

## 1 Our Systematic mapping process

**Data Integration Environment facet** (See table ??). Represents the environment (architecture and deployment) in which data integration is being applied. The dimensions to this facet are: Cloud, Data Warehouse, Federated Database and Multi-cloud.

Dimension	Publication
Cloud	[1–5, 7, 19, 24, 28, 38, 39, 43, 44, 46, 47, 49, 53, 62, 63, 65, 70, 76, 77, 79, 80, 98–100, 104, 105, 107, 108, 110, 111]
Data Warehouse	[17, 50, 89]
Federated Database	[26, 79, 103]
Multi-cloud	[25, 26, 97]

Table 1: Data Integration Environment facet

**Data Integration Description facet** (See table ??). Indicates the strategy used by authors in order to achieve data integration. The dimensions to this facet are: Knowledge, Metadata and Schema.

Dimension	Publication
Knowledge	[25, 65]
Metadata	[5, 17, 38]
Schema	[24, 26, 28, 39, 44, 50, 65, 79, 89, 103, 110]

Table 2: Data Integration Description facet

**Data Quality facet** (See table ??). Refers to data quality parameters applied in the publication. The dimensions are: Confidentiality, Privacy, Security, SLA, Data Protection, Data Provenance and Others. Note that a publication is classified in the SLA dimension when it does not focus on a specific quality parameter, but in general uses a SLA contract in order to specify one or more.

**SLA facet** (See table ??). This facet is devote to present how the SLA is mainly used in the publication. The dimension for this facet are: Language, Model, Resources and Security. It is important to see that SLA appears as a dimension and as a facet. As a facet, we are interest in the way SLA is used. As a dimension, it is just to indicate that the work applies SLA in your solution.

**Contribution facet** (See table ??). Express the kind of contribution proposed by the author. The dimensions are Tool, Literature Analysis, Method, Model, Process and Extended Study.

**Research facet** (See table ??). Dedicates to classify in which kind of research the publication can be fitted in. The dimensions to this facet are: Evaluation research, Validation research, Solution proposal and Opinion papers.

## References

1. An Efficient Dictionary and Lingual Keyword based Secure Search Scheme in Cloud Storage.

Dimension	Publication
Confidentiality	[6–8, 42]
Privacy	[7, 8, 16, 18, 19, 38, 42, 81, 99, 100]
Security	[7, 38, 62, 97, 103, 113]
SLA	[9–11, 16, 20, 21, 27, 25, 29–37, 40–42, 45, 48, 51, 52, 54–60, 64, 66, 68, 69, 71, 73–75, 78, 81–88, 91–96, 101, 102, 106, 112–114]
Data Protection	[1, 6, 81]
Data Provenance	[25]
Others	[26, 97, 108]

Table 3: Data Quality facet

Dimension	Publication
Language	[14, 64, 68, 71, 91, 92, 101]
Model	[9–12, 14–16, 20, 21, 23, 25, 29–37, 40–42, 48, 51, 52, 54–58, 60, 66, 69, 73–75, 78, 81–85, 87, 88, 91, 93–96, 101, 106, 114]
Resources	[2, 87, 112]
Security	[7, 27, 38, 45, 58, 59, 62, 66, 83, 84, 86, 97, 102, 103, 113]

Table 4: SLA facet

2. Distributed Query Processing on the Cloud: the Optique Point of View (Short Paper).
3. Measuring Elasticity for Cloud Databases.
4. Non-blocking Algorithm for Eventual Consistent Replicated Database on Cloud.
5. The eCloudManager Intelligence Edition Semantic Technologies for Enterprise Cloud Management.
6. Trustworthy Data from Untrusted Databases.
7. Volume 1 No. 13 Moving Towards Non-Relational Databases.
8. Web Service Integration Using Cloud Data Store.
9. Customized SLAs in Cloud Environments. In *2013 Eighth International Conference on P2P, Parallel, Grid, Cloud and Internet Computing*, pages 262–269. IEEE, October 2013.
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Dimension	Publication
Tool	[2, 10–12, 17, 19, 24, 26, 27, 30–32, 35, 36, 38, 42, 43, 47–49, 52, 54, 57, 58, 62, 72, 76, 77, 87–89, 92, 97–99, 101, 103, 112, 113]
Literature Analysis	[3, 5, 7, 8, 13, 14, 22, 23, 39, 66, 73, 79, 82, 86, 107, 111]
Method	[1, 4, 27, 44, 46, 75, 85, 90, 109, 110]
Model	[9, 15–18, 20, 21, 24–26, 28, 29, 33, 34, 37, 50, 51, 53, 55, 56, 59–61, 63–65, 67–71, 76–78, 80, 83, 84, 91–96, 100, 102, 105, 106, 114]
Process	[40, 41, 45, 74, 100, 108]
Extended Study	[6, 81, 104]

Table 5: Contribution facet

Dimension	Publication
Evaluation research	[20, 48, 82, 22, 39, 43, 79, 98, 107, 110, 111, 3, 8]
Validation research	[10–12, 15, 16, 21, 27, 25, 30–35, 37, 40, 41, 74, 42, 45, 51, 52, 54–57, 114, 59, 60, 64, 68, 78, 85, 93, 96, 53, 99, 105, 108, 3, 103]
Solution proposal	[20, 58, 66, 69, 71, 73, 75, 9, 36, 81–85, 87, 88, 91, 92, 94, 95, 101, 102, 106, 112, 113, 17–19, 24, 26, 28, 44, 46, 47, 49, 53, 61–63, 65, 67, 70, 72, 76, 77, 80, 89, 90, 97–100, 104, 105, 108–110, 6, 1, 4, 2, 38, 50]
Opinion paper	[14, 13, 23, 29, 86, 22, 39, 5, 7]

Table 6: Research facet

16. David S. Allison and Miriam A. M. Capretz. Furthering the growth of cloud computing by providing privacy as a service. pages 64–78, August 2011.
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