#### 望月圭子大学院ゼミ発表資料

# Sketch Engineの使い方

2014/06/09 川村 駿(M1)

# Sketch Engineとは

- 言葉の働きを調査するためのツール
  - Lexical Computing社のAdam Kilgrriff氏によって、2003年に設立
- さまざまなコーパスを一か所に集めた、ハブ的役割を持つサイト



#### search in huge text corpora



**Previous Next Stop** 

•000000

# Sketch Engineとは

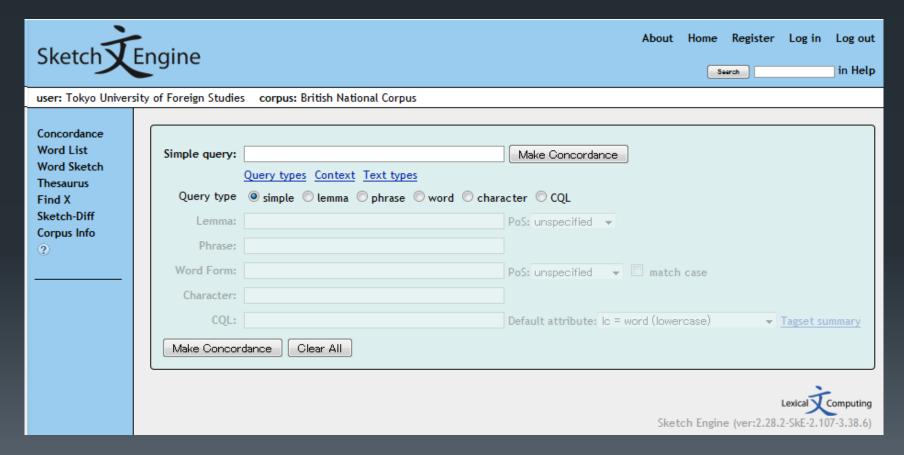
■ 世界中の言語のコーパスを収録している

Afrikaans/ Alabian/ Arabic/ Azerbaijani/ Bengali/ Bosnian/ Bulgarian/ Catalan/ Croatian/ Czech/ Danish/ Dutch/ English/ Estonian/ Filipino/ Finnish/ French/ German/ Greek/ Gujarati/ Hebrew/ Hindi/ Hungarian/ Chinese-simplified/ Chinese-traditional/ Igbo/ Indonesian/ Irish/Italian/ Japanese/ Kazakh/ Korean/ Kyrgyz/ Latin/ Latvian/ Lithuanain/ Macedonian/ Malay/ Malayalam/ Maltense/ Maori/ Nerwegian/ Persian/ Polish/ Portuguese/ Romanian/ Russian/ Serbian/ Setswana/ Slovak/ Slovenian/ Spanish/ Swahili/ Swedish/ Tamil/ Telugu/ Thai/ Turkish/ Turkmen/ Ukrainian/ Uzbek/ Vietnamese/ Welsh

▶ 全63言語

http://www.sketchengine.co.uk/

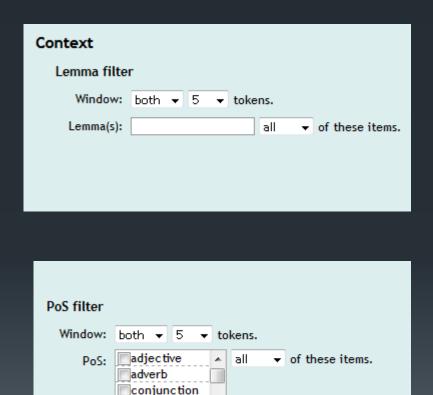
- Concordance
  - 指定した語を中心に、どのような文脈で使用されているのかを調べる



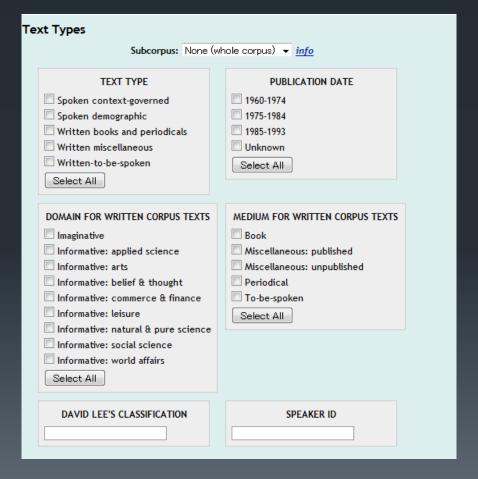
- Concordance
  - ■「knowledge」で検索した場合

```
Query knowledge 14,381 (128.2 per million)
             of 720 Go
Page 1
                           Next | Last
J2L
             the same time, depending on the taste or knowledge of the client or mosaicist). But this seems
J<sub>2</sub>L
         worked at North Leigh, for a client who had a knowledge of fashionable geometric designs, 
J2B
              between 'instruction', the acquisition of knowledge and 'education', which produces well rounded
J2B
            consisted only of two papers: I) a thorough knowledge of two Euripides plays, the Alcestis and
J2B
            her in the worst place on God's earth. Her knowledge of Italian brought release with ajob with
J2T
            local forest peoples benefit from their own knowledge, 
Anthropologist Darrell Posy criticizes
J2T
                scientists who" mine the rainforest for knowledge " without returning something of value.
J2F
           Doreen?' Apart from her admittedly efficient knowledge of the intricacies of computers I'd thought
J2H
           over atomic variables over which we have no knowledge or control. For our purposes, the averaging
               , Rae built up invaluable experience and knowledge of the Arctic environment and its peoples
J28
J26
              practical, continuing contribution to the knowledge of employment issues, in the light of social
J29
            homework as they must have a solid rock of knowledge about the collections or an exhibition
J2C
              The Coulson Chair was established in the knowledge that Theoretical Chemistry was making significant
J2A
              's and FHCIMA's who wish to update their knowledge and skills are eligible to enrol on any
J2A
    assignments, be required to make use of and apply knowledge and competences across a wide spectrum
J2A
            tested practical competences and assessed knowledge, understanding and application. Assignments
J2A
     experience, which extends the student's previous knowledge and skills and which can be used to measure
J2A
           each assignment ie. <corr> students' </corr> knowledge and competences. d) The allocation and
J2A
               adequate background practical skill and knowledge in key aspects of hospitality operations
J2W authorities of the various London boroughs had no knowledge of 27 of the sites. Shortly before its
```

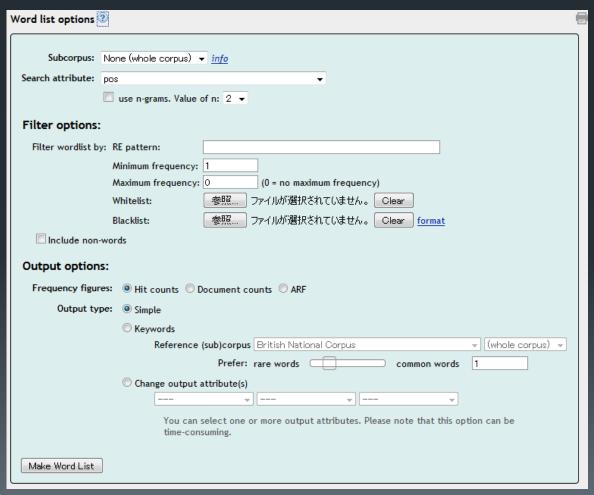
共起される語や品詞の指定



determiner noun ▶ テキストの種類の指定



- Word List
  - ■コーパス内に使用されている単語のリストを作ることができる



- Word List
  - British National Corpus (BNC)に多く使われている単語

thev

336,525

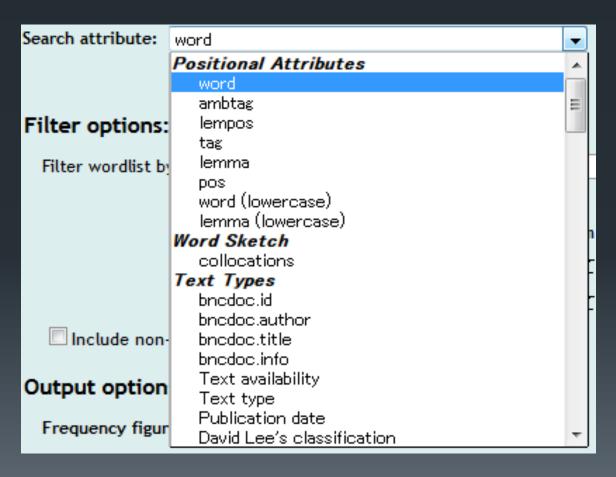
corpus: British National Corpus						
Page	Go <u>Next &gt;</u>					
word	Freq					
the	5,415,473					
of	3,027,293					
to	2,566,874					
and	2,510,049					
a	2,040,346					
in	1,788,884					
that	1,062,370					
is	972,923					
was	877,918					
1	862,214					
for	<u>831,741</u>					
it	<u>821,805</u>					
on	<u>694,931</u>					
be	<u>648,529</u>					
with	640,381					
The	<u>619,060</u>					
as	603,494					
you	574,714					
at	487,203					
by	486,695					
he	462,137					
are	<u>455,051</u>					
have	<u>453,293</u>					
not	432,451					
had	<u>418,575</u>					
from	410,171					
his	381,674					
which	361,184					
or	358,453					
this	343,534					

Corpus: British National Corpus

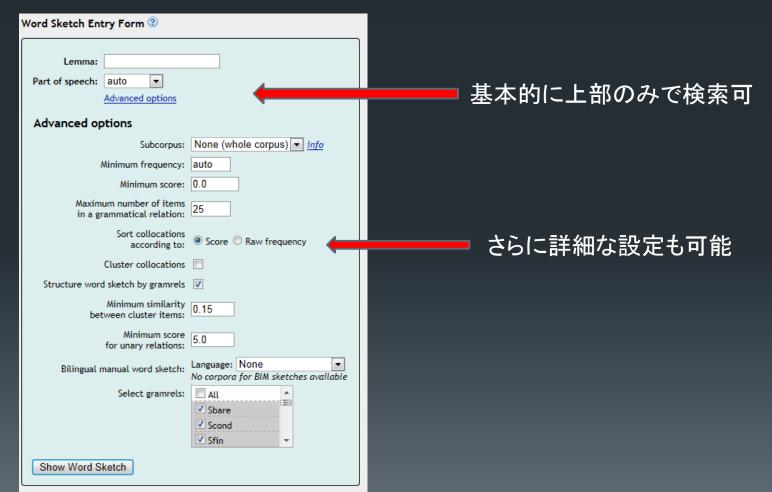
tney	336,323
but	321,463
an	319,130
n't	316,344
were	312,027
her	288,929
we	265,155
one	261,418
been	259,938
has	254,355
she	251,063
all	249,118
their	245,769
will	245,301
do	242,909
would	240,940
there	234,784
lt	232,004
can	224,462
up	204,844
more	201,697
said	194,767
out	194,625
who	190,875
so	189,339
about	188,454
if	181,213
He	178,015
what	174,851
when	170,095
them	167,096
no	159,245
into	157,157

C 0	7-10
could	156,542
its	153,970
In	153,620
him	153,168
time	149,602
some	147,341
other	146,413
than	144,563
like	140,611
two	140,178
only	139,953
then	131,682
me	129,348
A	128,904
my	127,621
over	126,478
did	126,320
your	125,156
But	124,887
also	118,800
know	118,237
any	116,158
very	115,142
just	114,599
people	113,684
now	113,342
may	111,429
first	110,884
This	110,039

- Word List
  - リスト化する単語の種類を選ぶこともできる



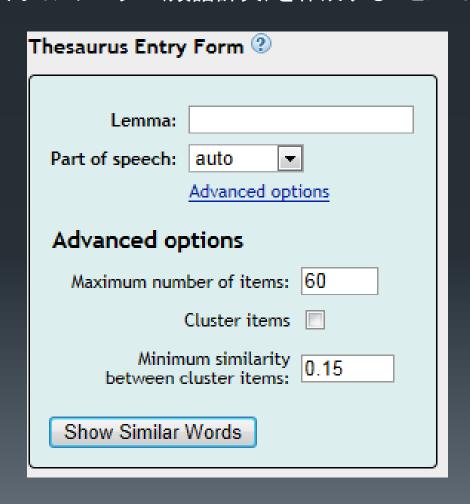
- Word Sketch
  - ある語がコーパス内で、どのような語と共起しているかを検索できる



- Word Sketch
  - ■「knowledge」と共起される語を調べる

modifier	5,129	1.1	pp_of-p	3,376	3.9	and/or	2,981	1.4	object_of	2,829	1.7	pp_obj_of-p	2,594	3.0
scientific	161	8.78	language	97	6.38	skill	475	9.12	acquire	<u>161</u>	8.55	sociology	115	9.62
prior	<u>76</u>	8.6	greek	<u>11</u>	6.08	expertise	<u>70</u>	8.16	gain	105	7.61	lack	137	7.95
intimate	<u>62</u>	8.33	workings	9	5.93	understanding	131	7.96	possess	<u>45</u>	7.41	advancement	<u>17</u>	7.3
detailed	99	8.11	God	43	5.92	experience	242	7.53	impart	<u>15</u>	7.19	corpus	<u>15</u>	6.9
technical	84	7.74	grammar	<u>13</u>	5.87	wisdom	<u>18</u>	6.72	deny	<u>62</u>	7.11	acquisition	<u>29</u>	6.83
thorough	39	7.67	english	<u>25</u>	5.81	competence	<u>15</u>	6.35	lack	32	6.86	pursuit	<u>19</u>	6.81
personal	146	7.65	anatomy	7	5.76	belief	<u>40</u>	6.28	glean	11	6.78	breadth	<u>12</u>	6.76
linguistic	<u>42</u>	7.42	bsl	<u>6</u>	5.73	consent	<u>21</u>	6.27	accumulate	<u>13</u>	6.56	depth	<u>21</u>	6.57
specialist	<u>70</u>	7.41	subject	<u>61</u>	5.71	appreciation	11	6.05	pool	9	6.5	best	<u>59</u>	6.27
schematic	<u>27</u>	7.37	chemistry	<u>10</u>	5.61	recklessness	<u>6</u>	5.94	update	14	6.48	fount	<u>6</u>	6.19
shared	33	7.33	topic	<u>14</u>	5.47	enthusiasm	<u>13</u>	5.69	disseminate	9	6.46	diffusion	7	6.18
background	74	7.24	nature	<u>42</u>	5.35	faith	<u>16</u>	5.51	test	32	6.4	frontier	<u>10</u>	6.06
sound	<u>30</u>	7.23	existence	<u>17</u>	5.29	ability	33	5.48	share	<u>49</u>	6.4	basis	<u>53</u>	5.84
common	103	7.06	biology	<u>6</u>	5.27	enjoyment	<u>6</u>	5.37	detail	<u>11</u>	6.38	body	105	5.79
previous	<u>68</u>	7.04	past	<u>15</u>	5.19	attitude	28	5.29	require	145	6.37	archaeology	<u>6</u>	5.74
inside	23	7.03	literature	<u>13</u>	5.11	intelligence	9	5.1	embody	<u>12</u>	6.28	kind	<u>66</u>	5.61
specialised	24	7.01	circumstance	<u>20</u>	5.1	suspicion	<u>6</u>	4.93	transmit	<u>12</u>	6.22	transmission	8	5.6
working	<u>46</u>	6.97	history	38	5.04	technique	22	4.93	advance	<u>16</u>	6.18	source	43	5.45
first-hand	<u>20</u>	6.94	probability	<u>6</u>	5.03	awareness	9	4.88	extend	<u>40</u>	6.11	conception	9	5.37
superior	<u>27</u>	6.94	cause	<u>18</u>	4.89	love	<u>19</u>	4.83	broaden	8	6.03	theory	<u>41</u>	5.36
practical	<u>50</u>	6.92	world	<u>75</u>	4.85	information	<u>54</u>	4.73	presuppose	7	6.01	validity	<u>6</u>	5.34
human	84	6.78	truth	<u>11</u>	4.83	qualification	<u>7</u>	4.6	utilise	8	5.97	mode	<u>12</u>	5.28
specialist	<u>19</u>	6.75	german	7	4.75	perspective	<u>7</u>	4.59	demonstrate	<u>23</u>	5.79	absence	14	5.25
in-depth	18	6.74	Christ	7	4.7	concept	<u>13</u>	4.54	attain	8	5.77	application	<u>36</u>	5.2
existing	<u>51</u>	6.74	technique	<u>19</u>	4.69	confidence	<u>10</u>	4.52	derive	<u>21</u>	5.76	store	<u>14</u>	5.11

- Thesaurus
  - コーパス内でシソーラス(類語辞典)を作成することができる



- Thesaurus
  - 検索結果がリストだけでなく、視覚的にもわかりやすく表示される

#### knowledge (noun) British National Corpus freq = 14381 (128.2 per million)

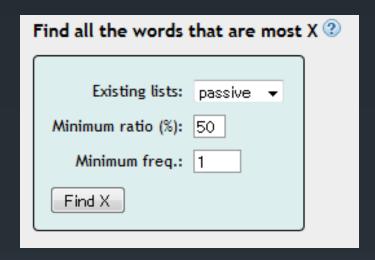
Lemma	Score	Freq
understanding	0.397	7615
experience	0.361	21983
skill	0.342	12512
information	0.306	38341
<u>idea</u>	0.3	31963
concept	0.298	8995
sense	0.288	20793
structure	0.287	17957
aspect	0.285	11491
<u>value</u>	0.283	24807
<u>ability</u>	0.281	10389
theory	0.281	16367
<u>analysis</u>	0.28	14113
evidence	0.272	21204
practice	0.271	21443
<u>view</u>	0.267	28358
study	0.265	32375
resource	0.263	12658
nature	0.262	17931
meaning	0.262	7943

```
conceptorinciple relationship activity analysis language kind seability eature factinteres perience development changed range material phaniour resource incompanions enseighbor account training choice form technique description assessment relationship activity analysis language kind seability feature factinteres perience education range material phaniour resource incompanion activity analysis language kind seability feature factinteres perience education range material phaniour resource incompanion activity analysis language kind seability feature factinteres perience activity analysis language processor activity activity
```

- Thesaurus
  - 類義語をクリックするとSketch-Diff(後述)の画面にリンクする



- Find X
  - ■コーパス内に特定の語形がどれほど使われているかを検索する



- ▶検索できる語形
  - Passive
  - Singular
  - -ing
  - spoken

- Find X
  - ■「-ing」で検索

Find X

#### Corpus: preloaded/bnc2 Selected list: -ing (ing\_noing) Percentil Ratio lempos Freq 100.0 Let-v 84 100.0 180 peacekeep-v 52 100.0 Die-v 100.0 90 hall-v 100.0 93 gettin'-v 100.0 goin'-v 323 100.0 Cut-v 144 100.0 399 Sit-v 100.0 12438 gon-v 100.0 57 again'-v 100.0 comin'-v 100.0 multiprocess-v 73 100.0 395 Put-v 100.0 58 0.3 backpack-v 100.0 GET-v 100.0 50 unsurprise-v 100.0 whingee-v 57 100.0 sclerose-v 86 100.0 doin'-v 141 58 0.5 100.0 bein'-v 85 100.0 wuther-v 100.0 talkin'-v 85 100.0 267 Run-v 100.0 lookin'-v 73 283 100.0 Set-v 100.0 97 0.6 Underlie-v 801 0.6 99.8 Get-v

■「Let」を表示



0.48

6

out

- Sketch-Diff(erence)
  - コーパス内の2語、あるいは2つのサブコーパスにおける ある語の使用方法の違い(主にコロケーションの違い)を検索できる

Word Sketch Dif	ferences Entry Form ②	
Lemma:	knowledge	
Part of speech:	noun 🔻	
Sketch diff by:	lemma	
	Second lemma	: understanding
	subcorpus	
	First subcorpus	: None (whole corpus) ▼ info
	Second subcorpus	: None (whole corpus) 🔻 <u>info</u>
	word form	
	First word form	:
	Second word form	:
	Advanced options	
Show Diff		

- Sketch-Diff
  - 「intelligent」と「clever」のコロケーションの違いを検索



#### 赤い表示

=「clever」とより共起される

緑の表示

=「intelligent」と より共起される

### 個人使用時の料金

#### 2014 prices

Individual academic licence via PayPal (inclusive of VAT):

monthly	GBP 5.20					
3-monthly	GBP 14.60					
yearly	GBP 52.00					

All other prices in GBP, per year, exclusive of UK VAT.



1GBP ≒172JPY (2014/06/08現在)

VAT(付加価値税) =20%

#### Academic and commercial licences

	Single	5	10	20	50	100	200
	user	users	users	users	users	users	users
Academic	52	208	364	624	1,040	1,404	1,664
Freelance translator	78						
Commercial – low intensity	130	520	910	1,560	2,600	3,562	4,160
Commercial – mid intensity	312	1,248	2,184	3,744	6,240	8,736	9,984
Commercial – high intensity/lexicography	832	3,328	5,824	9,984	16,640	22,464	26,624

high-intencity: 年100回以上の使用 mid-intensity: 年30回以上の使用 Academicは辞書編纂目的以外であれば、教育や調査のために使ってもよいというアカウント