



T H E  
**HUMANITARIAN  
FOSS PROJECT**

Building Free Open Source Software for Society

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# Summer Institute 2009 @ Trinity College inSTEDD Project Weekly Status Update

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# Outline

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Project Overview

Progress so far

Demo

Plans for next week

# Evolve

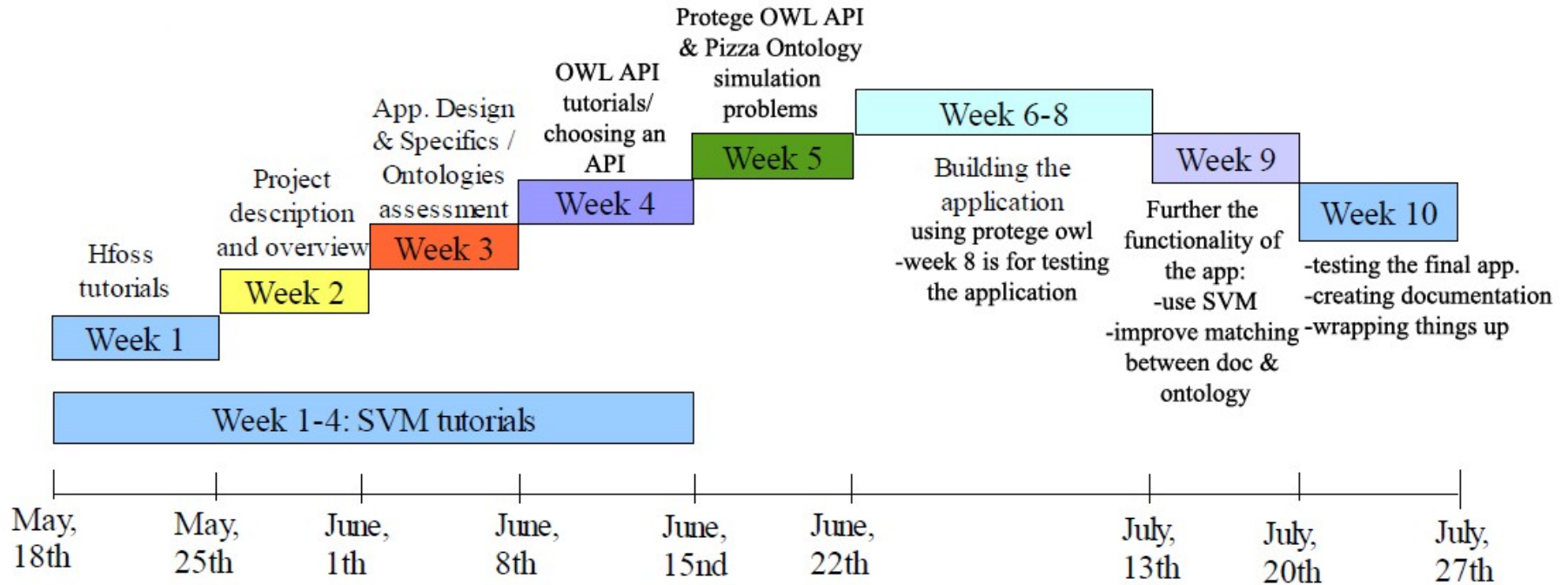
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Predict and prevent the spread of diseases

Evolve itself is an initiative from inSTEDD

Our project focuses on the idea of predicting the outbreak of diseases by looking at documents

# Timeline



# Progress so far

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1. Parse a document, extract words and associate frequencies
2. Collect, from the BioCaster Ontology, all syndromes, symptoms and diseases
3. Match all words from a document to the list of word in the ontology

# Example 1

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Having a document, extract words and associate frequencies

Input: a text file (.txt)

Output: a text file containing all the words in the document(s) and their frequencies

disease	1.83%
medical	3.66%
condition	1.83%
abnormal	1.83%
organism	1.83%
impairs	1.83%
bodily	1.83%
functions	1.83%
symptoms	5.49%
signs	3.66%

# Example 2

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Symptoms, Syndromes and Diseases collected from the ontology BioCaster

Escherichia coli infection  
Lyme disease  
Severe acute respiratory syndrome  
Equine influenza  
Canine influenza  
Scrub typhus  
West Nile fever  
Multidrug-Resistant Salmonella serotype t  
Gastrointestinal anthrax  
Viral hemorrhagic fever  
Sylvan yellow fever  
Urban yellow fever  
Hantavirus infection  
Hepatitis B  
Mosquito-borne viral encephalitis  
Dengue shock syndrome  
Tularemia  
Meningococcal meningitis  
West Nile virus encephalitis  
Japanese encephalitis  
Yellow fever  
Marburg virus disease  
Cyclosporiasis  
La Crosse encephalitis  
Cholera

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FINALLY A DEMO!

# Plans for next week

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Try to import more than one document

Build the application to work with more than one  
Ontology

Improving the algorithm that matches the input  
document with the ontology (porter stemmer)

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# The Humanitarian FOSS Project

[www.hfoss.org](http://www.hfoss.org)



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