**Motivation**

Systems like Wikipedia or online museum collections are data driven. The data itself (a concept/artwork) does not bring success. Value comes from additional knowledge about the data. For example: the name of the depicted bird.

Application owners have limited time and/or expertise and cannot provide required knowledge. Other sources of knowledge creation are needed. To enrich data collections we tap into the interest and expertise of Crowds to create knowledge. This is Crowd Generated Knowledge.

Our research concern the scientific understanding of the process to produce Crowd Generated Knowledge to enrich data collections.

**Research Overview**

Our main research question is

**How can we maximize the creation of Crowd Generated Knowledge?**

Producing Crowd Generated Knowledge involves three steps:

- Specify required knowledge and creation constraints
- Identify and assemble crowds for expertise finding
- Plan and execute crowd activities for knowledge creation

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**Goal specification**

Goal specification requires two steps.

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**Goal elicitation**

- Knowledge: Stories about Delft painters
- Process: Within 2 months
- Crowd: Written in Dutch
- Quality: High readability

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Use case.

- OpenImages platform contains audiovisual data
- Stakeholder wants improved recommendations
- Required knowledge and constraints (i.e. goals) yet unknown
- Challenges: Elicit and formulate goals

Research

- Identify and formulate goal elicitation process
- Create human- and machine-readable goal formulation language

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**Activity planning**

Activity planning requires three steps.

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**Task creation**

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**Task routing**

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**Task execution**

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Use case.

- Rijksmuseum has many prints with unnamed depicted elements
- Specific knowledge about elements is needed
- Goals: coverage of prints and correctness of knowledge
- Challenge: getting specific and detailed knowledge from crowd

Research

- Study the creation of (workflows of) tasks
- Study distribution of tasks to right persons in the working crowd
- Study execution of tasks

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**Project results**

- Reusable open source software framework for crowd knowledge generation
- Creation and evaluation of several candidate identification strategies on social networks and human computation platforms.
- Creation and evaluation of several task creation, routing and execution strategies
- Application to several real world scenarios

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