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**Reference: QSE:CIS Arch**

**Topic: Collective Intelligence Architecture Study: Development of a Prototype in 3 Variants**

LVA-Type: Bachelor's Thesis, (MSc) Project in SE and Internet Comp.

Start: As soon as possible

End: By arrangement

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**Background**

Collective Intelligence Systems (CIS) like Twitter, Wikipedia or Stackoverflow have a strongly influence on nowadays knowledge creation and dissemination processes. In order to better understand structural differences of CIS architecture style variants, the goal of this topic is to develop a set of three small prototypes, whereby each prototype has some minor modifications in its architecture design. In this work the student is also introduced to the design and development of social web applications and gets basic understanding about the underlying architectural principles of CIS on a conceptual and technological level.

**Tasks**

- Goal is the development of a small prototype from which subsequently 2 variants should be created using minor modifications.
- Basic parts include:
  - o Design and documentation of prototype architecture.
  - o Implementation of the prototypes using Ruby on Rails and additional frameworks.

**Experience and skills needed**

- Ruby on Rails
- Basic experiences in data modelling and databases (e.g. MySQL, PostgreSQL).
- Experience / interest in Social Web, Crowdsourcing, Collective Intelligence and Social Networks.
- Good written and spoken English skills.
- Experience with Git.