Assignment 1: Evaluate name entity linking

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This assignment compares the quality of named entity linking using [Open Calais (http://www.opencalais.com/opencalais-demo/)](http://www.opencalais.com/opencalais-demo/) and [DBPedia Spotlight (http://dbpedia-spotlight.github.io/demo/)](http://dbpedia-spotlight.github.io/demo/) for two fragments of English text (the Open Calais demonstrator does not support Dutch).

Sometimes recognizing amounts, dates, distances etc. is considered part of this task. It is not included here.

First text fragment

[Unesco about the Silkroad (http://en.unesco.org/silkroad/about-silk-road)](http://en.unesco.org/silkroad/about-silk-road) Indeed, the man who is often credited with founding the Silk Roads by opening up the first route from China to the West in the 2nd century BC, General Zhang Qian, was on a diplomatic mission rather than a trading expedition. Sent to the West in 139 BC by the Han Emperor Wudi to ensure alliances against the Xiongnu, the hereditary enemies of the Chinese, Zhang Qian was captured and imprisoned by them. Thirteen years later he escaped and made his way back to China. Pleased with the wealth of detail and accuracy of his reports, the emperor sent Zhang Qian on another mission in 119 BC to visit several neighbouring peoples, establishing early routes from China to Central Asia.

Open Calais

Indeed, the man who is often credited with founding the Silk Roads by opening up the first route from **China [country]** to the West in the 2nd century **BC [province or state]**, **General [postion] Zhang Qian [person]**, was on a diplomatic mission rather than a trading expedition. Sent to the West in 139 **BC [province or state]** by the Han **Emperor [position] Wudi [person]** to ensure alliances against the Xiongnu, the hereditary enemies of the Chinese, **Zhang Qian [person]** was captured and imprisoned by them. Thirteen years later **he [person]** escaped and made **his [person]** way back to **China [country]**. Pleased with the wealth of detail and accuracy of **his [person]** reports, **the emperor [position]** sent **Zhang Qian [person]** on another mission in 119 BC to visit several neighbouring peoples, establishing early routes from **China [country]** to **Central Asia [region]**

DBpedia Spotlight

Indeed, the man who is often credited with founding the Silk Roads (http://dbpedia.org/resource/Silk_Road) by opening up the first route from China (http://dbpedia.org/resource/China) to the West in the 2nd century BC, General Zhang Qian (http://dbpedia.org/resource/Zhang_Qian), was on a diplomatic mission (http://dbpedia.org/resource/Diplomatic_mission) rather than a trading expedition. Sent to the West in 139 BC by the Han Emperor Wudi (http://dbpedia.org/resource/Emperor_Wu_of_Han) to ensure alliances against the Xiongnu (http://dbpedia.org/resource/Xiongnu), the hereditary enemies of the Chinese, Zhang Qian (http://dbpedia.org/resource/Zhang_Qian) was captured and imprisoned by them. Thirteen years later he escaped and made his way back to China (http://dbpedia.org/resource/China). Pleased

with the wealth of detail and accuracy of his reports, the emperor sent [Zhang Qian (http://dbpedia.org/resource/Zhang_Qian)](http://dbpedia.org/resource/Zhang_Qian) on another mission in [119 BC (http://dbpedia.org/resource/119_BC)](http://dbpedia.org/resource/119_BC) to visit several neighbouring peoples, establishing early routes from [China (http://dbpedia.org/resource/China)](http://dbpedia.org/resource/China) to [Central Asia (http://dbpedia.org/resource/Tarim_Basin)](http://dbpedia.org/resource/Tarim_Basin).

Manual Annotation

Indeed, the man who is often credited with founding the Silk Roads **[geographical feature]** by opening up the first route from China **[country]** to the West **[region]** in the 2nd century BC, General **[position]** Zhang Qian **[person]**, was on a diplomatic mission rather than a trading expedition. Sent to the West **[region]** in 139 BC by the Han **[people]** Emperor **[position]** Wudi **[person]** to ensure alliances against the Xiongnu **[people]**, the hereditary enemies of the Chinese **[people]**, Zhang Qian **[person]** was captured and imprisoned by them. Thirteen years later he escaped and made his way back to China **[country]**. Pleased with the wealth of detail and accuracy of his reports, the emperor sent Zhang Qian **[person]** on another mission in 119 BC to visit several neighbouring peoples, establishing early routes from China **[country]** to Central Asia **[region]**.

Second text fragment

[the Guardian about a new series of the Cold Feet tv series (https://www.theguardian.com/media/2016/sep/06/cold-feet-gets-warm-welcome-as-6m-tune-in-for-new-series)](https://www.theguardian.com/media/2016/sep/06/cold-feet-gets-warm-welcome-as-6m-tune-in-for-new-series)

It was 13 years since Cold Feet last aired new episodes, but the sitcom's fans proved as loyal as ever with more than 6 million tuning in to its return on Monday night.

The return of the comedy, which stars James Nesbitt, Hermione Morris, John Thomson and Robert Bathurst, drew an average audience of 6.1 million and a 29% share of all TV viewing between 9pm and 10pm.

The show, which tells the tale of three thirtysomething couples in Manchester, originally ran for five series between 1998 and 2003.

It was one of ITV's biggest shows at the time, described by some as the UK's answer to Friends or Thirtysomething, with almost 11 million viewers tuning into its tear-stained finale.

ITV will be pleased with the popularity of the first episode of the eight-part series even if Kevin Lygo, the broadcaster's new director of television, told an audience at the Edinburgh TV festival that he was not completely sure he would have commissioned its revival.

The show easily won the 9pm slot on Monday night, albeit not against the strongest of competition with BBC1 airing Crimewatch, BBC2 Ripper Street and Channel 4 999: What's Your Emergency?

Open Calais

It was 13 years since Cold Feet last aired new episodes, but the sitcom's fans proved as loyal as ever with more than 6 million tuning in to its return on Monday night.

The return of the comedy, which stars **James Nesbitt [person]**, **Hermione Morris [person]**, **John Thomson [person]** and **Robert Bathurst [person]**, drew an average audience of 6.1 million and a 29% share of all TV viewing between 9pm and 10pm.

The show, which tells the tale of three thirtysomething couples in **Manchester [city]**, originally ran for five series between 1998 and 2003.

It was one of **ITV [organisation]**'s biggest shows at the time, described by some as the **UK [country]**'s answer to Friends or Thirtysomething, with almost 11 million viewers tuning into its tear-stained finale.

ITV [organization] will be pleased with the popularity of the first episode of the eight-part series even if **Kevin Lygo [person]**, the broadcaster's new **director of television [position]**, told an audience at **the Edinburgh TV festival [entertainment award event]** that **he [person]** was not completely sure **he [person]** would have commissioned its revival.

The show easily won the 9pm slot on Monday night, albeit not against the strongest of competition with BBC1 airing Crimewatch, BBC2 Ripper Street and Channel 4 999: What's Your Emergency?

DBpedia Spotlight

It was 13 years since Cold Feet (http://dbpedia.org/resource/Pilot_(Cold_Feet)) last aired new episodes, but the sitcom (http://dbpedia.org/resource/Sitcom)'s fans proved as loyal as ever with more than 6 million tuning (http://dbpedia.org/resource/Tuner_(radio)) in to its return on Monday night.

The return of the comedy, which stars James Nesbitt (http://dbpedia.org/resource/James_Nesbitt), Hermione (http://dbpedia.org/resource/Hermione_Granger) Morris, John Thomson (http://dbpedia.org/resource/John_Thomson_(comedian)) and Robert

Bathurst (http://dbpedia.org/resource/Robert_Bathurst), drew an average audience of 6.1 million and a 29% share of all TV viewing between 9pm and 10pm.

The show, which tells the tale of three thirtysomething (http://dbpedia.org/resource/Thirtysomething_(TV_series)) couples in Manchester (http://dbpedia.org/resource/Manchester), originally ran for five series between 1998 and 2003.

It was one of ITV (http://dbpedia.org/resource/ITV_(TV_network))'s biggest shows at the time, described by some as the UK (http://dbpedia.org/resource/United_Kingdom)'s answer to Friends or Thirtysomething (http://dbpedia.org/resource/Thirtysomething_(TV_series)), with almost 11 million viewers tuning (http://dbpedia.org/resource/Tuner_(radio)) into its tear-stained finale.

ITV (http://dbpedia.org/resource/ITV_(TV_network)) will be pleased with the popularity of the first episode of the eight-part series even if Kevin Lygo (http://dbpedia.org/resource/Kevin_Lygo), the broadcaster's new director of television, told an audience at the Edinburgh TV festival (http://dbpedia.org/resource/Edinburgh_International_Television_Festival) that he was not completely sure he would have commissioned (http://dbpedia.org/resource/Green-light) its revival.

The show easily won the 9pm slot on Monday night, albeit not against the strongest of competition with BBC1 (http://dbpedia.org/resource/BBC_One) airing Crimewatch (http://dbpedia.org/resource/Crimewatch), BBC2 (http://dbpedia.org/resource/BBC_Two) Ripper Street (http://dbpedia.org/resource/Ripper_Street) and Channel 4 (http://dbpedia.org/resource/Channel_4) 999: What's Your Emergency?

Manual Annotation

It was 13 years since Cold Feet **[product]** last aired new episodes, but the sitcom's fans proved as loyal as ever with more than 6 million tuning in to its return on Monday night.

The return of the comedy, which stars James Nesbitt **[person]**, Hermione Morris **[person]**, John Thomson **[person]** and Robert Bathurst **[person]**, drew an average audience of 6.1 million and a 29% share of all TV viewing between 9pm and 10pm.

The show, which tells the tale of three thirtysomething couples in Manchester **[city]**, originally ran for five series between 1998 and 2003.

It was one of ITV's **[organisation]** biggest shows at the time, described by some as the UK's **[country]** answer to Friends **[product]** or Thirtysomething **[product]**, with almost 11 million viewers tuning into its tear-stained finale.

ITV **[organisation]** will be pleased with the popularity of the first episode of the eight-part series even if Kevin Lygo **[person]**, the broadcaster's new director of television **[postion]**, told an audience at the Edinburgh TV festival **[event]** that he was not completely sure he would have commissioned its revival.

The show easily won the 9pm slot on Monday night, albeit not against the strongest of competition with BBC1 **[product]** airing Crimewatch **[product]**, BBC2 **[product]** Ripper Street **[product]** and Channel 4 **[product]** 999: What's Your Emergency **[product]**?

Counts and discussion

DBpedia Spotlight does not categorize the named entities found. If the entity found refers to the correct DBpedia page it is counted as correct. Open Calais also does pronoun resolution. It works correctly and is not taken into account.

In the table below the annotations are counted. Values are presented in a table cell as | correct / wrong |.

type correct	text1 manual	text1 Open Calais	text1 DBpedia Spotlight	text2 Open Calais	text2 DBpedia Spotlight	text2 manual
person	4/0	4/0	4/0			
people	3/0	0/0	1/0			
city	0/0	0/0	0/0			
region	3/0	1/0	0/1			
province or state	0/0	0/2	0/0			
country	3/0	3/0	3/0			
geographical feature	1/0	0/0	1/0			
event	0/0	0/0	0/0			
position	2/0	2/1	0/0			
organization	0/0	0/0	0/0			
product	0/0	0/0	0/0			
no named entity	0	0	2			

Open Calais text 1

Should position be considered a named entity?

the emperor vs Emperor Wu

BC British Colombia in stead of before Christ.

The Chinese and the West are not.

DBpedia

[diplomatic mission] and [113 BC] are recognized. The Chinese and the West are not.