**2. Background research**

As far back as 1996 (Streeter, Kraut, Lucas & Caby 1996) Open Data was recognized as important for business. Open data allows sharing of digital data with customers, suppliers and others. Investment in this area gains a business competitive advantage. In 1996 the Internet was in its early days as an information provider and (Streeter et al. 1996) found it (along with Bitnet and Tymnet) as bitty with different user communities. While they were calling for something like the Internet as it is in 2012 they also prefigured the use of open data from companies and public institutions which is provided by only a few entities even now. They compared the US at the time (patchy coverage) vs. France at the time (widespread use of Minitel network). They analysed three statements, one of which was “Open networks improve business productivity, efficiency, and quality of service.”. They found that firms using open networks were more effective and richer and had better relationships with their customers. They found that increased infrastructure would help small companies by reducing money and knowledge disadvantages. The increased infrastructure from 1996-2012 has proved that in Spades but there is scope for greater improvement if extensive open data was provided by all public companies.

In (Auer, Bizer, Kobilarov, Lehmann, Cyganiak & Ives 2007) the DBpedia program was outlined, which read information from Wikipedia and make this available on the Internet. This also linked other datasets to Wikipedia, and made it all available via sophisticated queries. (Auer et al. 2007) pointed out that most people in the industry see that bringing all the world’s structured information and making it available to search queries is a very worthwhile pursuit. This would extend greatly the current scope for mash-ups. This was very bitty at the time and they expected the Semantic Web (the next generation of the Web) idea to provide a framework for providing and returning all the world’s data via structured queries. In providing a method for storing and allowing retrieval of Wikipedia they faced many problems:

* Wikipedia was huge (1.95 million English articles).
* Wikipedia supported over 250 languages.
* Wikipedia is constantly being revised and edited by multiple authors
* Wikipedia has inconsistent taxonomies (Section Headings etc.).

DBpedia datasets can be used by third-party programs or used online by some DBpedia UIs.

The internet was searched in order to find open data which could be used as input to provide a workable project using Enterprise Frameworks. The Fingal Open data site[[1]](#footnote-1)is one which is close to home. This has over 170 data sets in CSV and XML. These include;

* A list of Art Centres
* Weather Statistics
* Cinemas
* Libraries (including Mobile)
* Tourist Information Locations
* Playing pitches
* Airports
* Train Stations

The New York city open data site[[2]](#footnote-2) is another source of data sets which is extensive. It claims over 1000 data sites. Included are:

* Film Shooting Locations
* Restaurant Locations
* Park Locations
* Public Transport (Subway, Buses, Rail)
* Museums and Galleries
* Green Market Locations
* Landmarks
* Map of Monuments
* Library Branches

Our team considered these open data sources and we thought about a mash-up between two datasets such as Fingal Cinemas and their nearby Train Stations displayed on a Map. The Cinemas would be on a drop-down menu and a map would display the cinema and nearest Train stations. We also considered a Restaurant Rating system. In this, Restaurant owners would register and provide information about their set menus and allow diners to view these along with location information. In the end we went for a mash-up between New York Film Shooting Locations and displaying the nearest restaurants within a user-defined radius. This needed a database of shooting locations and restaurants, an XML reader of shooting locations, a view allowing film and location to be chosen and restaurant information to be entered and displayed, business logic to discover the nearby restaurants given a latitude and longitude and an output API allowing further use of our data.

**13. References**

Auer, S., Bizer, C., Kobilarov, G., Lehmann, J., Cyganiak, R., & Ives, Z. (2007) ‘DBPedia: A Nucleus for a Web of Open Data’ In: *The Semantic Web: Lecture Notes in Computer Science.* Berlin:Springer, 722-735.

Streeter, L.A., Kraut, R.E., Lucas, H.C. & Caby, L. (1996) ‘How Open Data networks Influence Business Performance and Market Structure’. *Communications of the ACM* 39 (7): 62-73.

1. http://data.fingal.ie/ [↑](#footnote-ref-1)
2. https://nycopendata.socrata.com/ [↑](#footnote-ref-2)