tool. These can be related to the discussion above as follows:

- **informational** (sharing of resources, links, annotations of presentations, live blogging, etc)
- **practical** (sharing of practice or experience)
- **social** (information modes of address, personal narratives, suggestions to recommendations), that lead or relate to:
  - discursive (affirmations, welcome notes, supportive interchanges, humor and word plays, etc)
  - deliberative (instigating debates, etc).

These categories have been further contextualized theoretically and empirically by Alevizou et al. (2010). These categories are used in the studies later in this report to analyze the scope, range and depth of communicative exchanges in specific contextual examples (see below); examples that point to development of community and sustained interaction, but also to gauge users’ perceptions and experiences regarding the resources and guidance for supporting them in intended task/skills/knowledge acquisition (OULDI critical success factor 2). Sociality is ‘triggered’ in relation to the range and depth of contributions (including references to evidence and wider discussions) either a) across popular debates in research and development of the OER field; and/or b) when requests for feedback is explicit in linguistic tropes and in showcasing of materials (e.g. OER designs/content and related open material).

Several among the top 10 richest or most abundant Cloudscapes (see previous section, Table 2) appear to be the most social, both in terms of number of unique contributors and in terms of highly populated discussions (e.g. popular Clouds), and are of particular interest. Both Cloudscapes aggregating content and discussions from the Hewlett grantee meetings also appear in this list (OER Meeting Monterey 2009 and The William and Flora Hewlett Foundation 2010 Grantees meeting), demonstrating that high levels of both facilitation and ‘moderation’ from either Cloudworks and/or OLnet teams are core to critical success factors (see also OULDI critical success factor 2: guidance and support). Another two Cloudscapes that aggregate social Clouds and animated discussions– albeit among a small number of unique contributors are the OLnet Pilot Virtual Workshop (http://cloudworks.ac.uk/cloudscape/view/1941) and Spotlights in Open Educational Practices (http://cloudworks.ac.uk/cloudscape/view/2105). These are indicative of structured activities that served a small community of participants; participants that exemplified both a common understanding of shared resources, and a shared discourse in the interpretation of resources and issues around OER (cf. community indicators). We review analytical insights in four, out these five spaces in the next section. Below, we review analytical insights from the ‘OU annual conference: Learning in an Open World’ Cloudscape, and in particular the contribution Cloud ‘Experimenting with a pedagogy of creativity and openness’; the second example is the ‘Pre-Workshop Activity: Share an OER ’ and ‘OER Stall’ part of the Brunel Blended Design Workshop (URLs are listed below). We have
chosen to present these as *contextual examples*, as they are representative of sociality activity patterns pertaining to core themes of OER and they vary in terms in the levels of engagement that can be demonstrated, while different categories and themes are addressed. We provide brief descriptions of these events and we map out the dimensions of sociality outlined above (communication patterns pertaining informational, practical, discursive and deliberative modes).

### 3.3.1. Contextual examples

**The Open University annual learning technology conference**

The annual learning and teaching conference for the OU has been traditionally held on campus, but in 2010 was conducted solely online, and made open to all, using a combination of Elluminate and Cloudworks. The conference was held over two days, with four sessions featuring a combination of OU and external speakers, culminating in a presentation from Wikipedia founder, Jimmy Wales.

According to the organisers, the conference attendance compared favourably to previous years, with 287 people attending the synchronous Elluminate sessions over the two days (Weller and Cropper, 2010). It was the first virtual event of this kind to be supported by Cloudworks for asynchronous (and partly synchronous) communication. The conference Cloudscape’s ([http://cloudworks.ac.uk/cloudscape/view/2012/all/36#clouds-in-cloudscape](http://cloudworks.ac.uk/cloudscape/view/2012/all/36#clouds-in-cloudscape)) unique views increased from 418 in early May and six weeks after initial announcements, to 2222 views immediately after the conference (24 June 2010). As of 20 July, the views increased to 2480. In addition to the amount of contributions and resources hosted in the Cloudscape, the conference generated a significant amount of network publicity, with 12 separate bloggers and 141 different Twitterers using the conference hashtag to produce over 766 tweets (Weller and Cropper, 2010).

The conference promoted instructional, informational (the aggregation of contributions) and social communication patterns within, and beyond, the synchronous 2-day programme, using a novel layout and navigational interface (see Clouds within this Cloudscape in image below):
Guidance, practical and technical support were initially provided by the Cloudworks team to the organizing committee; the latter took over completely to facilitate participant contributions (e.g. multimodal conference entries) during a 2.5 month period, prior to and during the conference. Unlike in a conventional conference, participants were encouraged to contribute entries either in a form of a presentation, or in the form of a teaching or project idea or design - a reflective and a creative exploration of topic related to core theme.
Synchronous sessions via the Elluminate platform were complemented by live-blogging content and embedding of presentations and additional content in Cloudworks, and much of the additional material was done by members of OLnet and some other OU members (see associated members). Contributions (videos, slideshare presentations, and sharing of writings or learning designs) were, by the majority of participants, expressions of existing practices, experiences and reflections\(^5\), switching therefore between informational and social modes. They provide evidence of how participants are using Cloudworks as a means of sharing experiences, supported in some cases by references and empirical data and hence a step towards adopting more evidence-informed approaches to practice. Sources of guidance and support, both in terms of instructions and reflective feedback were frequently shared among the conference committee and several associated communities.

\(^5\) It has to be said that although the number of Cloud’s authors and unique contributors appear relatively low, compared to the scale of content and comments, this is partly due to the fact that many conference delegates submitted their entries to the conference organizers who posted them on their behalf. Although this was facilitated by the committee as a means to increase the threshold of participation among un-familiar users, these very users were both responsive and vocal when recommending the experience to others.
Performance in such spaces utilised pre-designed frames for sessions that invited critical reflection on communicative processes; these were structured within the ‘bounded event’ that emulated a conventional conference, but also around invitations for openly sharing materials outlining experiences from teaching and learning situations, or reflections on the scholarship of openness and learning. Performance was also dependent on the formal characteristics of the site. This combined reflective (micro) blogging, live-blogging and commentary with multimodal contributions, cross-referencing and broadcasting comments and resources. Participants to the virtual event came from a variety of countries. Although most attendees were central staff, there was a significant audience that had no connection to the OU.

![Diagram showing distribution of roles at the OU Annual Conference](image)

**Figure 6: Attendees roles at the OU Annual Conference (based on Cross-platform participation, Courtesy of Weller and Cropper, 2010)**

Although spontaneous debates, and questions to presenters, were mostly located in the commentary space of Elluminate (the platform that facilitated synchronous interaction), deliberations and feedback were also widespread in several contributors’ Clouds.

The table in the appendix provides some examples of the range of communication patterns, structured in terms of the categories introduced in section 3.3 above.
As the first example from the table illustrates (top left column), one particular participant presented her contribution strategically; framing communication in ways in which illustrate knowledge of the perceived audience and a context of interaction that invites reflection on the scholarship of teaching surrounding creative open educational resources and the theoretical underpinnings of mediated identities and creativity. Interestingly the contribution is re-purposed from an earlier entry where the participant shared a teaching idea, about creativity and openness for a course relating to new media and ICT.

The purpose of both entries has been to share ideas and elicit practical advice, as well as a feedback on the epistemology of new media and teaching within new media. Interestingly in the 7-month period that lapsed between the two entries, the core participant (Cloud author/contributor) used the reflective comments and points made by other participants to develop their practice, and this development formed the basis for the discussion in the second entry. It appears that the initial idea is further developed following feedback – a clear example of developing learning and teaching in the light of evidence-informed discussions. The second entry itself carries over the trajectory of thought and creativity that were initiated in the first entry. Crucially, this trajectory in the use of the space may be considered as positive in the development of professional practice (cf, OULDI, critical success factor 1). The core participant demonstrates that she has used sources of technical guidance and support provided by a core member of the Cloudworks team in the first entry, and appears to be more familiar with the interface capabilities of the site.
The majority of other commentators/participants within this particular space come from the OU, and though they hold a variety of roles (e.g. academic faculty and researchers, associate lecturers) they seem to know, and/or have worked with the core contributor. This may suggest that participation is partially dependent on existing social connections and emphasizes the role that key contributors play in promoting and facilitating activities and discussion. Three core themes have dominated the discussion: the first relates to student experience and training in using open materials; the second, relates to the pedagogic design and effectiveness of such interventions; the third juxtaposes the role of expertise in teaching in an open environment through the use of open content with the tensions pertaining the relationship among digital identities, exposure and assessment. The exchange of comments reveals multiplicity of perspectives and yet a consensus on most of the tricky issues involved. Most participants made reference to each other’s point of view, and links were made to back up experience with evidence from literature and practice. Evidence of a shared vocabulary indicates that most participants express their viewpoints, while performing their respective identities as teachers and researchers in a distant learning institution. At the same time participants are keen to develop more learning and knowledge on the relationship of web 2.0 creativity and mediated learning. The final example provides further insights within these contexts.

**Blended Design Workshop at Brunel University**

On November 9th 2009 the Blended workshop introduced over 25 participants to a new methodology for learning design, which aimed to provide support and guidance to lecturers in making decisions about creating blended learning modules and activities, including use and development of OERs. Cloudworks was one of the mediating artifacts (Conole, 2008) for facilitating discussions and the exchange of designs among participants.

The workshop was developed from two previous events: Design Challenges, held the Open University's Faculty of Education and Language Studies (FELS) and again at the University of Reading. As the facilitator for the Brunel event reflected after the event:

> Feedback from the Reading event suggested that delegates wanted more structure and guidance through the design process, and so this Brunel workshop was designed to have a clear structure where short focused activities gradually moved delegates towards completed designs. Broadly speaking the activities covered four stages of the design lifecycle: vision, gather, assemble and evaluate (Galley, 2009).

‘Open Educational Resources’ were part of the activity that invited participants to gather resources for respective learning designs. Simple definitions were introduced and links to relevant resources and repositories were provided in the

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6 The Blended Design Workshop formed part of a JISC funded project on Curriculum Design led by the Open University, and on which Brunel University is one the partners. The other partners are the Universities of Reading, London South Bank and Cambridge.
Cloud that was structured as a pre-workshop activity (‘Activity: 30 minutes: Introducing OER’, [http://cloudworks.ac.uk/cloud/view/2530](http://cloudworks.ac.uk/cloud/view/2530)).

The topic was introduced to raise awareness about the existence of such resources and to elicit responses and feedback from perspective delegates and stakeholders at the event. It was also seen as an opportunity for participants to engage and familiarize themselves with the interface of Cloudworks, whilst sharing experience from their own practices of using and repurposing open resources.

The second OER Cloud was the mediating artifact for facilitating ‘The stalls activity'; these aimed to function as Informational desks, where delegates would gather around a topic expert (e.g. OER, library, ICT, etc) for one hour with the purpose of enquiring information, ‘gathering’ ideas, etc. The OER stall on Cloudworks focused on providing a short basic introduction and offering resources and links for development and/or discussion in the residential event. A recommended activity for the day was designed by the Workshop facilitator and was discussed with the ‘OER expert’ who moderated the discussion for the day. The ‘expert’ was a member of the OLnet research team.
Figure 9: 2nd OER-related Cloud, and recommended activity structure for the OER stall
(http://cloudworks.ac.uk/cloud/view/2556)

Descriptive figures from both activities are listed below:
The pre-workshop activity elicited contributions and interactions by about 10 participants (28% of the total delegates,) who were active in the days prior to the workshop. The contributions ranged from sharing existing practices around what participants perceived as OER (the object of the activity), to asking for advice about specific subjects and feedback from both the facilitator and the OLnet researcher who offered informational exchanges in the form of recommendations and suggestions. Participants introduced themselves and their respective subject positions, yet exchanges followed a slightly formal tone in communicating and in sharing experiences and practices. Although only a few participants responded to comments and recommendations from other delegates within the site (prior to, or during the day of the workshop), they demonstrated ease in interacting with the technical and interface capabilities of the site (by way of adding links and embedding content).

Interestingly, both in the pre-workshop and OER stall activities, perceptions about Open Resources blurred the boundaries between courseware definitions available through virtual learning environments, open access content and learning objects (tools, activities). Only a small minority of delegates was familiar with mainstream definitions of OER as the ‘open provision of educational resources, using free licenses, for consultation, use and adaptation by a community of users for non-commercial purposes’ (UNESCO, 2002: n.p.). Indeed as one participant in both Clouds mentioned on the OER stall Cloud:

‘I think people have been struggling with the meaning/nature of OERs. I think we often think of resources as being fixed or static like a book or a video. Maybe it helps to think of them as more collaborative and evolving (like a wiki or video responses on youtube)’.

Contrary to the expectations of the Clouds’ designer and the event’s facilitator(s), that delegates would have engaged with both informative links and definitions and the requirements of activities for the OER stall, the majority of those that

<table>
<thead>
<tr>
<th>CLOUD</th>
<th>CATEGORY</th>
<th>UNIQUE CONTRIBUTORS</th>
<th>COMMENTS</th>
<th>EXTRA CONTENT</th>
<th>KEY ACTORS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-workshop activity: 30 mins: Share an OER</td>
<td>Informative Practical Reflective</td>
<td>10</td>
<td>18</td>
<td>Embedded: 1 Links: 11</td>
<td>OLnet: 1 Cloudworks: 1 WRKS Delegates: 7</td>
</tr>
<tr>
<td>Stall: OERs</td>
<td>Informative Practical Deliberative</td>
<td>7</td>
<td>15</td>
<td>Extra: 1 Embedded: 2 links: 14 Ref: 3</td>
<td>OLnet: 1 Cloudworks: 2 WRKS Delegates: 3 Other: 1</td>
</tr>
</tbody>
</table>
came to the stall on the day, were either unfamiliar with or perplexed by the volume and nature of resources. Only two participants – who were also active on the Cloud – were more aware of the landscape and the challenges pertaining to a change of culture in sharing, and changes in the pedagogical philosophies than are more inclusive of both students’ perceptions and faculty’s cross-institutional communication around teaching and learning. One delegate mentioned that he would be delighted to share his own resources, but was also sceptical of context-independent resources.

In a reflective blog message, posted after the workshop, the OLnet Researcher included a record of the discussions that took place during the OER stall activity, and direct participants to relevant resource on the site:

Responding to the question: ‘what type of resources would you consider useful from your point of view’, your remarks were:

- audio, podcasts, Q&A banks around specific theories attached to a particular discipline and/or professional practice, quizzes, activity banks
- webinars, online articles, blogs
- resources and learning activities geared towards the development of lecturing skills, professional development, pastoral support
- widgets and tools on debating, argumentation as well as generic resources relating to ICTs (http://cloudworks.ac.uk/cloud/view/2556)

[discussed] perceptions about OERs, [not] simply as open access content or courseware, but also as something that also involves collaboration and sharing of experiences and contents around particular interests, disciplines, learning and teaching activities. Challenges focus on finding relevant and credible resources and cognitive overload; Challenges around sharing include lack of motivation due to time limitations, lack of confidence and digital or collaborative literacies would be. […] The UK’s Joint Information Systems Committee has a comprehensive programme on OERs and is offering support for pilot projects and activities that foster the development of open resources.

Reflections in this, and on a similar entry posted on the OLnet site, attempt to capture the flavour of the day both, with regards to the role of the moderator as an expert advisor, and as a researcher pointing to common issues around awareness, literacy, motivations of sharing. Cloudworks was another mediating artifact that facilitated interactions among participants, prior to and during the event. It is also a public space for aggregating resources that support people to learn about teaching and learning via Open Access and Open Educational Resources; this involved sharing own learning and uses of materials and practices, but also, reflecting on perceptions and challenges.

In sum, the OER activities were structured on the premise that participants would have found some definitions of OERs (the pre-workshop provided relevant links), but few had even heard the term before or had searched the activities. Yet, the discussion, both in the physical space and in the Cloud – as some workshop participants expressed – ‘was interesting, in terms of beginning to assess some of the complex literacies and competencies involved in using and remixing OERs’ (in Galley, 2009b).

Nonetheless, in spite of the fact that both the workshop facilitator and the OLnet OER stall moderator, continued to post resources and broadcast changes and
reflections to participants (using various communications channels, including twitter and group emails), activity to the site was not sustained after the residential event. This has implications more generally for how such sites are used to support scholarly practice and promote evidence-based approaches. It means that it is important to recognize that activity may not continue indefinitely and that fostering activity will often require structuring and moderating to some extent. There was one exception coming from one prolific Cloudworks subscriber (and remote virtual participant), who picked up the discussions on the Cloud from Twitter, and contributed annotations pointing to an article relevant to the themes pointed (OER remix and cultural adaptability). This sparked discussion among the core participants within the Cloud (facilitator/OLnet researcher), who also archived and cross-referenced additional relevant links.

As the facilitator reflected in relation to participants’ feedback on the Cloudworks site: ‘Very few people in this group used social networking sites and this showed itself both in terms of levels of ‘buy-in’ and skills.’ (Galley, 2009b). But the reflection from a stakeholder below captures many of the issues expressed within the context of the OER discussion:

> Blended learning (or what I understand of it) is far more than just using web-based resources in tandem with traditional teaching methods- it is a completely different approach to student-led teaching. We need more input on the ideological orientations of this method and more critical input on (a) how realistic it is to implement the same, (b) resource constraints, (c) burden on teachers and (d) pedagogical debates on using new technologies to reflect teaching (e) acknowledgement of student needs and constraints in receiving this information.

3.3.2. The archival and the social: some concluding remarks

This section has reviewed dimensions of sociality and communicative patterns across a number of cases. We drew parallels between these and some dimensions of the OULDI critical success factor 1. We summarise these here:

**Critical Success Factor 1: Has the use of Cloudworks created enhancement in the professional knowledge and understanding of participants and increased their sense of belonging to a community of practice?**

- Was there evidence of guidance, feedback, friendliness and support in the interactive and dialogical exchanges? How far did participants make repeated contributions and how do they relate to a core group of participants?

Discussions facilitated by active moderators, as well as core participants from associated research and practice communities in structured events, seem to have good prospects in promoting sustained interactions and dialogue. Nonetheless, animated discussions emerge either when issues relating to core OER debates are posted across various channels, or when solicitation of advice and feedback
is specifically phrased and strategically positioned within a prominent Cloudworks space (e.g. featured Clouds or Cloudscapes). Repeated contributions are evident from the participants belonging to the core communities (see section above), the majority of whom aggregate in structured events, or use Cloudworks as a space to record and archive resources and conversations on OER. A small number of individuals (either members of these communities, or prolific subscribers) often act as ‘ambassadors’, promoting discussions and content posted on the site, across other communication channels.

- **Did participants attempt to connect their knowledge and experience to that of others? Is there evidence of participants’ crossing organizational and role boundaries?**

Again, there is widespread evidence that participants connect their knowledge and experience with others often crossing organizational boundaries when they assume (and reflect upon) their roles as researchers, teachers and practitioners. It appears that membership in existing professional and academic communities of practice, and prior familiarity with other participants, or indeed the socio-technical interface of Cloudworks, are important for mobilizing sustained interactions and animated debates. Similar vocabulary and phraseology in sharing perspectives, is evident among participants that have had an epistemic, a research or a development interest in OER, but also, among those, that share an interest and concerns surrounding the opportunities of ICTs in education, e-literacies, etc.

The next section outlines some in-depth insights on activity and communication patterns evident in another two Cloudscapes that exemplify core activities among members from the OLnet community, so as to provide a more longitudinal account of their evidence-informed discussions over time.

### 4. Further examples in structured community activities

A number of topics pertinent to the core debates around the development, use and reception of Open Educational Resources are evident in the site, cutting across these collective resource and discussion spaces. Widespread topics can be divided in categories relating to development (pertinent to changes practices of teaching and learning, as well as wider policies and practices) and research, with overlapping categories.

Several patterns of activity responding to the themes above have been reported in the previous sections. In this section we focus on the OLnet team and the 2 activities of the 2009 and 2010 annual grantees meetings organised by the Hewlett foundation. The rationale for this is to follow a particular community and see how professional knowledge and informational exchanges are developed and shared among participants. Following the methodology outlined in sections 2 and 3 we first focus on the general descriptive patterns within these events. We then focus on active and popular Clouds from these events in order to map how the themes outlined above feature in these. We will also point to core
communication patterns and evidence of shared discourse, cross-referencing core themes as they appear in other OER-related Cloudscapes.

4.1. Patterns of activity
As with the ‘The William and Flora Hewlett Foundation 2010 Grantees Meeting’ ([http://cloudworks.ac.uk/cloudscape/view/2053](http://cloudworks.ac.uk/cloudscape/view/2053)), the ‘OER Meeting, Monterey 2009’ ([http://cloudworks.ac.uk/cloudscape/view/873](http://cloudworks.ac.uk/cloudscape/view/873)). Cloudscapes mediate invitation-only events for OER advocates, practitioners and funders supported by the William and Flora Hewlett Foundation. The latter was co-hosted by the Monterey Institute for Technology and Education (MITE), and the William and Flora Hewlett Foundation March 2009 in Monterey, California with the MITE team setting out the Cloudscape and several informational Clouds. The former was organized in partnership with Yale University, and representatives from funded projects joined on the Yale campus between April 8-10 2010. The Cloudscape was set up by the OLnet project manager, who also set up a core informational Cloud together with a project manager from the Hewlett Foundation. The Table below demonstrates core activity patterns.

The Monterey meeting has generated 764 unique views\(^7\) across the period between the creation of the Cloudscape and the time that the data was collected (13 March 2009 – 10 May 2010). Of these views, about a third were generated prior to and during the event. Nonetheless, the increase in the number of views observed from the period that data was collected to the time of writing a final version of report (by the end of July 2010 views were 893), suggests that this space also acts as a resource for ‘lurkers’ who come to the site from Google searches or through searches and navigational tags within Cloudworks.

Table 5: Activity patterns in the annual Hewlett grantee meetings

<table>
<thead>
<tr>
<th>Category</th>
<th>OER Meeting, Monterey 2009</th>
<th>The William and Flora Hewlett Foundation 2010 Grantees Meeting</th>
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<tbody>
<tr>
<td>Event Duration</td>
<td>4-6 March 2009</td>
<td>8-10 April 2010</td>
</tr>
<tr>
<td>Activity Duration</td>
<td>13 Feb 2009-Mar 2010</td>
<td>29 Mar-14 April 2010</td>
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<td>Views</td>
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<td>Followers</td>
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<td>Cloudscape ‘Author’</td>
<td>MITE team</td>
<td>OL.net Project Manager</td>
</tr>
<tr>
<td>Clouds Number</td>
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<td>33</td>
</tr>
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<td>Clouds Categories</td>
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<td></td>
<td>- Archival Notes</td>
<td>- Archival Notes</td>
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<tr>
<td></td>
<td>- Resource Aggregator</td>
<td>- Presentations’ Aggregator</td>
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<td></td>
<td>- Project descriptions –</td>
<td>- Reflective blogging</td>
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<tr>
<td></td>
<td>- Discussion &amp; debate spaces</td>
<td>- Project descriptions –</td>
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<tr>
<td></td>
<td>- Interviews</td>
<td>- Discussion &amp; debate spaces</td>
</tr>
<tr>
<td></td>
<td>- Evaluative/technical</td>
<td></td>
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<tr>
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<td>feedback</td>
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</tbody>
</table>

\(^7\) A unique page view represents the number of sessions during which that page was viewed one or more times.
The 2010 meeting at Yale generated 1065 views between the launch of the Cloudscape through to the time that data was collected. This suggests that the event was both better publicized by the Hewlett and OLnet leads, and that links to the page had been circulated more widely by those initially contacted. An even larger pace of increased activity is reported for the time lapsing between the data collection and time of writing (an increase by 535 views reaching a total of 1600). An additional factor for this may be that, unlike the Monterey meeting, the overall programme of the event was included in the Cloudscape, and the sessions were hyperlinked to relevant Clouds.

There appears to be a disparity between the Cloudscape page views and the number of views even in Clouds that have generated the most activity, both in terms of unique contributors and in number of comments. The ‘Issues for OER research’ Cloud from the Monterey meeting, [http://cloudworks.ac.uk/cloud/view/980](http://cloudworks.ac.uk/cloud/view/980) contains 48 comments and a wealth of internal links to resources and had generated 266 views, whilst the ‘What does quality mean in OER?’ Cloud [http://cloudworks.ac.uk/cloud/view/880](http://cloudworks.ac.uk/cloud/view/880) had generated 16 comments and 399 views. In the Yale 2010 meeting, the ‘What kind of research is necessary to demonstrate OER can help create better learning outcomes?’ Cloud [http://cloudworks.ac.uk/cloud/view/3320](http://cloudworks.ac.uk/cloud/view/3320) generated 9 comments and 203 views, and the ‘International OER policy’ cloud [http://cloudworks.ac.uk/cloud/view/3313](http://cloudworks.ac.uk/cloud/view/3313) generated 13 comments and 183 views. It is important to note here that while the Yale event is more recent, and that to an extent the higher views figures in the individual Clouds of the Monterey meeting may indeed be a result of its longevity within Cloudworks, two assumptions can be made. Firstly, that many visitors did not make it past the Cloudscape node; secondly, that both the order of information is critical in increasing the level of engagement and that tagging of individual Clouds is crucial for increasing find-ability within the site when users perform semantic queries. These assumptions correspond to observations outlined in the first case study part of this project ([Using Cloudworks for an Open Review](Using%20Cloudworks%20for%20an%20Open%20Review)), and are similar to activity patterns noted in other social networking sites. The implication here

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1 Issues of OER research Cloud was added from the 'CETIS OU meeting and was expanded'; 2 more Clouds that were uncategorized, but were part of the meeting were added by the OLnet researcher that is the lead author of this report, prior to researching this case study.

2-3 Social Clouds: sociality means:

As we mentioned earlier, sociality is defined by number of Clouds with more than 2 contributions by participants other than the Cloud’s author. Popular Clouds, are active Clouds demonstrating not only a large number of Comments by a diverse body of participants, but also discussion that includes deliberation and reflection, often backed up with additional resources and links.

4 During this Alpha Version of Cloudworks (prior to July 2009), the site allowed embedding of internal video hyperlinks and slideshare links within the commentary tabs.
too, is that these ‘lurkers’ (Smith, 1992) may be considered to be ‘peripheral participants’, whose knowledge and professional understanding can be further developed from reading posts and resources provided; however, only some form of follow up, such as interviews, would confirm this.

**Thematic categories and analysis of interactions**
The vast majority of Clouds (95%) from both meetings were initiated by the project teams that took responsibility for creating the main event Cloudscape. In both cases, the type and order of content followed a similar pattern (see table above, column on the ‘Cloud category’). Aside from informational Clouds outlining the structure of events and sessions, and offering instructions and guidelines for using the site, a number of Clouds were set up as questions to stimulate debate and deliberations in issues relating to development and policy, or scholarly and practical reflections surrounding sustainability and pedagogy in OER. A Cloud was also set up in both the meetings to invite participants to describe their respective projects. We return to the most active Clouds within categories after we provide an overview of the nature of participants.

In total, there were 43 unique active participants in the Monterey meeting, 41% of the total participants to the event (total of 103). Of those, 33 were Hewlett grantees (see **Associated Project Communities**), 5 from the OLnet team (also a Hewlett grantee) (**Critical Friends**), 2 from the Cloudworks team and 3 other (**Other**) participants. It is important to note that 2 of the 5 OLnet members, the 2 Cloudworks team members and the 3 other participants were active after the event in the following ways: a) by way of adding uncategorized Clouds to this Cloudscape (OLnet); b) by responding to the Cloudworks evaluation Cloud; and c) by adding links and/or references (Other). Aside from the OLnet and Cloudworks team and 1 participant from Other, only a small percentage of the associated project communities (approximately 15%), in this case the Hewlett grantees, were active either prior to or after the event. One member of the OLnet team that participated physically in the event is also the Cloudworks and OULDI project lead.

Only 16% of the overall participants from the 2010 Yale meeting participated actively in Cloudworks. Of the total 21 of unique contributors, 4 were from the OLnet team (1 participated remotely by way of contributing to discussions and adding links) and 17 from Associated Project communities, 16 of which represent Hewlett grantees and 1 the lead from the foundation’s OER. The 16 participants from that group added on average 1.25% comments. The most active participant by way of commenting and critically reflecting on presentations and discussions was the OLnet project lead; the vast majority of ‘extra content’ was contributed by OLnet members. Only a handful of contributors from the largest group had participated in Cloudworks before, and approximately 5% demonstrate sustained interaction.

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8 Participation, as we mentioned above, is defined by activity that involves setting up Cloudscape and Clouds, commenting and adding links or extra content.
The graphs below illustrate distribution of activity by participants.

![Figure 10: Participants distribution in the 'OER Meeting, Monterey 2009'

As can be seen, contrary to the large volume of exposure that the grantees meeting got in 2010, active participation within Cloudworks was relatively low. One possible explanation is that participants in the event preferred alternative communication channels (through alternative Twitter streams or personal and institutional blogging spaces); another is that champions during this event did not manage to mobilize enough internal or external participation. Both the Cloudworks lead and the other two OLnet members that were physically present in the Monterey acted as champions during the event, both by guiding participants through the site’s interface and by directing participants to core debates within the Cloudscape. What was also crucial during the event was the fact that most interactions followed a workshop that had been designed to make
use of the capabilities of the site. This is an example of the importance of the role of champions in supporting and promoting the event and of the connection between use of Cloudworks for real events.

An interesting example of sustainability and an effort to expand sociality around a core issue is evident in a Cloud entitled ‘Issues of OER research’. Initiated by the OLnet Director during the JISC CETIS OER/OU Open Learn Meeting on 25 Feb 2009, this particular Cloud migrated, cross-fertilised and was deliberated upon as part of the Hewlett Monterey Meeting in March 2009. This demonstrates how the structure of such sites enables transfer of ideas between communities, enabling boundary crossing between different communities. This is a distinct feature of such sites and has clear value in promulgated good ideas and evidence-based approaches to learning and teaching. Although discussion was not generated during the CETIS meeting, to date the Cloud has generated 48 comments (e.g. informational and practical exchanges, deliberation over issues and examples), all of which were contributed during the Monterey meeting.

Adding comments was one of the most popular activity patterns among the largest group of participants in both events. Cloudworks was in its Alpha version during the Monterey event, and features such as links or external content embeds (e.g. from Slideshare, YouTube, etc) were part of the ‘comments’ space; as a result they are not easily identifiable as separate entries. There was however a wealth of links to OER projects contributed by the largest group of participants. Apart from participating actively in discussions, members of the OLnet team added links to a number of video-recorded mini interviews from key participants at the event, and one sought to visualize core themes from presentations and active debates through the concept mapping tool, Compendium. Maps were deposited in the Lab Space and were added as a separate Cloud. Similar activities are evident in the 2010 meeting. We return to these in the sections below, where we discuss thematic representation of core issues within OER research and development. Recording of live sessions with reflective blog-style posts and additional content (either by way of images or videos) are evident in both events. In addition, 2 members of the OLnet team (one in each meeting) attempted to visualise core discussions, using a conceptual mapping tool. We return to these in the next subsection, to offer an insight of the comments and the visual representations.

4.2. Deliberations of communities of practice and reflection: Representation of core OER debates

It appears that the intensity of activity around core OER debates was greatest during the events. Most of the discussions were part of the actual event programme. It is evident that questions structured in ways that promote diverse and divergent opinions while preserving a friendly focus and tone in modes of address entice participation. Encouragement and repeated invitations through physical interaction and diverse communication channels has also been crucial. Below we list Clouds that generated the most developed discussions or aggregations of informative posts by a diverse body of participants. These show the breadth and richness of the discussions and the aggregation of resources.
They also provide examples of the different types of mechanisms that can be used to promote evidence-based practices and sharing of ideas and resources.

Table 6: Most active Clouds

<table>
<thead>
<tr>
<th>Monterey Meeting 2009</th>
<th>Yale meeting 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Issues for OER research (48 comments)</strong></td>
<td><strong>Panel: International OER Policy: Sharing Goals and Objectives Across Countries (13 comments)</strong></td>
</tr>
<tr>
<td><strong>Introductory nodes:</strong> What are the questions that need some answers?</td>
<td>No introductory node, but drafting plan notes, internally hyperlinked</td>
</tr>
<tr>
<td><em>Open Educational Resources could be a new way for education to operate - but what issues need to be addressed if OER is to meet its their promise?</em></td>
<td>Informational patterns; live-reporting on panel discussions. Discursive and deliberative patterns of communication; discussion emerging to a debate, but no consensus reached</td>
</tr>
<tr>
<td>Discussion renders a combination of informational, practical and social patterns of communication. Discursive and deliberative patterns of communication; discussion emerging to a debate, but no consensus reached</td>
<td>'I agree about opening up these kinds of events. One of our challenges is that many of our OLE Centers have spotty Internet connections (Ghana, Rwanda, Nepal). In time these will improve but for now it is a challenge. Also, my experience is that most of these people are quite busy and, despite the lure of having these discussions “available” they are rarely actually used asynchronously.'</td>
</tr>
<tr>
<td><strong>Conference Interviews (32 comments)</strong></td>
<td><strong>What kind of research is necessary to demonstrate OER can help create better learning outcomes? (9 comments)</strong></td>
</tr>
</tbody>
</table>
| **Introductory nodes:** Interviews with NROC Network Conference attendees and OER09 Conference attendees. | Introductory node:  
  - What metrics should we be measuring?  
  - How do we gather impact data in an open environment?  
  - Who are the audiences for this research? |
<p>| Transcripts and images with 32 participants combining informative, practical and reflective narratives | Informational, discursive and deliberative patterns of communication; discussion emerging to a debate, but no consensus reached |
| <strong>Trends in OER (23 comments)</strong>                                                     | <strong>Panel: Domestic OER Related Policies: Opportunities and Challenges Across Levels (8 comments)</strong> |
| 'Introductory node: Thoughts about how the field has developed to date, what the status of OER is today, and where might it go in the near future. | No Introductory node; |
| <em>Informational patterns; live-reporting on panel discussions and questions</em>          | Informational patterns; live-reporting on panel discussions and questions contributed by one participant. |
| <strong>Open Educational Resources Showcase (21 comments)</strong>                               | <strong>Cross-national collaboration (3 comments)</strong>                                     |
| <strong>Introductory node:</strong> Please add a description of your project here. You may include links, and media (embed from YouTube, Slideshare, Flickr, etc.) to provide the community with a snapshot of your work. | No introductory node: |
| <strong>Cross-national collaboration (3 comments)</strong>                                       | Extra content and comments: Informational patterns; reporting on panel discussions; additional reflections with cross-referenced evidence: E.G. 'I'll just make this note here.' |</p>
<table>
<thead>
<tr>
<th>Informative and descriptive patterns</th>
<th>It seems to address the crux of the bizarre value chain which only academic institutions can afford. ‘…’ I’ll also just note this one as well. It’s such a nice backgrounder doc which needn’t be reinvented.’</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>What does quality mean in OER? (16 comments)</strong></td>
<td>How can OER improve its value proposition for incumbents and for emerging models across sectors? (2 comments)</td>
</tr>
<tr>
<td>Introductory node: Discuss issues of quality of OER, including proposals for quality indicators and raising the quality of OER.</td>
<td>Introductory node:</td>
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<td></td>
<td>• How does the OER change business models?</td>
</tr>
<tr>
<td></td>
<td>• What are the challenges and opportunities?</td>
</tr>
<tr>
<td></td>
<td>• How can OER improve its value proposition to end users?</td>
</tr>
<tr>
<td>Informational patterns; reporting on panel discussions and questions</td>
<td>Informational patterns; reporting on panel discussions and questions</td>
</tr>
<tr>
<td><strong>Sustainability in OER projects (8 comments)</strong></td>
<td></td>
</tr>
<tr>
<td>Introductory node: Models, cases, challenges and debates on the sustainability of OER projects.</td>
<td></td>
</tr>
<tr>
<td>Informational and practical communication patterns; reporting on panel discussions and questions</td>
<td></td>
</tr>
<tr>
<td><strong>Data collection tools and techniques for OER research (6 comments)</strong></td>
<td></td>
</tr>
<tr>
<td>Informational and practical communication patterns; reporting on panel discussions and questions</td>
<td></td>
</tr>
</tbody>
</table>

The above suggests the representation of core themes within scholarly and development communities in OER. This is an indication that participants relate discussions to core debates that appear in the literature and they seek to enhance professional knowledge even within this space. Themes addressed here are central in other OER community debates (D’Antoni and Savage, 2009) and in research (Hylén, 2006; Attwell and Pumilia, 2007). What is more, both the language and modes of address introducing core topics promote active voice, and simple questions to promote engagement. Statements and bulleted lists in the introductory nodes of each Cloud are short and punchy to promote easy reading (and broadcasting across various channels); questions and statements nonetheless build upon and address existing knowledge and core issues recognized among a networked and reflective community of practice and research. Although thematizing the discussions following a grounded theory approach that is informed by key debates in OER research is beyond the scope of this study, below we offer a snap-shot of some of the core issues raised from these two events and to cross-reference the ways in which they feature in relevant spaces within Cloudworks. These examples illustrate how ideas are shared and co-constructed and how individuals share evidence and references. We focus on two generic discussions that generated lots of activity: the first is the ‘Issues for OER research’ ([http://cloudworks.ac.uk/cloud/view/980](http://cloudworks.ac.uk/cloud/view/980)) from
the 2009 meeting and the second ‘what kinds of research is necessary to
demonstrate OER can help create better learning outcomes’
(http://cloudworks.ac.uk/cloud/view/3320).

‘Issues for OER research’

An interesting example in this respect relates to one subscriber’s efforts to
generate input around a core issue evident in this Cloud. Although the discussion
started with a list of individual perspectives responding to the simple question
‘What do you think are the issues for OER research?’ posed by the OLnet project
lead, it soon generated some more deliberative comments by a body of 23
participants, 5 of whom made repeated contributions. The discussion followed a
tentative and responsive tone, and negotiated on several viewpoints or posed
further questions as one would expect from participants in such events coming
from a variety of institutions and respective positions. What is evident is the
sharing of a common discourse (see also quotes below) facilitated by
participation in relevant communities, the members of which meet regularly in
similar virtual or physical events.

Communication patterns in discussions demonstrate a mix of informational and
discursive modes of address, progressing quick responses and live reporting of
the physical discussion to a more deliberative mode.

‘K-12 teachers need to be comfortable with OER and web use as an educational tool. To
correct this will take many avenues. One will have to be colleges of education. Another
would be professional development perhaps through the unions and state agencies.’

‘We need to pay attention to the system as it relates to the audience of users. We are talking
about systems. We can’t just drop objects into systems-rather than attend to the system
issues for implementation and sustainability’

What evidence is there that OER will be more successful in affecting pedagogical practice
than has been all of the “regular” educational research to date?

A comparative study of the process by which knowledge affects practice in different
disciplines may provide some insight into the best ways forward for getting OER to affect
practice.

Core themes were:

- Motivations for sharing and incentives for participation
- Financial sustainability and licensing jurisdictions
- OER tracking, usage patterns and users motivations
- Quality and credentials
- Effectiveness metrics
- Types of research and dissemination of empirical results.

A partial visual representation of the discussions was later attempted through
the use of the concept mapping tool Cohere by an OLnet researcher working on
issues of online deliberation and visualisation of collective intelligence⁹:

| 1.  | Issues for OER research | Sustainability | 203/09 | Details + URLS + Groups (1)* |
| 2.  | Issues for OER research | Scalability | 203/09 | Details + Groups (1)* |
| 3.  | Issues for OER research | Sheen-ability | 203/09 | Details + Group (1)* |
| 4.  | Issues for OER research | Effectiveness | 203/09 | Details + Groups (1)* |
| 5.  | Issues for OER research | Participation | 203/09 | Details + Group (1)* |

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⁹ Deliddo, A. (nd) 'Issues for OER research'

http://cohere.open.ac.uk/node.php?nodeid=137108251470598756001269285858#conn-neighbour
It is important to note that this remote participant sought to visualize the core discussion within this space, after the event. This is an example directing to the socio-technical capabilities of the site for promoting sustainable participation.

*What kinds of research are necessary to demonstrate OER can help create better learning outcomes?*

Following from a discussion that was initiated in the 2009 meeting, and responding to wider debates within the OER research field, the lead from Hewlett foundation posted a number of questions to the Cloud, aiming to invite participants to reflect on a panel session, but also entice further dialogue.

The questions were:

- *What metrics should we be measuring?*
- *How do we gather impact data in an open environment?*
- *Who are the audiences for this research?*
Although the discussion did not precisely keep within the core questions, 4 active participants (one of whom participated remotely) offered 8 insightful comments that are at the centre of research and debating on OER effectiveness debates. Deliberations were over the nature of research, the relation of OER research to education and social scientific methods in aggregating empirical insights, the issue of contextualisation of educational research and sensitivity in cultural and demographic variations. Another issue was raised in relation to new priorities in the US educational policy agenda, and the gathering of evidence surrounding the issue of ‘deeper learning’. Humour and affirmations are indicative of participants having a sense of common purpose, while able to challenge each other with multiple viewpoints that are both contradictory and cohesive. As one participant noted:

*the metrics for Deeper Learning are a challenge and we should mix in the metrics for such things a use but need to think about the bigger aspects of learning and of change!*

Again, an OLnet participant generated an inclusive map of the panel discussion on research (and linked it in the Cloud): A partial view of the map is provided in Figure 13, below, as an example of the ways in which the site supported the creation and sharing of evidence-informed views on practice.

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**Figure 13: Dialogue Map from the OER research discussion**


### 4.3. Representation of Core OER themes within Cloudworks

Other similar discussions and interactions have taken place in the 40 Cloudscapes and Clouds included in this review, mainly initiated by OLnet, SCORE and OPAL teams. The distribution across themes illustrates that
community networking, and reflection on practice surrounding core issues in OER research and development, is both rich and sustained. Certainly, the degree to which Cloudworks is used as tool to add 'voice' surrounding specific OERs, (pedagogical contexts of use, or 'pedagogical wrappers') is still relatively limited (see Contextual example from the 'OU Learning and Technology Conference' above). Nonetheless, the themes outlined above represent activities of OER-related communities and networks, who come to the site to utilize its core functions: to connect with individuals and networks and engage in 'learning about teaching and learning practices' in an open fashion'. The map below demonstrates the distribution of themes among the pages under study (40 Cloudscapes/Clouds). This shows the richness of the discussions through one example in a specific domain, but is clearly relevant to other communities. It shows how the conversations spread across research, good practice and implications for both policy and practice.
Figure 14: distribution of core OER themes across the 40 Cloudscapes/Clouds
Three important points are worth mentioning at this point. Firstly, the range of the most popular topics surrounding the practice and research on OER outlined above, are at the centre of OER practice (Hewlett, 2009; Unesco/OER toolkit, 2009; Wikieducator/OER Handbook, 2009) and scholarship (e.g. D’Antoni and Savage, 2009; D’Antoni, 2006; McAndrew et al, 2009; Hatakka, 2009; Iiyoshi, and Kumar, 2008; Hylén, 2006). Although such discussions vary in terms of depth and scope, we can see from activity patterns that dispersed individuals, belonging to specific professional and research OER communities (see figure 14, above), reveal repeated and sustained engagement in their respective discussions or reflective notes. For example, discussions that were launched in relation to the institutional and pedagogical benefits or challenges surrounding the practical development of OER, may also invoke themes in discussions surrounding research on pedagogical innovation, innovation and the pedagogy of open teaching and learning, etc. Likewise, issues around the quality of resources that stem from discussions among participants in the Monterey meeting, in a context that relates to core issues around OER research, are also invoked in a discussion among participants in the OLnet virtual pilot workshop (http://cloudworks.ac.uk/cloud/view/2764), whereby delegates used reflective tropes from their own practice. Similar points were raised in the Cloudscape describing core dimensions of Open Educational Practices (http://cloudworks.ac.uk/cloudscape/view/2086 http://cloudworks.ac.uk/cloudscape/view/2105). The point of departure there was embedded content that emerged from a literature review of the field and cross referenced descriptions of nearly over 80 OER development examples (http://cloudworks.ac.uk/cloudscape/view/2085). Interestingly, within the context of these descriptions, quality was connected to issues of legacy, but also to issues of institutional support for supporting openness and innovative pedagogies. The matrix in the figure above, attempts to offer an illustrative snapshot of cross-over(s) among the core themes in discussions and resources mediated in the Clouds under study.

Secondly, unlike other public and private spaces, like bulletin boards and mailing lists, the interface of Cloudworks as a public, resourceful space seems to allow both participants and discussions to cross-over across thematic and temporal dimensions of engagement or purposefulness, but has important implications for sustainability.

Thirdly, sustained interaction within core OER themes, also involves both peripheral participatory or curatorial activities (e.g. adding links, references, embedded content, signposting and cross-referencing relevant Clouds, etc).

5. Conclusions and recommendations

In this conclusion section we synthesize the key themes emerging from this report and reflect on the implications of this more generally to how such social networking sites might be used to promote scholarly practice and evidence-based practice. It is clear that such sites have potential in this respect, but what is
evident that fostering such practices requires both careful considering of how the space is structured and facilitated.

The following can be summarized from the range of these activities

- There is an important distinction between support for mainstream conferences and invitation-only closed events. The site appears to function well as a space for supporting community meetings (such as the OER events), expanding the boundaries of a ‘private space’ (physical – invitation-only) and a public record for aggregating resources and discussions.

- Evidence of the emergence of ‘private’ spaces within the site – this could point to the development of more firmly boundary-bound and self-confident communities in the space. This highlights the importance of allowing groups to create boundaries around particular evidence-informed discussions, which is interesting and was not expected prior to this study. This will be possible with the open source version of Cloudworks, which will be released soon, which has been designed to enable communities to set up more targeted and private spaces.

- There was an aspiration shared among OLnet members to develop a record of events as an archive of resources and discussions about OER, incorporating professional communities and members’ reflective notes. There is potential here more generally for using this as a means of both documenting evidence-based approaches and aggregation of resources and for cross-fertilisation of ideas between different communities.

- It is worth mentioning that of the Cloudscapes list outlined, two Cloudscapes (the Portuguese Workshop/link, and the NDLR OER showcase event) do not contain any activity (orphan). The latter was added using the new functionality of Cloudworks [events] by the OLnet project and liaison manager; however, it appears that, either no members from Cloudworks or associated OER research teams participated in the event, or no sufficient cross-media publicity took place. The former event was either cancelled or alternative mediating artifacts were chosen. The ‘UK OER initiatives’ (Cloudscape appears to have merged with Cloudscape on ‘OPAL OER case studies’. While these activities, illustrate somehow the messiness of an online public space, inviting collective contributions and improvement, either in resource(s) aggregation or dialogue, the tensions between informational resourcefulness and maintenance or curation of the site overall, maybe also considered.

- The role of champions appears to be important in terms of structuring and fostering particular community activities. A general note for use of such sites for promoting evidence-based approaches is both identification of who these champions might be, what their role is and clarification of the benefits they will gain by being involved. Within this study, this was evidenced by the prominent position of OLnet members and some of the other OER researchers and practitioners. Nonetheless the spaces did appear to cross community boundaries. This enabled discussions initiated
in the OLnet community to be taken up in other areas and by users interested in broader learning and teaching issues.

• Sustainability of participation remains an issue - ways in which support and guidance materials might be developed to help with this - especially with reference to the importance of engaging champions from within the community to play key roles, language and tone, and also tagging/signposting.

• Such sites are designed to be dynamic, growing chronologically and driven by user-generated foxonomies. This raises issues in terms of findability and navigation in contrast to more traditional digital repositories. In Cloudworks there are a range of mechanisms for users to tailor the space; such as use of RSS feeds, the activity streams and favouriting (or bookmarking).

• It is evident that such sites are part of a broader spectrum of social networking sites and hence it is important that the site can easily integrate with these so that users can create their own personal professional digital environment, EvidenceNet will need to think about what range of social networking tools it would like to promote and how these might be harnessed to meet the needs of its community.

• Issue of metadata, tagging and curation remain. Not all OER-related activities are properly tagged or aggregated. Implications for design and usability: keyword searches and OER tag Clouds also prevalent. An issue of curation and adding tags maybe considered if Cloudworks is deemed to function as a social resource; and also classification of relevant OER issues. An implication about sustainability, curation and cross-referencing emerges. It would be great to add this in the equivalent issue around OER research from the 2010 meeting.

• There are also in situ activities facilitated by existing communities that share similar interpretative resources and knowledge of issues around OER (e.g. OLnet pilot workshop; Hewlett meetings).

• In situ guidance and support prove valuable for instigation of discussion in physical events.

• Archival and social are equally important and perhaps an additional dimension of Cloudworks as a social archive maybe considered.

• Updatability and sustained interaction/contribution within the specific Cloudscapes remains an issue.

We believe that findings will inform implications about the design of the site and its purpose as both as dialogic resource and a social network for transparently mediating practice regarding teaching, learning and educational research in an open fashion. More generally we think this case study has important implications for how social media can be used to support evidence-informed approaches to practice; such as highlighting the importance of careful structuring of Cloudscapes, the role of key champions to facilitate discussion and the specific functionality (such as adding links and references) that enable evidence-informed approaches to be adopted. There is scope for further work on how best to encourage, support and evaluate the use of the site for social archiving.
6. References


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Hatakka, M. (2009), 'Build it and they will come? – Inhibiting factors for reuse of open content in developing countries', in *EJISDC*


McAndrew, P.; Santos, A.; Lane, A.; Godwin, S.; Okada, A.; Wilson, T.; Connolly, T.;


Appendix: Table: Communication Patterns in the OU Virtual Conference

<table>
<thead>
<tr>
<th>Communication patterns</th>
<th>Informational</th>
<th>Practical</th>
<th>Social</th>
</tr>
</thead>
<tbody>
<tr>
<td>OU Learning &amp; Tech Conference</td>
<td>Conference contributions blending with sharing resource or work/in progress</td>
<td>Sharing of practice</td>
<td>Informative modes of address combined with personal narratives to invite purposeful feedback</td>
</tr>
<tr>
<td>Narrative/Presentation Annotation: 'This cloud presents a short video presentation created for the OU 2010 Conference Learning in an open world. It describes work being carried out as part of the development of the new IT and Computing course TU100 My Digital Life (out in October 2011).’ Multimedia contributions</td>
<td>'Part 1 (B4) is structured around the tasks involved in creating a video from stills with a soundtrack using Picasa and Audacity. I used these same tools to prepare the conference contribution.' 'The video prepared as part of the course materials includes a soundtrack put together from piano samples taken from the FreeSound Project and some recordings of my daughter’s voice, as well as images chosen from the Creative Commons pool in Flickr. [it] uses a soundtrack (already a remix) from ccMixter. Students in the course will be given a Media Database compiled from various open content sources.’</td>
<td>'This is amazing. I think it also relates to one of Cloudworks’ principle aims...’</td>
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<tr>
<td></td>
<td>Multimedia contributions</td>
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<tr>
<td></td>
<td>• Annotated Video presentation</td>
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<td>• Embedded external video</td>
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<td></td>
<td>• Repurposed / responsive video</td>
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<td>’The above video and cloud was created to prompt discussion about what you think a Design Atelier is?’ <a href="http://cloudworks.ac.uk/cloud/view/3981">http://cloudworks.ac.uk/cloud/view/3981</a></td>
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<td></td>
<td>Live blogging of live session presentations</td>
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<td>'Notes from Joe Smith - Open to Knowing About Climate Change Research on learning and teaching.....' <a href="http://cloudworks.ac.uk/cloud/view/2976">http://cloudworks.ac.uk/cloud/view/2976</a> [extra content] 2nd day live blogging [extra content]</td>
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<td><a href="http://cloudworks.ac.uk/cloud/view/2978">http://cloudworks.ac.uk/cloud/view/2978</a></td>
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</tr>
<tr>
<td><a href="http://cloudworks.ac.uk/cloud/view/4039">http://cloudworks.ac.uk/cloud/view/4039</a></td>
<td>‘I use it as a kind of “let me blow your mind into little bits before I help you to rebuild it” exercise and once they have worked out that they have to read fast, they really get into it (its the music!), but at the start their understanding is minimal.’</td>
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<td><a href="http://cloudworks.ac.uk/cloud/view/2977">http://cloudworks.ac.uk/cloud/view/2977</a></td>
<td>Guidance</td>
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<td>OU iSpot Links: Neighbourhood nature [link]: <a href="http://cloudworks.ac.uk/cloud/view/2977">http://cloudworks.ac.uk/cloud/view/2977</a></td>
<td>Want to contribute something about your project, work or research to the OU conference taking place online on 22 to 23 June 2010? We'd love to have it! Unlike previous conferences where papers are selected, we want non-paper based contributions and we accept anything (as long as it's relevant and not rude). [conference instructions]</td>
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<td>‘Thank you for your (as usual!) insightful comments... During this morning's sessions I was thinking about the tensions you raised above and ended up wondering about the idea of 'vulnerability' that seems to be so closely associated with openness.’</td>
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<td>‘You are raising important points...’</td>
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<td>Humor &amp; familiarity</td>
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<td>If you liked 'The Machine' (yes, a Foucauldian flavour ;-) you might be interested in the presentation linked to on the side panel. Great to hear you got enthused, Mandy - go on, grab your machine and create a little something ;-)</td>
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<td>Thanks Martin - even the thought of being awarded a virtual cake is a nice one.</td>
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<td>Deliberative</td>
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<td>Thank you for continuing the conversation, Mandy - it seems that disciplinary boundaries are being pushed in all sectors of education, aren’t they? ‘Questions for you are therefore...</td>
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<td>1. What do you think of this design storyboard?</td>
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<td>2. What would make these widgets 'killer apps' for you?’</td>
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