

Using Vocabularies to Collaboratively Create Better Plans For Writing Tasks

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Motivation



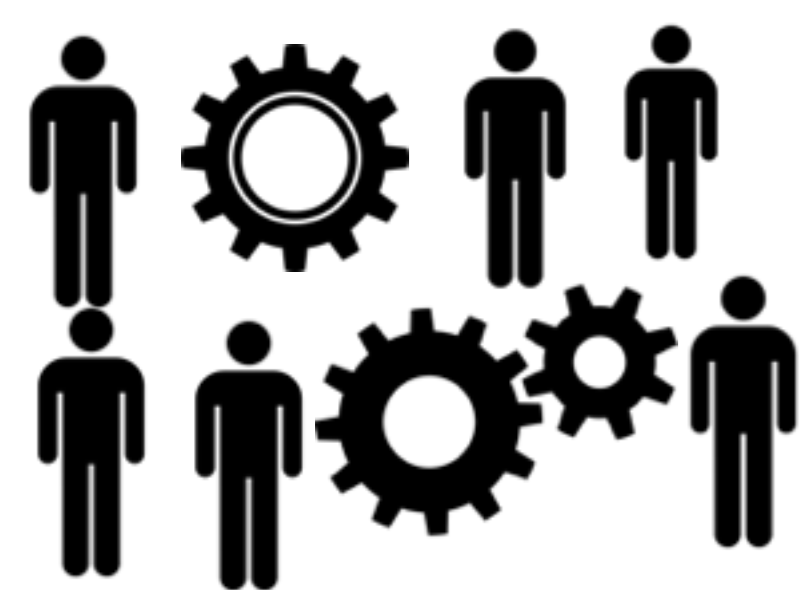
Having an action plan for how to do a task has benefits:

- Higher Efficiency
- Better Interruptibility
- Higher Quality Output

Problem:

People do not want to make plans for their tasks. How do we outsource plan creation?

Potential Solutions:



Crowd workers can only make plans for **independent tasks**



Asking collaborators can have **social costs** and affect **plan quality**

We mitigate the costs of planning for people who can help plan for others' tasks (e.g., crowd workers or collaborators)

Methods

To aid in plan creation, we use a data-driven **vocabulary** of functions related to writing tasks

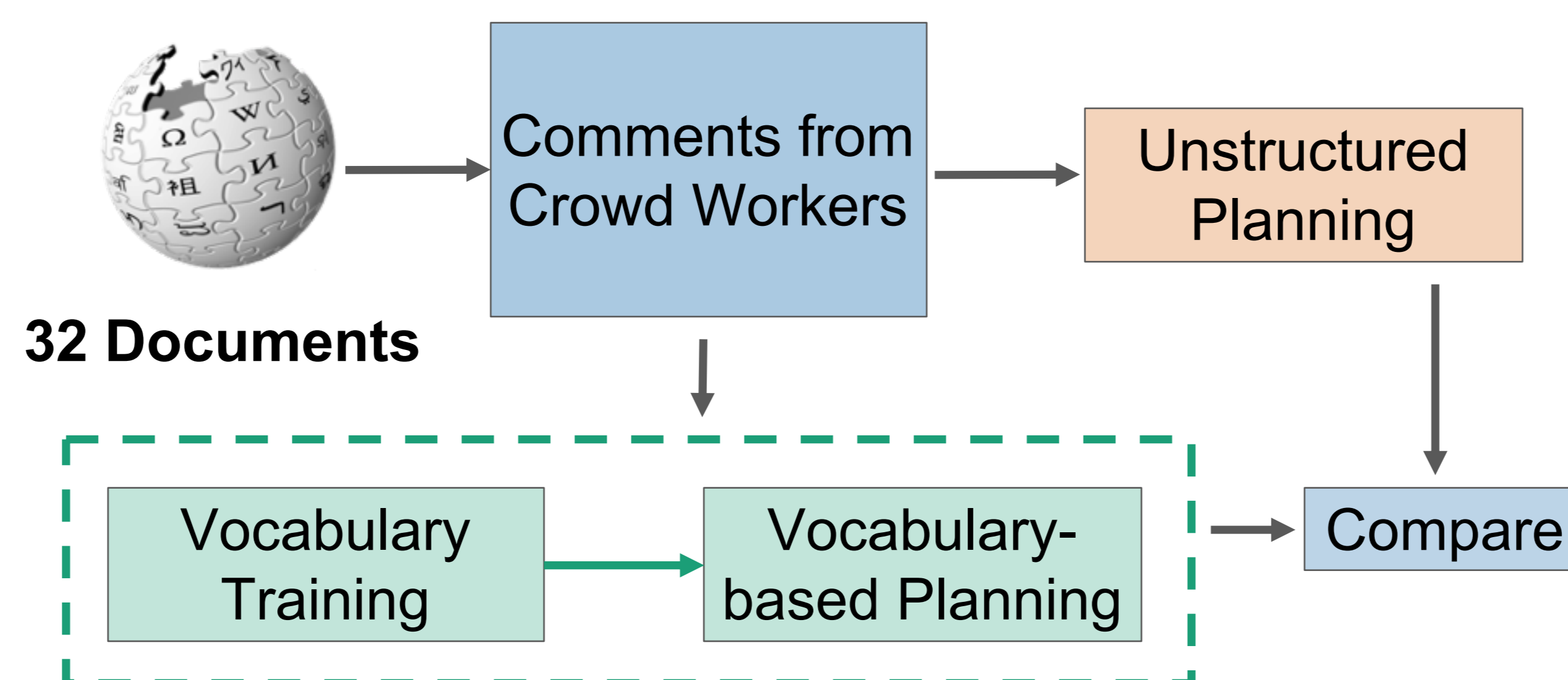
Phase 1: Vocabulary Creation

20 Documents:  + 

264 Plans with Inter-Rater Reliability:  +  +  Cohen's Kappa: 0.72

| Function | Online |
|---|--------|
| Add a sentence about [this] | 6.6% |
| Add details about [this] | 13.5% |
| List a few things about [this] | 2.7% |
| Add a table, figure or data | 0.5% |
| Update a table, figure or data | 0.0% |
| Move [this] | 3.6% |
| Delete [this] | 5.1% |
| Fix Spelling | 2.1% |
| Update Formatting | 3% |
| Replace [this] word for [that] | 1.8% |
| Check [this] | 3.5% |
| Mark sentences [that don't read well] | 5.0% |
| Rewrite sentence | 14.4% |
| Read everything to ensure it makes sense | 32.3% |
| Make a decision about [this] | 1.7% |
| Find reference(s) about or from source/author | 2.0% |
| Add reference(s) to bibliography | 1.0% |
| Cite reference(s) here | 1.0% |

Phase 2: Plan Creation



Results

Generated Plans for **768 comments** using our **18-function** vocabulary

Comment

"This topic should be divided into two sections, re-entry and unilateral revocation and each elaborated on further"

Unstructured Plan

1. Separate into two paragraphs
2. Add more details on 're-entry and unilateral revocation'

Vocabulary-Based Plan

1. List a few things about the procedures for former EU countries to re-enter the Union
2. Add a sentence about the information from step 1
3. Move the new paragraph under a new section heading called "Re-entry"
4. Add sentence summarizing the paragraph about reentry
5. Add a sentence summarizing the paragraph about unilateral revocation
6. Read everything to ensure it makes sense

Significantly less time and effort required to make plans with a **vocabulary!**

