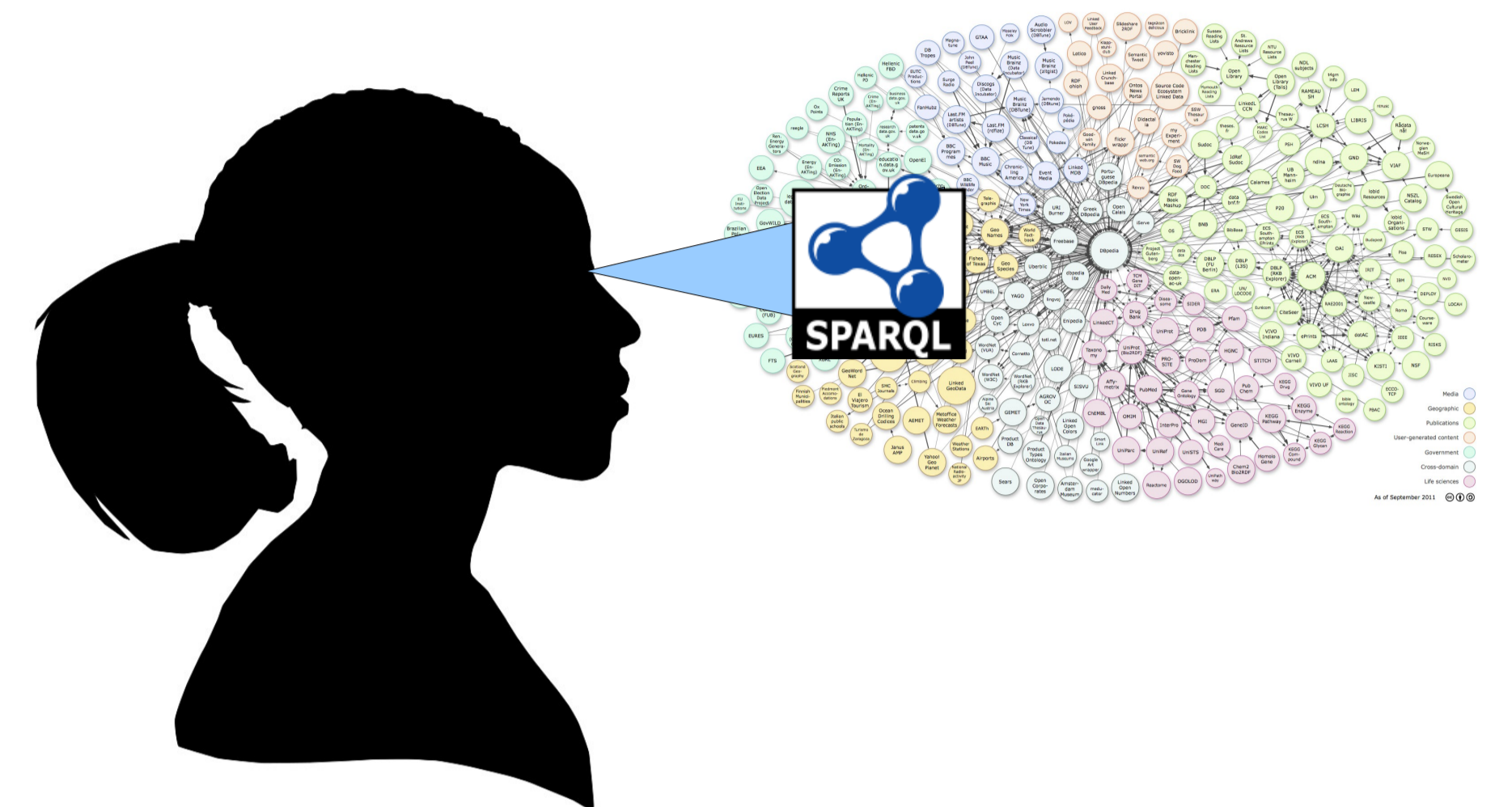


### Introduction

The linked data cloud is mainly accessible in two ways: SPARQL queries and direct RDF requests. Querying linked data on the Web using SPARQL is different to querying (relational) databases. First, linked data connect various data sources with heterogeneous data. Second, the schema and type statements are often unknown to the user or even missing in the data source. Thus, querying linked data means to pose queries on various data sources without information about the vocabulary and structure of the data. In order to assist users when writing SPARQL queries, we show SPACE, a tool to support autocompletion of SPARQL queries. SPACE aims at enhancing usability of SPARQL query writing by providing suggestions of different possible query formulations to the user.

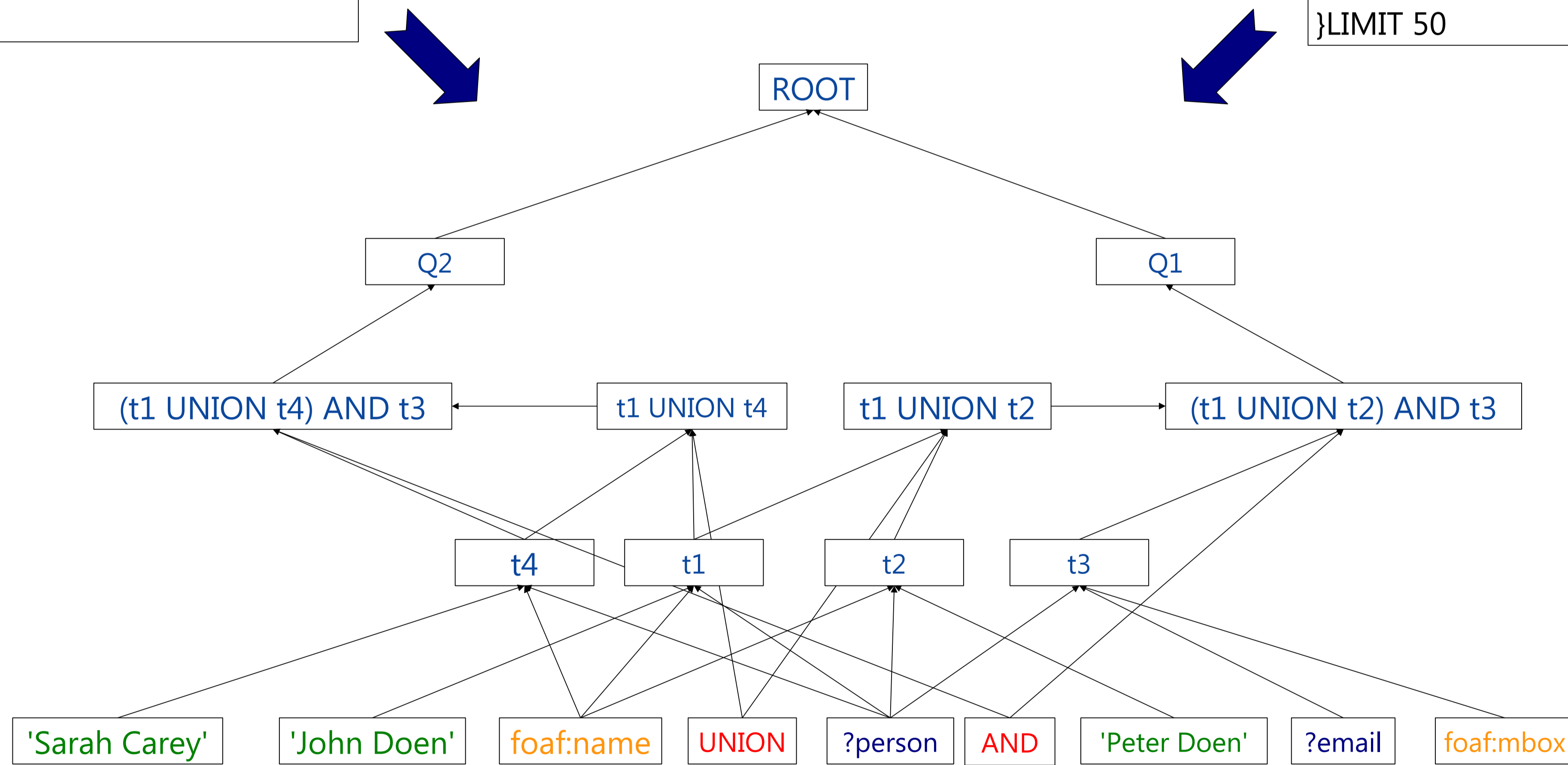


### Method

We explore query logs available from SPARQL endpoints. These queries reveal how resources are related and they reflect the user interests on resources and their relationships. Our tool takes as input SPARQL query logs and builds an index structure for efficient and fast computation of query suggestions.

```
PREFIX foaf: <http://xmlns.com/foaf/0.1/>
SELECT ?person ?email
FROM <http://dig.csail.mit.edu/timbl/foaf.rdf>
WHERE {
  {?person foaf:name "John Doen".}
  UNION
  {?person foaf:name "Peter Doen".}
  ?person foaf:mbox ?email.
}LIMIT 50
```

```
PREFIX foaf: <http://xmlns.com/foaf/0.1/>
SELECT ?person ?email
FROM <http://dig.csail.mit.edu/timbl/foaf.rdf>
WHERE {
  {?person foaf:name "John Doen".}
  UNION
  {?person foaf:name "Peter Doen".}
  ?person foaf:mbox ?email.
}LIMIT 50
```



### Tool

To demonstrate SPACE, we use available query logs from the USEWOD Data Challenge 2013.

<http://west.uni-koblenz.de/Research/systems/SPACE>

