Information

Digital systems refer to digital hardware and software working together to transform data into digital solutions. The hardware interacts with the software to help perform a task. This task could be using a word processing program (software) on a laptop (hardware) to create a written document.

Once the hardware and software are connected, the digital system forms a network. The purpose of a digital solution is to complete a task. When a digital solution is created, an evaluation of the effectiveness of that solution will occur. Evaluations will include a criterion based on:
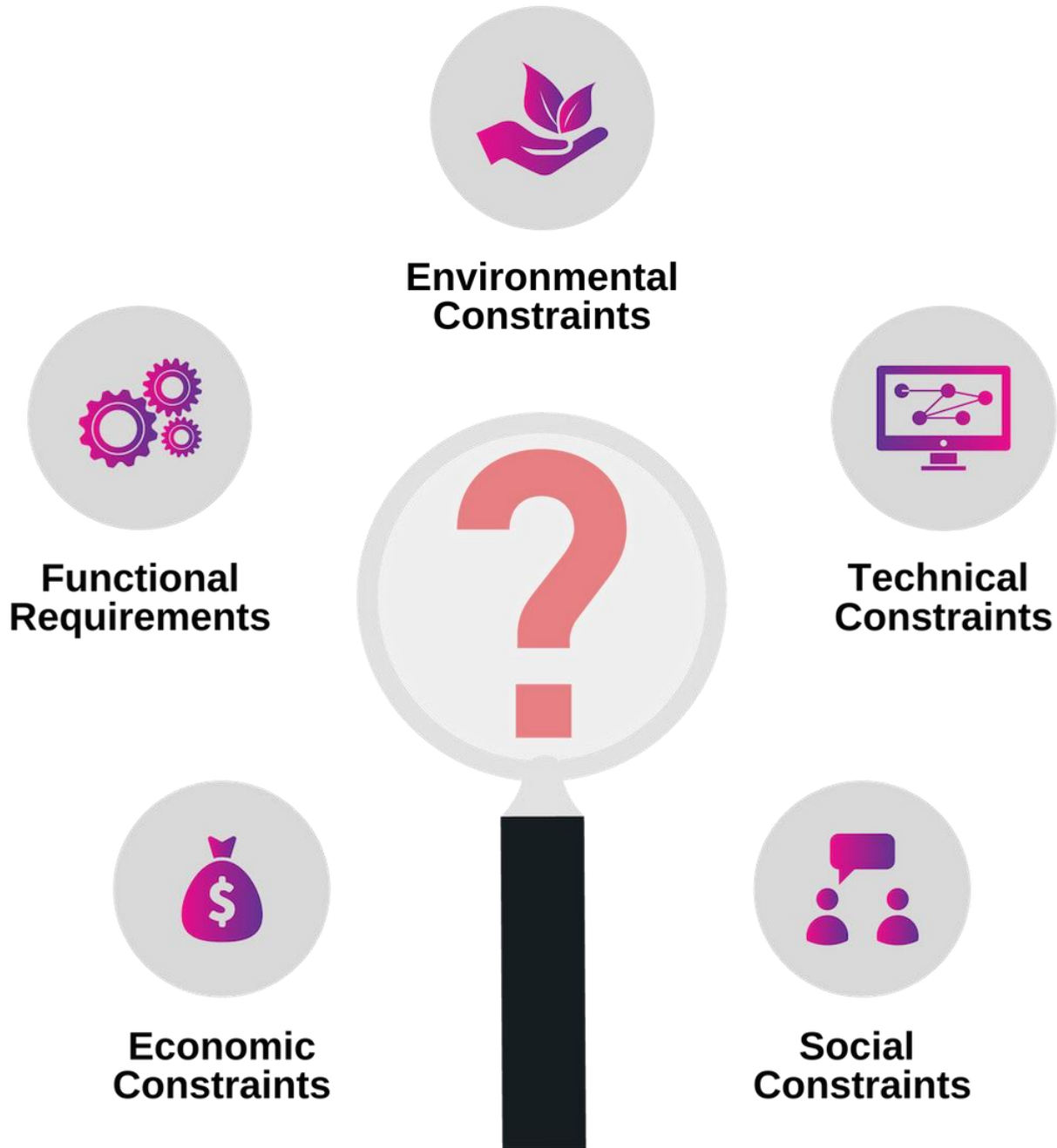
- Functional requirements: What functions of the digital solution need to be consider based on the purpose of the solution and how the solutions will change depending on the users. User Experience is an influential factor when determine functional requirements.
- Economic constraints: Investigating the impact the economy will have on the digital solution.
- Environmental constraints: Investigating the environmental impact of the digital solution.
- Social constraints: Appropriate use of colours, images and text for the target user.
- Technical constraints: Issues with the hardware and software (loading times).
- Usability constraints: The ease of using the system and ensuring the tasks are accommodating to the target user.

Curriculum Expectation

Students will define and decompose real-world problems based functional requirements and economic, environmental, social, technical and usability constraints.

REAL WORLD PROBLEMS

Define and analyse real world problems

Environmental Constraints

Functional Requirements

Technical Constraints

Economic Constraints

Social Constraints

Evaluate a digital solution based on the criteria and take into account multiple view points.