With the rise of the Socio-Semitic Web, Communities of Web users have started to create new resources of human knowledge, like Wikipedia. A crucial property of such resources is the collaborative construction process that enables fundamentally new insights in many areas of research unthinkable of before and has the potential to radically influence previously existing research paradigms.

Research Questions

- Word Sense is a fundamental notion in human language analysis that has been a subject of intensive studies for centuries. Traditionally, word senses are defined by expert linguists or lexicographers. Emerging Web resources allow to define word senses collaboratively that are yet poorly investigated and have the potential to shed light on the definition of word senses itself, which is still an open research question.

**Motivation**

With the rise of the Socio-Semitic Web, Communities of Web users have started to create new resources of human knowledge, like Wikipedia. A crucial property of such resources is the collaborative construction process that enables fundamentally new insights in many areas of research unthinkable of before and has the potential to radically influence previously existing research paradigms.

**Research Questions**

- Word Sense is a fundamental notion in human language analysis that has been a subject of intensive studies for centuries. Traditionally, word senses are defined by expert linguists or lexicographers. Emerging Web resources allow to define word senses collaboratively that are yet poorly investigated and have the potential to shed light on the definition of word senses itself, which is still an open research question.

**Word Sense Comparison**

<table>
<thead>
<tr>
<th>Wiktionary</th>
<th>WordNet</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1 (countable) A request for some product or service</td>
<td>#1 (often plural) a command given by a superior (e.g., a military or law enforcement officer) that must be obeyed; the British ships dropped anchor and waited for orders from London</td>
</tr>
<tr>
<td>#2 a degree in a continuum of size or quantity; it was on the order of a mile</td>
<td>#2 a degree in a continuum of size or quantity; it was on the order of a mile</td>
</tr>
<tr>
<td>#3 established customary state (especially of society); order ruled in the streets; size and order</td>
<td>#3 established customary state (especially of society); order ruled in the streets; size and order</td>
</tr>
<tr>
<td>#4 logical or comprehensible arrangement of separate elements; you shall consider these options in the order of their prioritization</td>
<td>#4 logical or comprehensible arrangement of separate elements; you shall consider these options in the order of their prioritization</td>
</tr>
<tr>
<td>#5 a condition of regular or proper arrangement; he put his desk in order; she makes it nice in working order</td>
<td>#5 a condition of regular or proper arrangement; he put his desk in order; she makes it nice in working order</td>
</tr>
<tr>
<td>#6 a legally binding decision or action entered on the court record or issued by a court (as a judgment); a found in New Mexico and that the order issued to evade it there</td>
<td>#6 a legally binding decision or action entered on the court record or issued by a court (as a judgment)</td>
</tr>
<tr>
<td>#7 “a group of persons living under a religious rule”</td>
<td>#7 “a group of persons living under a religious rule”</td>
</tr>
<tr>
<td>#8 “I gave the waiter my order”</td>
<td>#8 “I gave the waiter my order”</td>
</tr>
<tr>
<td>#9 “a friend in New Mexico said that the order caused no trouble out there”</td>
<td>#9 “a friend in New Mexico said that the order caused no trouble out there”</td>
</tr>
<tr>
<td>#10 “he put his desk in order”</td>
<td>#10 “he put his desk in order”</td>
</tr>
<tr>
<td>#11 “the machine is now in working order”</td>
<td>#11 “the machine is now in working order”</td>
</tr>
<tr>
<td>#12 “order ruled in the streets”</td>
<td>#12 “order ruled in the streets”</td>
</tr>
<tr>
<td>#13 “law and order”</td>
<td>#13 “law and order”</td>
</tr>
<tr>
<td>#14 “men from the fraternal order will staff the soup kitchen today”</td>
<td>#14 “men from the fraternal order will staff the soup kitchen today”</td>
</tr>
<tr>
<td>#15 “we shall consider these inventories have a great potential”</td>
<td>#15 “we shall consider these inventories have a great potential”</td>
</tr>
</tbody>
</table>

**WordSenses in Wiktionary**

- Wiktionary word senses are manually aligned with WordNet sense sets.
- Wiktionary word senses are not represented in other resources.
-Wiktionary word senses have a polysemic difference of less than 3.

**Word Sense Comparison**

- Wiktionary encodes word senses for seldomly used terms.
- Better coverage for slang-related and domain-specific word senses.
- WordNet shows a better coverage of senses from natural sciences, sports, and military.
- Good agreement of senses for words with a medium language frequency.
- Many Wiktionary word senses for commonly used words are missing from WordNet.

We argue that collaborative word sense inventories have a great potential and aim to combine expert and collabora-

**Resource Coverage**

- Overlap of the resources at term level is surprisingly low.
- The missing terms induce also many missing word senses.

**Resource Coverage**

- Overlap of the resources at term level is surprisingly low.
- The missing terms induce also many missing word senses.

**Word Sense Distribution**

- Word sense distribution is mostly similar.
- On average, more word senses for verbs in WordNet.

**Sense Comparison**

- Wiktionary shows a better coverage of senses from natural sciences, sports, and military.
- Many Wiktionary word senses for commonly used words are missing from WordNet.

We argue that collaborative word sense inventories have a great potential and aim to combine expert and collabora-

**Conclusions**

- Wiktionary encodes word senses for seldomly used terms.
- Better coverage for slang-related and domain-specific word senses.
- WordNet shows a better coverage of senses from natural sciences, sports, and military.
- Good agreement of senses for words with a medium language frequency.
- Many Wiktionary word senses for commonly used words are missing from WordNet.

We argue that collaborative word sense inventories have a great potential and aim to combine expert and collabora-

**Conclusions**

- Wiktionary encodes word senses for seldomly used terms.
- Better coverage for slang-related and domain-specific word senses.
- WordNet shows a better coverage of senses from natural sciences, sports, and military.
- Good agreement of senses for words with a medium language frequency.
- Many Wiktionary word senses for commonly used words are missing from WordNet.

We argue that collaborative word sense inventories have a great potential and aim to combine expert and collabora-

**Conclusions**

- Wiktionary encodes word senses for seldomly used terms.
- Better coverage for slang-related and domain-specific word senses.
- WordNet shows a better coverage of senses from natural sciences, sports, and military.
- Good agreement of senses for words with a medium language frequency.
- Many Wiktionary word senses for commonly used words are missing from WordNet.

We argue that collaborative word sense inventories have a great potential and aim to combine expert and collabora-

**Conclusions**

- Wiktionary encodes word senses for seldomly used terms.
- Better coverage for slang-related and domain-specific word senses.
- WordNet shows a better coverage of senses from natural sciences, sports, and military.
- Good agreement of senses for words with a medium language frequency.
- Many Wiktionary word senses for commonly used words are missing from WordNet.

We argue that collaborative word sense inventories have a great potential and aim to combine expert and collabora-

**Conclusions**

- Wiktionary encodes word senses for seldomly used terms.
- Better coverage for slang-related and domain-specific word senses.
- WordNet shows a better coverage of senses from natural sciences, sports, and military.
- Good agreement of senses for words with a medium language frequency.
- Many Wiktionary word senses for commonly used words are missing from WordNet.

We argue that collaborative word sense inventories have a great potential and aim to combine expert and collabora-

**Conclusions**

- Wiktionary encodes word senses for seldomly used terms.
- Better coverage for slang-related and domain-specific word senses.
- WordNet shows a better coverage of senses from natural sciences, sports, and military.
- Good agreement of senses for words with a medium language frequency.
- Many Wiktionary word senses for commonly used words are missing from WordNet.

We argue that collaborative word sense inventories have a great potential and aim to combine expert and collabora-