Checklist for choice of thesis topic

Partly based on a quote from A. N. Kolmogorov (see http://www.scholarpedia.org/article/Andrey_Nikolaevich_Kolmogorov)

Topic
When judging a topic two main perspectives can be used: an academic or purely scientific viewpoint, or a viewpoint based on applications in society / industry. So when answering the questions below, ensure that you can motivate them from either (or both) of these perspectives.

	Scientifically	**Industrially**
1. Why is topic important?		
2. Why urgent now?		
3. Why can be solved/approached now?		

Match to student
4. Will the work on the topic stimulate the development of the student? Why?

5. Is it within the students powers to carry it out? Why?
      5.1 Relevant courses the student has taken?
      5.2 Relevant experience the student has?
      5.3 Relevant interests the student has?
      5.4 Other reasons the student will be able to carry out the work?

6. Will the work demand the maximum effort of which the student is capable? Why?

Types of answers / arguments
For some of the questions above there are common types of answers.

3. Why can be solved/approached now?

3a, NewResultAvailable - recent results have advanced the state of the art so that we can now identify and (potentially) attack/approach/solve the problem

3b, NewMethodAvailable - a new method is available that we can/might use to attack/approach/solve the problem

3c, NewProblem - even though topic has been approachable/solvable before no one has recognized the (importance of) problem and thus it has not been solved