Project Part 1: Concept Motivation

Introduction to Agricultural Informatics

Goal: Identify a problem for which Ag Informatics offers an appropriate solution.

Required: Write a 1-page, single-spaced Concept Paper describing your problem. You must use **3** peer-reviewed journal articles as references in your description. As you describe your issue, make sure you answer these questions:

- Why is this a problem?
- Why is this an information problem?
- Why is technology an appropriate solution to this problem?

This assignment focuses on "mapping" the problem space. It is critical to understand the problem correctly to create an appropriate solution, so this is where we are starting.

Check the rubric to see what you should provide in your paper!

What this assignment is not: In this assignment, you should not describe how to solve the problem or the work that would need to be done to solve the problem. In part 2 of the project, you will explore solutions and what it will take to create a solution. In part 2, you will "map" the solution space. In part 3 (end of semester), you will describe a specific solution that you would like to propose for this problem. You can envision the final deliverable as a prompt for hack-a-thon or as a product idea around which to build a business plan.

Note: The page limit is not a hard limit. It is a suggestion to show how much description you will need to get full credit if you write clearly. It is perfectly possible that someone could completely fulfill the requirements in as little as ¾ of a page, while other writers or topics may require closer to 1.5 pages. You should not go under or over those limits as those are indications that you are either including unnecessary information or not justifying your reasons.

Comments on Originality: Your paper cannot just be a rewrite of an article you found online. You cannot just rehash a discussion point that people have been writing about in the exact same way for years. **Example**: There are a million discussions on "smart" irrigation systems and why using IoT sensors in the field is the way to attack the problem and deliver many economic, social, and environmental benefits. Picking this as your problem will result in a low originality grade as it has already been done. That said, many problems in agriculture are centuries old. You do not need to come up with an entirely new problem, but the approach to the problem should be yours and not immediately identifiable as already widely discussed.

Grading Rubric (35 total points):

Criteria	Exemplary	Good	Weak	Unacceptable
Addresses: Why is this a problem?	5 points The impacts of this problem on society and/or the people associated	4 points The impact of the problem is described, and some rationale for	2 points The impact and importance of the issue is only briefly mentioned.	0 points Paper assumes the issue is a problem without any discussion.

	5 points	4 points	2 points	0 points
	with this problem are clearly defined. Changing the situation would provide a better outcome for the target beneficiaries.	this conclusion is provided.		
Addresses: Why is this an information problem?	5 points Information is a critical factor in this problem. Several reasons are given and justified.	4 points Information probably plays an important role in this problem. Reasons for the importance of information are given, but convincing justifications are not provided.	2 points Reasons are given for why information plays a role in this problem, but information does not appear to be a major factor. Reasons are weak or justification is not provided.	0 points No reason is given for why this problem is associated with issues in information.
Addresses: Why is technology an appropriate solution to this problem?	5 points Technologies should be considered in solutions to this problem. A rationale is stated, and facts and justification provided for why a technology solution is appropriate.	4 points A rationale for the use of technology is provided, but the reasoning and justifications could leave readers with some lingering doubts.	points Some rationale for the appropriateness of technology is given, but statements are given without justification or reasons are weak.	0 points No justification given for why technology should be used on this problem.
Format	5 points No grammatical errors, paper is of appropriate length: > 3/4 page, < 1.5 pages	4 points Only a few minor grammatical errors, paper is of appropriate length: > 3/4 page, < 1.5 pages	2 points Many grammatical errors or the paper is too long (> 1.5 pages) or too short (< 3/4 page)	0 points Grammatical errors impede the understanding of the points of the paper
Style	5 points Language is clear and concise. Problem is well-described and understandable to the reader	4 points The paper describes the problem in a way that is understandable to the reader but may be wordy.	2 points Some arguments in the paper are either superficial, redundant, or contradictory. Most of the points are understandable.	0 points The reader will not understand the problem. Language and descriptions are not clear and make reading this paper challenging.

References	5 points 3 peer-reviewed journal articles are referenced. References are well integrated in the discussion	4 points 2 peer-reviewed journal articles are referenced. Articles are mostly integrated into the discussion	2 points 1 peer-reviewed journal article is referenced	0 points 0 peer-reviewed journal articles are referenced
Originality	5 points The problem is completely novel and/or the discussion is completely different than prior arguments about the problem (but still correct)	4 points The problem is either only briefly discussed in media or the discussion of the problem is novel and insightful beyond that discussion.	2 points The problem has been discussed in the press, but this paper adds a slightly original component.	0 points The problem has shown up in many news articles and discussed in the exact same manner.