Michael Moore
Team 8 Presentation Review

**Problem Motivation:** Did the speaker motivate this problem? Why is the problem interesting? What applications can this problem be applied to? List at least two applications this problem can be applied to other than what was presented. Briefly justify your answer. (50 word limit)

The speakers seemed very interested in learning about inaccuracies in web mapping applications. They were interested in breaking through the complaints that users had about the new Apple Maps application to see what the truth was. Their work could be used to evaluate other mapping services to determine which would be best for a specific business or research project.

**Problem Statement:** What problem did the presenter attempt to solve? If applicable, what were the input, output, objective, and constraints for this problem? Briefly justify your answer. (50 word limit)

Team 8 wanted to compare online mapping service accuracy. The input for this project was a list of points chosen by the group. The output was a ranking of the accuracy of each mapping service's lookup result. The constraints included the time and effort it took to manually look up each point.

**Hardness:** What is the main challenge in this work? Classify these challenges into computational, spatial, other, etc. Briefly justify your answer. (50 word limit)

One challenge faced is that of defining criteria for judging maps. Judging accuracy can be a subjective process.

**Proposed Solution:** How did the presenter solve the problem that was described? What were the key ideas behind the proposed solution? What was innovative about their solution? List at least three suggestions on how their proposed solution may be improved. Briefly justify your answer. (50 word limit)

Their project wasn't as much about solving a problem as it was learning the state of web mapping. Their key idea was to classify results of point lookups into categories of Accurate, Slightly-off and Way off. Their solution could be improved by using ground-truth values and ranking each found point by actual distance away from the ground-truth values. Instead of using points for their ground-truth, they could use polygons since addresses generally indicate a building or plot of land.

**Related Work:** Did the speaker provide a sufficient survey of related work? What were the main limitations in the related work? Do you feel that either the problem or proposed approach is novel? Briefly justify your answer. (50 word limit)

They didn't mention any related work, but did state that they were unable to find anyone discussing the actual quality of the Apple Maps.

**Validation:** What were the validation methodologies used in this work? Was the proposed approach compared with any state-of-the-art or naive approaches? Were there any surprises in the validation results relative to your expectations? Briefly justify your answer. (50 word limit)
Not applicable? No validation methodologies were discussed in the presentation or paper.

**Presentation Critique:**

Do you think the speaker did a good job motivating and defining the problem clearly for someone like you who may be a "non-expert" on the topic? Why or why not? (50 word limit)

The presentation and subject was interesting, even for a non-expert. I think a non-expert might not be interested in reproducing or extending the results, but they might be willing to change which maps they use.

Did the speaker emphasize the central message (e.g. did they follow: "Tell the audience what you're going to say, say it; then tell them what you've said.") (50 word limit)

They did a good job establishing that Apple's maps are on par with other mapping services.

Did the speaker relate to the audience? What did the speaker do to establish a rapport with the audience before delivering the key message? (50 word limit)

Both speakers smiled a lot and spoke clearly. They were also responsive to user questions.

What did the speaker do to engage the audience? e.g. Did the speaker ask short questions to either motivate the upcoming topic or assess the background/thinking of the audience? (50 word limit)

The speakers asked some short questions to gauge listener interest and to see if there was consensus with what they were saying. They also made good eye contact and smiled.

Did you understand most of the talk (or 75%, 50%, 25%, 5%, 0%)? Did the speaker inspire you to want to learn more about what he/she is doing? If you had to rate the presentation check-, check or check+, what score would you give? Briefly justify your answer. (50 word limit)

I understood all of the talk and found it interesting. I would rate the presentation check+. They presented their project well and made a case for the importance of such research.
Please use the following questions to critique each group:

Problem Motivation: Did the speaker motivate this problem? Why is the problem interesting? What applications can this problem be applied to? List at least two applications this problem can be applied to other than what was presented. Briefly justify your answer. (50 word limit)

Yes. From the fact that the newly released Apple map is evaluated as low quality due to the erroneous representation of locations, we realize the important role played by the accuracy of map applications in the user experience. The project provides a accuracy comparison strategy among different types of existed map platforms and such method can contribute to problems like:
1. Help the map app developer to do estimation test by comparison with other productions, the goal is to find out the cause of the inaccuracy and improve the implementation of the software by means of changing the row data sources, modifying data structure for representation, design more rational routing algorithms and so on.
2. The performance assess reports generated of will also provide guidance to user for making better choices on map applications based on different circumstance or varied function requirements.

Problem Statement: What problem did the presenter attempt to solve? If applicable, what were the input, output, objective, and constraints for this problem? Briefly justify your answer. (50 word limit)

The key objective of the project is to assess the accuracy of some mapping applications and using the comparison results to judge their capabilities and give useful hints showing why the inaccuracy emerges. In their experiment, the input is the data collected by GoogleMap, AppleMap, OpenStreetMap and BingMap, then the mapping results is compared visually, the output is the comparison among the accuracy rate of the locations produced by each application.

Hardness: What is the main challenge in this work? Classify these challenges into computational, spatial, other, etc. Briefly justify your answer. (50 word limit)

In the computational perspective, an efficient and effective comparison mechanism should be designed. It should not only correctly figure out the accuracy of each mapping application but also easy to compute. Since the comparison is statistically based, the efficiency problems must be taken into consideration when the test time increases rapidly.
In the spatial perspective, the locations used as testing cases(or samples) must be carefully chosen in order to make the result convincing. Basically, those samples should cover properties of different areas which involved with geographic and social factors.

Proposed Solution: How did the presenter solve the problem that was described? What were the key ideas behind the proposed solution? What was innovative about their solution? List at least three
suggestions on how their proposed solution may be improved. Briefly justify your answer. (50 word limit)

The present uses 50 locations in the Twin Cities area to do the experiments, so the no serious computational efficiency problems emerge. As to the comparison mechanism, they conceive of a scalable approach which consists of concepts like 'Accurate', 'Slightly-off' and 'Way-off' to define the accuracy computation. Some typical locations are chosen, for instance parking-area.

Our suggestions are:
(1) design more robust comparison algorithms and storage structures to handle the multi-granular computation. Specifically, when more and more locations are involved in the assessment, the types of comparison strategies will also multiply.
(2) select the sample locations in broader areas based on their significance. For example the public places(parks, stations, schools) other than remote areas(mountains, farmland, desert) are more interesting for common users.
(3) categorize the assessment results by different utilities and clusters of users, obviously, traffic controlling and driving navigation do not have the same requirement on accuracy.

Related Work: Did the speaker provide a sufficient survey of related work? What were the main limitations in the related work? Do you feel that either the problem or proposed approach is novel? Briefly justify your answer. (50 word limit)

To make assessment on certain map applications using mapping accuracy comparison is a novel idea, therefore the existed researches on this topic is relative rare. But we can still foresee the great potential of a wholesome assess strategy. The analysis reports will be useful for both software engineers and users.

Validation: What were the validation methodologies used in this work? Was the proposed approach compared with any state-of-the-art or naive approaches? Were there any surprises in the validation results relative to your expectations? Briefly justify your answer. (50 word limit)

The current validation methodologies are mainly empirically based, that is, they need to combine the experiment result with the evaluations from users of the 4 platforms to accomplish the validation. The feasibility of the proposed scalable approach has been proved by the fact that the GoogleMap produced the highest mapping accuracy as well as got best feedback from practical use.

Presentation Critique:
Do you think the speaker did a good job motivating and defining the problem clearly for someone like you who may be a "non-expert" on the topic? Why or why not? (50 word limit)

The idea of the project is quite straightforward since
1. Comparison assessment has been widely used in analysis of problems in many fields.
2. The inaccuracy of location mapping is always a big issue we concern about.
So the mechanism combines these two is easy to understand.

Did the speaker emphasize the central message (e.g. did they follow: "Tell the audience what you're going to say, say it; then tell them what you've said.") (50 word limit)

Yes. The whole speech is focus on their assessment design, from motivation, necessity, to experiment
execution, result analysis and finally future work, the audience can get a complete cognition of the project.

Did the speaker relate to the audience? What did the speaker do to establish a rapport with the audience before delivering the key message? (50 word limit)

Yes. They referred to some examples on the bad influences generated by the inaccuracy of the location mapping, which helped us to recall the similar scenarios encountered in our own life and get a more profound understanding.

What did the speaker do to engage the audience? e.g. Did the speaker ask short questions to either motivate the upcoming topic or assess the background/thinking of the audience? (50 word limit)

The sample locations they chose are near the twin cities, so the their explanation on the comparison result can be accepted by the audience quickly. They also briefly introduced the background information of the most popular map platforms, which correlates with the comparison result.

Did you understand most of the talk (or 75%, 50%, 25%, 5%, 0%)? Did the speaker inspire you to want to learn more about what he/she is doing? If you had to rate the presentation check-, check or check+, what score would you give? Briefly justify your answer. (50 word limit)

I can understand more than 90% of talk. The project is really good due to its usage described before and is worth carrying further studies on it. I will rate the presentation check+ for their brilliant ideas and concise but impressive narration.