|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Cluster 1: Washing clothes** | **DBpedia** | **ConceptNet** | **Nell** |
| 1 | Empty all pockets before washing | 0 clicks,  1 minute | 0 clicks,  1 minute | x |
| 2 | The cleaner the better | x | 0 clicks,  1 minute | x |
| 3 | Separate clothes by color and by material | 0 clicks,  1 minute | 0 clicks,  1 minute | x |
| 4 | Use washing powder, pods, or other detergent | 1 click,  1 minute | 0 clicks,  1 minute | 3 clicks,  3 minutes |
| 5 | Choose the right washing program | x | x | 3 clicks,  5 minutes |
| 6 | Put clothes into washing drum | x | x | 3 clicks,  5 minutes |
| 7 | Close the door before washing | x | x | x |
| 8 | Reverse the clothes before washing | x | x | 3 clicks,  7 minutes |
| 9 | How to dry clothes faster | 2 clicks,  1 minute | x | 3 clicks,  6 minutes |
| 10 | All clothes are wet after they are washed | x | 0 clicks,  1 minute | 3 clicks,  4 minutes |
| 11 | Apply the right temperature for the right material | x | x | x |
| 12 | Water is required to wash clothes | 0 clicks,  1 minute | 0 clicks,  1 minute | x |
| 13 | Do not use bleach for other colors than white | x | x | x |
| 14 | New colored clothes can release color and affect other clothes they're washed with | x | 0 clicks,  1 minute | x |
| 15 | A washing machine requires electricity | x | x | 3 clicks,  3 minutes |
|  | Easy | 5 | 7 | 7 |
|  | Hard | 10 | 8 | 8 |
|  | Average clicks | 0.6 | 0 | 3 |

**Results cluster 1: Washing clothes**

**Table I. Results cluster 1: Washing clothes**

**Accessed links cluster 1:**

DBPEDIA

1. <http://dbpedia.org/page/Washing_machine>

2. x

3. <http://dbpedia.org/page/Washing_machine>

4. <http://dbpedia.org/page/Washing_machine>, <https://en.wikipedia.org/wiki/Washing_machine>

5. x

6. x

7. x

8. x

9.<https://en.wikipedia.org/wiki/Washing_machine>, <http://dbpedia.org/page/Combo_washer_dryer>, <http://dbpedia.org/page/Clothes_dryer>

10. x

11. x

12. <https://en.wikipedia.org/wiki/Washing_machine>

13. x

14. x

15. x

Conceptnet

1. <http://conceptnet.io/c/en/washing_clothes>

2. <http://conceptnet.io/c/en/washing_clothes>

3. <http://conceptnet.io/c/en/washing_clothes>

4. <http://conceptnet.io/c/en/washing_clothes>

5. x

6. x

7. x

8. x

9. x

10. <http://conceptnet.io/c/en/washing_clothes>

11. x

12. <http://conceptnet.io/c/en/washing_clothes>

13. x

14. <http://conceptnet.io/c/en/washing_clothes>

15. x

NELL

1. x

2. x

3. x

4. <http://rtw.ml.cmu.edu/rtw/kbbrowser/>, <http://rtw.ml.cmu.edu/rtw/kbbrowser/personalcareitem:washing_detergent_powder>, <https://www.google.com/search?q=%22washing+detergent+powder%22>, <https://www.omo.com/za/laundry/laundry-tips/washing-tips/what-type-of-laundry-detergent-should-i-use.html>

5.<http://rtw.ml.cmu.edu/rtw/kbbrowser/>, <http://rtw.ml.cmu.edu/rtw/kbbrowser/bathroomitem:automatic_washing_machine>, <https://www.google.com/search?q=%22Automatic+washing+machine%22>, <https://en.wikipedia.org/wiki/Washing_machine>

6. <http://rtw.ml.cmu.edu/rtw/kbbrowser/>, <http://rtw.ml.cmu.edu/rtw/kbbrowser/physicalaction:clothes_washing>, <https://www.google.com/search?q=%22clothes-washing%22>, <https://www.persil.com/uk/laundry/laundry-tips/washing-tips/wash-clothes-washing-machine.html>

7. x

8. <http://rtw.ml.cmu.edu/rtw/kbbrowser/>, <http://rtw.ml.cmu.edu/rtw/kbbrowser/physicalaction:washing_clothes>, <https://www.google.com/search?q=%22washing+clothes%22>, <https://www.wikihow.com/Wash-Your-Clothes>

9. <http://rtw.ml.cmu.edu/rtw/kbbrowser/>, <http://rtw.ml.cmu.edu/rtw/kbbrowser/bathroomitem:washing_machine_dryer>, <https://www.google.com/search?q=%22washing+machine+dryer%22>, <https://www.whitegoodshelp.co.uk/pros-cons-washer-dryer-v-separate/>

10. <http://rtw.ml.cmu.edu/rtw/kbbrowser/>, <http://rtw.ml.cmu.edu/rtw/kbbrowser/physicalaction:washing_clothes>, <https://www.google.com/search?q=%22washing+clothes%22>, <https://www.wikihow.com/Wash-Your-Clothes>

11. x

12. x

13. x

14. x

15. <http://rtw.ml.cmu.edu/rtw/kbbrowser/>, <http://rtw.ml.cmu.edu/rtw/kbbrowser/visualizableobject:washing_machine>, <https://en.wikipedia.org/wiki/Washing_machine>

**Results cluster 2: Doing dishes**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Cluster 2: Doing dishes** | **DBpedia** | **ConceptNet** | **Nell** |
| 1 | You need some detergent/soap | 0 clicks,  1 minute | 3 clicks  6 minutes | 3 clicks,  4 minutes |
| 2 | You need water | 0 clicks,  1 minute | 3 clicks  7 minutes | 3 clicks,  3 minutes |
| 3 | Specific order (Rinse the dishes, then use soap to clean and finally wash it off) | 0 clicks,  1 minute | x | 3 clicks,  3 minutes |
| 4 | Applying warm water is more effective than cold water | 1 click,  1 minute | x | 3 clicks,  3 minutes |
| 5 | Use the soft side of the sponge for scratch sensitive objects / objects with special coatings | x | x | x |
| 6 | Dry dishes with a towel | x | x | 3 clicks,  5 minutes |
| 7 | Not using the same sponge you use for washing cutting boards where you cut raw meat for regular utensils | x | x | x |
| 8 | Be cautious as most dishes can break fairly easily | x | x | x |
| 9 | Clean your dishwasher once in a while |  | x | x |
| 10 | The sponge should be clean | 3 clicks,  6 minutes | x | 3 clicks,  4 minutes |
| 11 | Dishwasher requires electricity | 0 clicks,  1 minute | x | x |
| 12 | Plastic containers may deform when put into the machine | x | x | x |
|  | Easy | 6 | 2 | 6 |
|  | Hard | 6 | 10 | 6 |
|  | Average clicks | 0.7 | 3 | 3 |

**Table II. Results cluster 2: Doing dishes**

**Accessed links cluster 2:**

DBpedia:

1. <http://dbpedia.org/page/Dishwasher>

2. <http://dbpedia.org/page/Dishwasher>

3. <http://dbpedia.org/page/Dishwasher>

4. <http://dbpedia.org/page/Dishwasher>

5. x

6. x

7. x

8. x

9. x

10. <http://dbpedia.org/page/Dishwasher> , <http://dbpedia.org/page/Category:Cleaning> , <http://dbpedia.org/page/Category:Cleaning_tools> , <http://dbpedia.org/page/Sponge_(material)>

11. <http://dbpedia.org/page/Dishwasher>

12. x

Conceptnet:

1. <http://conceptnet.io/c/en/dishwashing>, <http://conceptnet.io/c/en/washing_up>, <http://conceptnet.io/c/en/wash>, <http://conceptnet.io/c/en/soap>

2. <http://conceptnet.io/c/en/dishwashing>, <http://conceptnet.io/c/en/washing_up>, <http://conceptnet.io/c/en/wash>, <http://conceptnet.io/c/en/water>

3. x

4. x

5. x

6. x

7. x

8. x

9. x

10. x

11. x

12. x

Nell:

1. <http://rtw.ml.cmu.edu/rtw/kbbrowser/>, <http://rtw.ml.cmu.edu/rtw/kbbrowser/personalcareitem:dishwashing_soap>, <https://www.google.com/search?q=%22Dishwashing+Soap%22>, <https://en.wikipedia.org/wiki/Dishwasher_detergent>

2. <http://rtw.ml.cmu.edu/rtw/kbbrowser/>, <http://rtw.ml.cmu.edu/rtw/kbbrowser/automobilemodel:dishwashing>, <https://www.google.com/search?q=%22Dishwashing%22>, <https://en.wikipedia.org/wiki/Dishwashing>

3. <http://rtw.ml.cmu.edu/rtw/kbbrowser/>, <http://rtw.ml.cmu.edu/rtw/kbbrowser/automobilemodel:dishwashing>, <https://www.google.com/search?q=%22Dishwashing%22>, <https://en.wikipedia.org/wiki/Dishwashing>

4. <http://rtw.ml.cmu.edu/rtw/kbbrowser/>, <http://rtw.ml.cmu.edu/rtw/kbbrowser/automobilemodel:dishwashing>, <https://www.google.com/search?q=%22Dishwashing%22>, <https://en.wikipedia.org/wiki/Dishwashing>

5. x

6. <http://rtw.ml.cmu.edu/rtw/kbbrowser/>, <http://rtw.ml.cmu.edu/rtw/kbbrowser/automobilemodel:dishwashing>, <https://www.google.com/search?q=%22Dishwashing%22>, <https://en.wikipedia.org/wiki/Dishwashing>

7. x

8. x

9. x

10. <http://rtw.ml.cmu.edu/rtw/kbbrowser/>, <http://rtw.ml.cmu.edu/rtw/kbbrowser/automobilemodel:dishwashing>, <https://www.google.com/search?q=%22Dishwashing%22>, <https://en.wikipedia.org/wiki/Dishwashing>

11. x

12. x

**Results cluster 3: Vacuuming**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Cluster 3: Vacuuming** | **DBpedia** | **ConceptNet** | **Nell** |
| 1 | Vacuum cleaner requires electricity | 1 click,  3 minutes | x | 3 clicks,  4 minutes |
| 2 | Do not vacuum things that are too big | x | x | x |
| 3 | Use the vacuum tool to suck up dirt | 0 clicks,  1 minute | 1 click,  2 minutes | 3 clicks,  3 minutes |
| 4 | Small objects can be sucked in unintentionally, so be aware | x | x | x |
| 5 | The vacuum cleaner has to move around in order for you to clean your space | 1 click,  2 minutes | 1 click,  2 minutes | 3 clicks,  2 minutes |
| 6 | Change a full vacuuming bag for a new one | 2 clicks,  3 minutes | x | 3 clicks,  5 minutes |
| 7 | Use the two modes when switching from hard to soft floors | x | x | 3 clicks,  2 minutes |
| 8 | Extend the pole to reach difficult spots | x | x | x |
| 9 | Standard pattern: That you should shift to the front and the back | 1 click,  3 minutes | 1 click,  2 minutes | 3 clicks,  3 minutes |
| 10 | Dust goes into the vacuum cleaner | 0 clicks,  1 minute | 1 click,  2 minutes | 3 clicks,  4 minutes |
| 11 | A vacuum cleaner is not suitable for sticky objects or liquids. | 0 clicks,  1 minute | X | x |
| 12 | Do not forget to vacuum in corners | x | x | x |
| 13 | There have to be no dust, sand or waste on the floor, after vacuuming | 0 clicks,  1 minute | 1 click,  2 minutes | 3 clicks,  2 minutes |
| 14 | The cable limits its operational radius | 1 click,  2 minutes | x | 3 clicks,  3 minutes |
|  | Easy | 9 | 5 | 9 |
|  | Hard | 5 | 9 | 5 |
|  | Average clicks | 0.7 | 1 | 3 |

**Table III. Results cluster 3: Vacuuming**

**Accessed links cluster 3:**

DBpedia:

1. <http://dbpedia.org/page/Vacuum_cleaner>, <https://en.wikipedia.org/wiki/Vacuum_cleaner>

2.

3. <http://dbpedia.org/page/Vacuum_cleaner>

4.

5. <http://dbpedia.org/page/Vacuum_cleaner>, <https://en.wikipedia.org/wiki/Vacuum_cleaner>

6. <http://dbpedia.org/page/Vacuum_cleaner>, <https://home.howstuffworks.com/vacuum-cleaner.htm>, <https://home.howstuffworks.com/vacuum-cleaner1.htm>

7.

8.

9. <http://dbpedia.org/page/Vacuum_cleaner>, <https://home.howstuffworks.com/vacuum-cleaner.htm>

10. <http://dbpedia.org/page/Vacuum_cleaner>

11. <http://dbpedia.org/page/Vacuum_cleaner>

12. x

13. <http://dbpedia.org/page/Vacuum_cleaner>

14. <http://dbpedia.org/page/Vacuum_cleaner>, <https://en.wikipedia.org/wiki/Vacuum_cleaner>

Conceptnet:

1. x

2. x

3. <http://conceptnet.io/c/en/vacuum_cleaner>, <https://en.wiktionary.org/wiki/vacuum_cleaner>

4. x

5. <http://conceptnet.io/c/en/vacuum_cleaner>, <https://en.wiktionary.org/wiki/vacuum_cleaner>

6. x

7. x

8. x

9. <http://conceptnet.io/c/en/vacuum_cleaner>, <https://en.wiktionary.org/wiki/vacuum_cleaner>

10. <http://conceptnet.io/c/en/vacuum_cleaner>, <https://en.wiktionary.org/wiki/vacuum_cleaner>

11. x

12. x

13. <http://conceptnet.io/c/en/vacuum_cleaner>, <https://en.wiktionary.org/wiki/vacuum_cleaner>

14. x

NELL:

1. <http://rtw.ml.cmu.edu/rtw/kbbrowser/>, <http://rtw.ml.cmu.edu/rtw/kbbrowser/tool:vacuum_cleaners>, <https://www.google.com/search?q=%22Vacuum+Cleaners%22>, <https://en.wikipedia.org/wiki/Vacuum_cleaner>

2.

3.<http://rtw.ml.cmu.edu/rtw/kbbrowser/>, <http://rtw.ml.cmu.edu/rtw/kbbrowser/tool:vacuum_cleaners>, <https://www.google.com/search?q=%22Vacuum+Cleaners%22>, <https://en.wikipedia.org/wiki/Vacuum_cleaner>

4.

5. <http://rtw.ml.cmu.edu/rtw/kbbrowser/>, <http://rtw.ml.cmu.edu/rtw/kbbrowser/tool:vacuum_cleaners>, <https://www.google.com/search?q=%22Vacuum+Cleaners%22>, <https://en.wikipedia.org/wiki/Vacuum_cleaner>

6. <http://rtw.ml.cmu.edu/rtw/kbbrowser/>, <http://rtw.ml.cmu.edu/rtw/kbbrowser/tool:vacuum_cleaners>, <https://www.google.com/search?q=%22Vacuum+Cleaners%22>, <https://en.wikipedia.org/wiki/Vacuum_cleaner>

7. <http://rtw.ml.cmu.edu/rtw/kbbrowser/>, <http://rtw.ml.cmu.edu/rtw/kbbrowser/tool:vacuum_cleaners>, <https://www.google.com/search?q=%22Vacuum+Cleaners%22>, <https://en.wikipedia.org/wiki/Vacuum_cleaner>

8.

9. <http://rtw.ml.cmu.edu/rtw/kbbrowser/>, <http://rtw.ml.cmu.edu/rtw/kbbrowser/tool:vacuum_cleaners>, <https://www.google.com/search?q=%22Vacuum+Cleaners%22>, <https://en.wikipedia.org/wiki/Vacuum_cleaner>

10. <http://rtw.ml.cmu.edu/rtw/kbbrowser/>, <http://rtw.ml.cmu.edu/rtw/kbbrowser/tool:vacuum_cleaners>, <https://www.google.com/search?q=%22Vacuum+Cleaners%22>, <https://en.wikipedia.org/wiki/Vacuum_cleaner>

11.

12.

13. <http://rtw.ml.cmu.edu/rtw/kbbrowser/>, <http://rtw.ml.cmu.edu/rtw/kbbrowser/tool:vacuum_cleaners>, <https://www.google.com/search?q=%22Vacuum+Cleaners%22>, <https://en.wikipedia.org/wiki/Vacuum_cleaner>

14. <http://rtw.ml.cmu.edu/rtw/kbbrowser/>, <http://rtw.ml.cmu.edu/rtw/kbbrowser/tool:vacuum_cleaners>, <https://www.google.com/search?q=%22Vacuum+Cleaners%22>, <https://en.wikipedia.org/wiki/Vacuum_cleaner>

**Results cluster 4: Cooking**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Cluster 4: Cooking** | **DBpedia** | **ConceptNet** | **Nell** |
| 1 | Season your food (apply salt and pepper) | 1 click,  3 minutes | 1 click,  1 minute | 2 clicks,  4 minutes |
| 2 | Use the right amount of oil or some kind of fat | 1 click,  2 minutes | 3 clicks,  4 minutes | 2 clicks,  2 minutes |
| 3 | Wash all your food before cooking | 0 clicks,  1 minute | x | 2 clicks,  2 minutes |
| 4 | Have a clean and safe cooking environment | x | x | x |
| 5 | Watch out for expiration dates | x | x | x |
| 6 | Use the right amount of heat | 0 clicks,  1 minute | 1 click,  3 minute | 2 clicks,  5 minutes |
| 7 | Use a burner not larger than the pan size | x | x | x |
| 8 | Use wooden spoons for pans with special coating | x | x | x |
| 9 | Knowing to salt your water when you're cooking pasta or potatoes | x | x | x |
| 10 | What kind of knives are for what | 0 clicks,  1 minute | x | x |
| 11 | the oven first has to be heated | 0 clicks,  1 minute | 2 clicks,  2 minutes | 2 clicks,  4 minutes |
| 12 | The pan is hot when it is on the stove | x | x | 3 clicks,  2 minutes |
| 13 | You can't touch the pan, while it is on the stove cooking, because it is hot | 0 clicks,  1 minute | x | 3 clicks,  2 minutes |
| 14 | Cooking requires aggregating and transforming the state of some food | 0 clicks,  1 minute | 1 click,  1 minute | 2 clicks,  3 minutes |
| 15 | Ingredients have influence on the taste | 0 clicks,  1 minute | 2 clicks,  4 minutes | 2 clicks,  2 minutes |
| 16 | Cooking is the process of heating food to improve its edibility and taste | 0 clicks,  1 minute | 1 click,  3 minutes | 2 clicks,  2 minutes |
|  | Easy | 10 | 7 | 10 |
|  | Hard | 6 | 9 | 6 |
|  | Average clicks | 0.2 | 1.6 | 2 |

**Table IV. Results cluster 4: Cooking**

**Accessed links cluster 4:**

DBpedia:

1. <http://dbpedia.org/page/Cooking>, <https://en.wikipedia.org/wiki/Cooking>

2. <http://dbpedia.org/page/Cooking>, <https://en.wikipedia.org/wiki/Cooking>

3. <http://dbpedia.org/page/Cooking>

4. x

5. x

6. <http://dbpedia.org/page/Cooking>

7. x

8. x

9. x

10. <http://dbpedia.org/page/Cooking>

11. <http://dbpedia.org/page/Cooking>

12. x

13. <http://dbpedia.org/page/Cooking>

14. <http://dbpedia.org/page/Cooking>

15. <http://dbpedia.org/page/Cooking>

16. <http://dbpedia.org/page/Cooking>

ConceptNet:

1. <http://conceptnet.io/c/en/cooking>, <http://conceptnet.io/c/en/making_food_edible>

2. <http://conceptnet.io/c/en/cooking>, <http://conceptnet.io/c/en/cooking?rel=/r/UsedFor&limit=1000>, <http://conceptnet.io/c/en/olive_oil>, <http://conceptnet.io/c/en/olive_oil?rel=/r/IsA&limit=1000>

3. x

4. x

5. x

6. <http://conceptnet.io/c/en/cooking>, <http://conceptnet.io/c/en/heating>

7. x

8. x

9. x

10. x

11. <http://conceptnet.io/c/en/cooking>, <http://conceptnet.io/c/en/oven>, <http://conceptnet.io/c/en/very_hot>

12. x

13. x

14. <http://conceptnet.io/c/en/cooking>, <http://conceptnet.io/c/en/changing_consistency_of_food>

15. <http://conceptnet.io/c/en/cooking>, <http://conceptnet.io/c/en/ingredients> <http://conceptnet.io/c/en/mixed_before_cooking>,

16. <http://conceptnet.io/c/en/cooking>, <http://conceptnet.io/c/en/way_to_prepare_food>

NELL:

1. <http://rtw.ml.cmu.edu/rtw/kbbrowser/>, <http://rtw.ml.cmu.edu/rtw/kbbrowser/hobby:cooking>, <https://en.wikipedia.org/wiki/Cooking>

2. <http://rtw.ml.cmu.edu/rtw/kbbrowser/>, <http://rtw.ml.cmu.edu/rtw/kbbrowser/hobby:cooking>, <https://en.wikipedia.org/wiki/Cooking>

3. <http://rtw.ml.cmu.edu/rtw/kbbrowser/>, <http://rtw.ml.cmu.edu/rtw/kbbrowser/hobby:cooking>, <https://en.wikipedia.org/wiki/Cooking>

4. x

5. x

6. <http://rtw.ml.cmu.edu/rtw/kbbrowser/>, <http://rtw.ml.cmu.edu/rtw/kbbrowser/hobby:cooking>, <https://en.wikipedia.org/wiki/Cooking>

7. x

8. x

9. x

10. x

11. <http://rtw.ml.cmu.edu/rtw/kbbrowser/>, <http://rtw.ml.cmu.edu/rtw/kbbrowser/hobby:cooking>, <https://en.wikipedia.org/wiki/Cooking>

12. <http://rtw.ml.cmu.edu/rtw/kbbrowser/>, <http://rtw.ml.cmu.edu/rtw/kbbrowser/hobby:cooking>, <https://en.wikipedia.org/wiki/Cooking>, <https://en.wikipedia.org/wiki/Electric_stove>

13. <http://rtw.ml.cmu.edu/rtw/kbbrowser/>, <http://rtw.ml.cmu.edu/rtw/kbbrowser/hobby:cooking>, <https://en.wikipedia.org/wiki/Cooking>, <https://en.wikipedia.org/wiki/Electric_stove>

14. <http://rtw.ml.cmu.edu/rtw/kbbrowser/>, <http://rtw.ml.cmu.edu/rtw/kbbrowser/hobby:cooking>, <https://en.wikipedia.org/wiki/Cooking>

15. <http://rtw.ml.cmu.edu/rtw/kbbrowser/>, <http://rtw.ml.cmu.edu/rtw/kbbrowser/hobby:cooking>, <https://en.wikipedia.org/wiki/Cooking>

16. <http://rtw.ml.cmu.edu/rtw/kbbrowser/>, <http://rtw.ml.cmu.edu/rtw/kbbrowser/hobby:cooking>, <https://en.wikipedia.org/wiki/Cooking>

**Results cluster 5: Window cleaning**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Cluster 5: Window cleaning** | **DBpedia** | **ConceptNet** | **Nell** |
| 1 | Use some detergent/soap | 0 clicks,  1 minute | 1 click,  1 minute | 3 clicks,  6 minutes |
| 2 | Use water | 0 clicks,  1 minute | 1 click,  1 minute | 3 clicks,  5 minutes |
| 3 | You can use a cloth to clean the windows | 0 clicks,  1 minute | 1 click,  1 minute | 3 clicks,  6 minutes |
| 4 | Dry from top to bottom and don’t lift the handle until you reached the end | x | x | 3 clicks,  3 minutes |
| 5 | Don’t clean your windows while the air is dusty or when it’s raining | 1 click,  2 minutes | x | x |
| 6 | Dry the window off after cleaning it to prevent stains | 1 click,  3 minutes | x | x |
| 7 | Specific order: First use cleanser then wipe off with something dry | 1 click,  2 minutes | x | 3 clicks,  4 minutes |
| 8 | Afterwards, the windows must be clean so that I can see through them, without seeing any stains | 0 clicks,  1 minute | 1 click,  2 minutes | x |
| 9 | Water runs down to the bottom | x | x | x |
| 10 | Windows are, in most cases, fragile | 0 clicks,  1 minute | x | x |
|  | Easy | 8 | 4 | 5 |
|  | Hard | 2 | 4 | 3 |
|  | Average clicks | 0.4 | 1 | 3 |

**Table V. Results cluster 5: Window cleaning**

**Accessed links cluster 5:**

DBpedia:

1. <http://dbpedia.org/page/Window_cleaner>

2. <http://dbpedia.org/page/Window_cleaner>

3. <http://dbpedia.org/page/Window_cleaner>

4. x

5. <http://dbpedia.org/page/Window_cleaner>, <https://en.wikipedia.org/wiki/Window_cleaner?oldid=741439029>

6. <http://dbpedia.org/page/Window_cleaner>, <https://en.wikipedia.org/wiki/Window_cleaner?oldid=741439029>

7. <http://dbpedia.org/page/Window_cleaner>, <https://en.wikipedia.org/wiki/Window_cleaner?oldid=741439029>

8. <http://dbpedia.org/page/Window_cleaner>

9. x

10. <http://dbpedia.org/page/Window_cleaner>

ConceptNet:

1. <http://conceptnet.io/c/en/cleaning>, <http://conceptnet.io/c/en/soap>

2. <http://conceptnet.io/c/en/cleaning>, <http://conceptnet.io/c/en/water>

3. <http://conceptnet.io/c/en/cleaning>, <http://conceptnet.io/c/en/cloth>

4. x

5. x

6. x

7. x

8. <http://conceptnet.io/c/en/cleaning>, <http://conceptnet.io/c/en/things_no_longer_dirty>

9. x

10. x

NELL:

1. <http://rtw.ml.cmu.edu/rtw/kbbrowser/>, <http://rtw.ml.cmu.edu/rtw/kbbrowser/hallwayitem:cleaning_window>, <https://www.google.com/search?q=%22cleaning+window%22>, <https://shewearsmanyhats.com/the-best-window-cleaner/>

2. <http://rtw.ml.cmu.edu/rtw/kbbrowser/>, <http://rtw.ml.cmu.edu/rtw/kbbrowser/hallwayitem:cleaning_window>, <https://www.google.com/search?q=%22cleaning+window%22>, <https://shewearsmanyhats.com/the-best-window-cleaner/>

3. <http://rtw.ml.cmu.edu/rtw/kbbrowser/>, <http://rtw.ml.cmu.edu/rtw/kbbrowser/hallwayitem:cleaning_window>, <https://www.google.com/search?q=%22cleaning+window%22>, <https://shewearsmanyhats.com/the-best-window-cleaner/>

4. <http://rtw.ml.cmu.edu/rtw/kbbrowser/>, <http://rtw.ml.cmu.edu/rtw/kbbrowser/hallwayitem:cleaning_window>, <https://www.google.com/search?q=%22cleaning+window%22>, <https://shewearsmanyhats.com/the-best-window-cleaner/>

5. x

6. x

7. <http://rtw.ml.cmu.edu/rtw/kbbrowser/>, <http://rtw.ml.cmu.edu/rtw/kbbrowser/hallwayitem:cleaning_window>, <https://www.google.com/search?q=%22cleaning+window%22>, <https://shewearsmanyhats.com/the-best-window-cleaner/>

8. x

9. x

10. x

**Performance of the 3 data sets:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **DBpedia** | **Average cluster 1** | **Average cluster 2** | **Average cluster 3** | **Average cluster 4** | **Average cluster 5** |
| **Easy** | 33.3% | 50% | 64.2% | 62.5% | 80% |
| **Hard** | 66.6% | 50% | 35.8% | 37.5% | 20% |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **ConceptNet** | **Average cluster 1** | **Average cluster 2** | **Average cluster 3** | **Average cluster 4** | **Average cluster 5** |
| **Easy** | 46.7% | 16.7% | 35.7% | 43.75% | 50% |
| **Hard** | 53.3% | 83.3% | 64.3% | 56.25% | 50% |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **NELL** | **Average cluster 1** | **Average cluster 2** | **Average cluster 3** | **Average cluster 4** | **Average cluster 5** |
| **Easy** | 46.7% | 50% | 64.3% | 62.5% | 62.5% |
| **Hard** | 53.3% | 50% | 35.7% | 37.5% | 37.5% |

**Total average performance:**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **DBpedia** | **ConceptNet** | **Nell** |
| **Easy** | 58% | 38.57% | 57.2% |
| **Hard** | 42% | 61.43% | 42.8% |