

CMPT 405
Seminar Review

Speaker: Wilson Johnston

Topic: GIFS FieldAlytics

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Review

- A. Motivation: (Introduction to their company)
 - a. FieldAlytics provides both software and hardware for agriculture.
 - b. FieldAlytics is located on near Rosetown, Saskatchewan.
 - c. They are store and layer the geospatial data which is from electroconductivity maps and topography to advise users to manage their fields.
 - d. They also provide some flexible zone-creation tools so develop a customized plan for farmer's fields.
 - e. They provide current climate conditions and use historical climate data for advice farmers.
- B. Methods:
 - a. Specialization of the Field
 - i. FieldAlytics uses GPS to specialize in user's fields. By compare user's field zones and the data they have, they can let users know where the useful areas can be used.
 - b. Soil Sample
 - i. They implemented a soil sample application system which could make the user know what kind of soil they actually using now.
 - ii. They are using calculatable layers which are from Soil of Canadian for analysing the soil's composition on their database.
 - iii. By using the system with GPS in the area in different field point, users can get the sample and make topography.
 - iv. Wilson showed the data and soil layer example of Manitoba.
 - c. Climate
 - i. They gather historical climate data and use it to predict the future climate.
 - ii. They do not have the measure weather station, which is their climate limitation.
 - d. Data
 - i. FieldAlytics is having a lot of data now. (Soil sample)
 - 1. 4262827 acres which are 20264 fields.
 - ii. Process Flow

1. They firstly integrate different data, then they use all of the collected data to do the calculations, finally, they give the result to users.

e. Challenges

- i. Because the application has too many contents, it is not very user-friendly.
- ii. They have not used all of the functional data yet, so they will focus on integrating more data for their calculations.
- iii. The data accuracy and safe.

C. What did you learn about research methods/Software development strategies from this talk, if anything?

a. Data usage

- i. There is an amount of data produced by different users every day, so how to use the data is a good question. If developers can use them in a good way when developing software, the software will help user lot.

b. Software Design

- i. Good software design should focus on users. If the user could use the application easily, the software will success.

D. Conclusions:

- a. Their application has been on the right thing but needs more time to progress.
- b. They are having some issues now, but they will solve them in the future.

E. Summary of talk:

- a. This seminar mainly introduced their application which includes Specialization of the field, soil sample application, and climate prediction. I learned is why the data is valuable. The data can help user and earn money.

F. Questions/Comments:

- a. A professor pointed that their soil data may not be accurate enough because the soil could be changed by climate, attitude, the fertilizer usage and something more, so their data might be only on macro, which will be a big problem for their users.