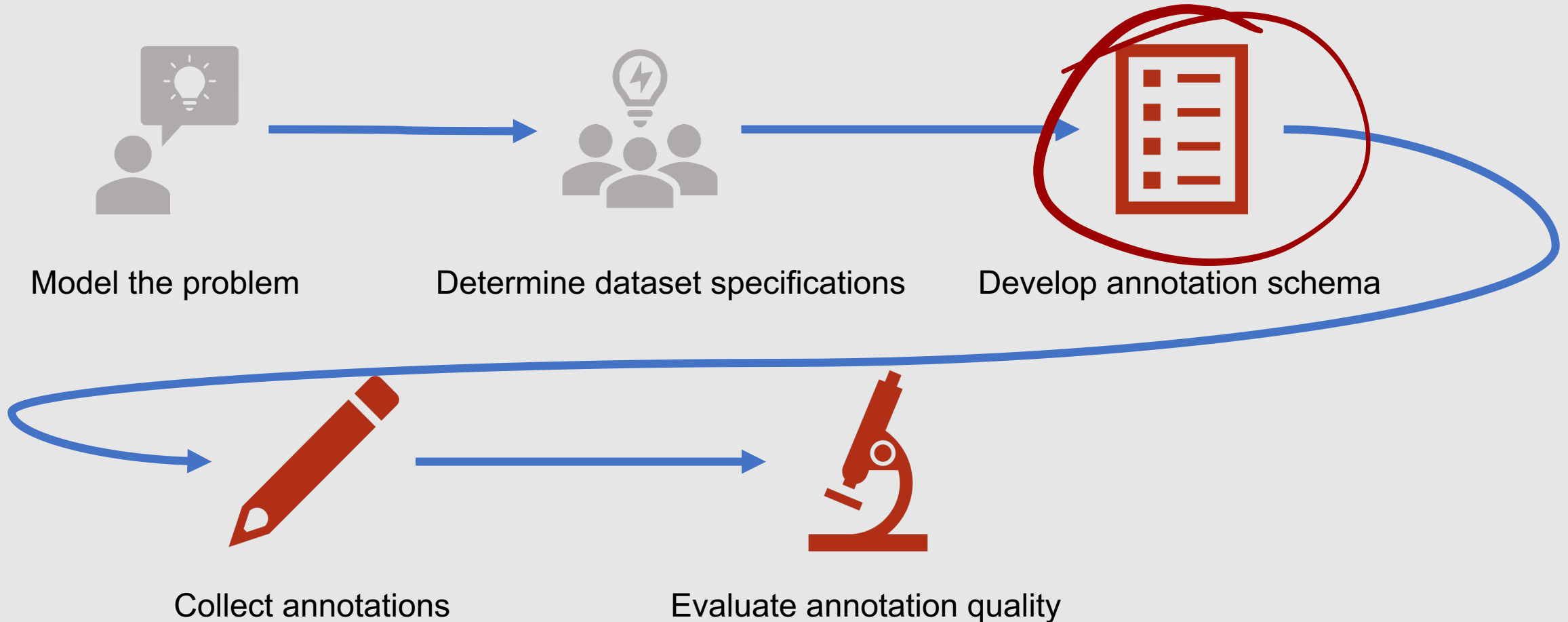


Developing Annotation Schemata

Natalie Parde

UIC CS 521

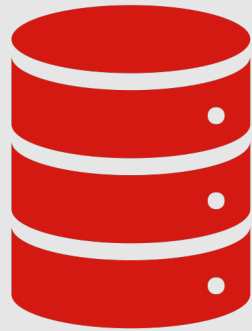
Typical Data Collection Pipeline



You know
what you
want your
annotators
to do ...but
how will
they do it?

- What will the annotations **look like**?
- How are **different types of tasks** represented differently?
- How can you **maximize your corpus's usefulness** to the broader research community?
- What **constraints** are placed on your annotation environment and data format?
 - Consider both annotators and downstream machine learning task

Keep your data accessible!



Intricate database systems are difficult to set up (both for you, and for other people)



Complex XML schemas can be difficult for other researchers to understand

Defining Annotation Categories

Determine

Determine a reasonable number of annotation categories

- Remember ...lots of categories → more potential for errors and disagreement

Define

Concisely define each category

Include

If possible, include an example

Case Example: Emotion Classification

Natalie wants to collect emotion labels for a classification task. She has a dataset of 1000 tweets, and wants to label each tweet with the most dominant emotion that it expresses.



I'm so happy I get to take CS 521!!!! #bestclassever

oh no I registered late and got stuck in CS 521 😭

Wow I had no idea that UIC had a statistical NLP class 😲

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Happiness

Sadness

Surprise

Fear

Anger

Disgust

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Happiness	Sadness	Surprise	Fear	Anger	Disgust
Indicates happiness or joy.	Indicates sadness or disappointment.	Indicates surprise or shock.	Indicates fear, stress, or panic.	Indicates anger or resentment.	Indicates disgust or unpleasantness.

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Yay I finished my homework three days before the deadline! #sohappy	I forgot to do a final project and failed my class 😞	Wait there was an exam?!?!	Someone in this room just lost their tarantula so current status is terrified #omg	I am so mad that I have to retake this class for a fifth time	Ew gross the person next to me is eating raw eggs 🤢

Include Clear Instructions

Be as concise as possible

Remember that your annotators will most likely be much less familiar with the task than you ...you may need to state things that seem obvious!

Case Example: Emotion Classification



Select the most dominant emotion expressed by the tweet below. Base your decision only on the information provided in the tweet text.

<tweet>

Happiness	Sadness	Surprise	Fear	Anger	Disgust
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**Remember,
developing a
good annotation
schema is often
an iterative
process!**

- **Start by giving your annotators a small sample of your data** and checking:
 - Inter-annotator agreement
 - Agreement with what you'd like to see
- **Ask annotators for preliminary feedback**
 - Was there a category that seemed to be obviously missing?
 - Were there categories that seemed to overlap?
 - Was the annotation format reasonable?

Case Example: Emotion Classification



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<tweet>

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Case Example: Emotion Classification



Sometimes there didn't really seem to be any emotion expressed by the tweet, so I just chose "happiness."

I wasn't sure what the difference was between "surprise" and "fear."

Select the most dominant emotion expressed by the tweet below. Base your decision only on the information provided in the tweet text.

<tweet>

Happiness	Sadness	Surprise	Fear	Anger	Disgust
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Case Example: Emotion Classification



Select the most dominant emotion expressed by the tweet below. Base your decision only on the information provided in the tweet text.

<tweet>

Happiness	Sadness	Surprise	Fear	Anger	Disgust	Neutral
Indicates happiness or joy.	Indicates sadness or disappointment.	Indicates surprise or shock.	Indicates fear, terror, or dread.	Indicates anger or resentment.	Indicates disgust or unpleasantness.	Used no obvious emotion.
Yay I finished my homework three days before the deadline! #sohappy	I forgot to do a final project and failed my class 😞	Wait there was an exam?!?!	Someone in this room just lost their tarantula so current status is terrified #omg	I am so mad that I have to retake this class for a fifth time	Ew gross the person next to me is eating raw eggs 🥚	Slides from yesterday's class are available now.

**For more tips
on creating
good
annotation
schema, check
out guidelines
for other
popular
corpora in
your area.**

- If there are well-defined standards in your annotation area, use those to the extent possible
- If you deviate from a well-defined standard, make sure to justify your reasons for doing so (others interested in using the corpus will probably ask)

