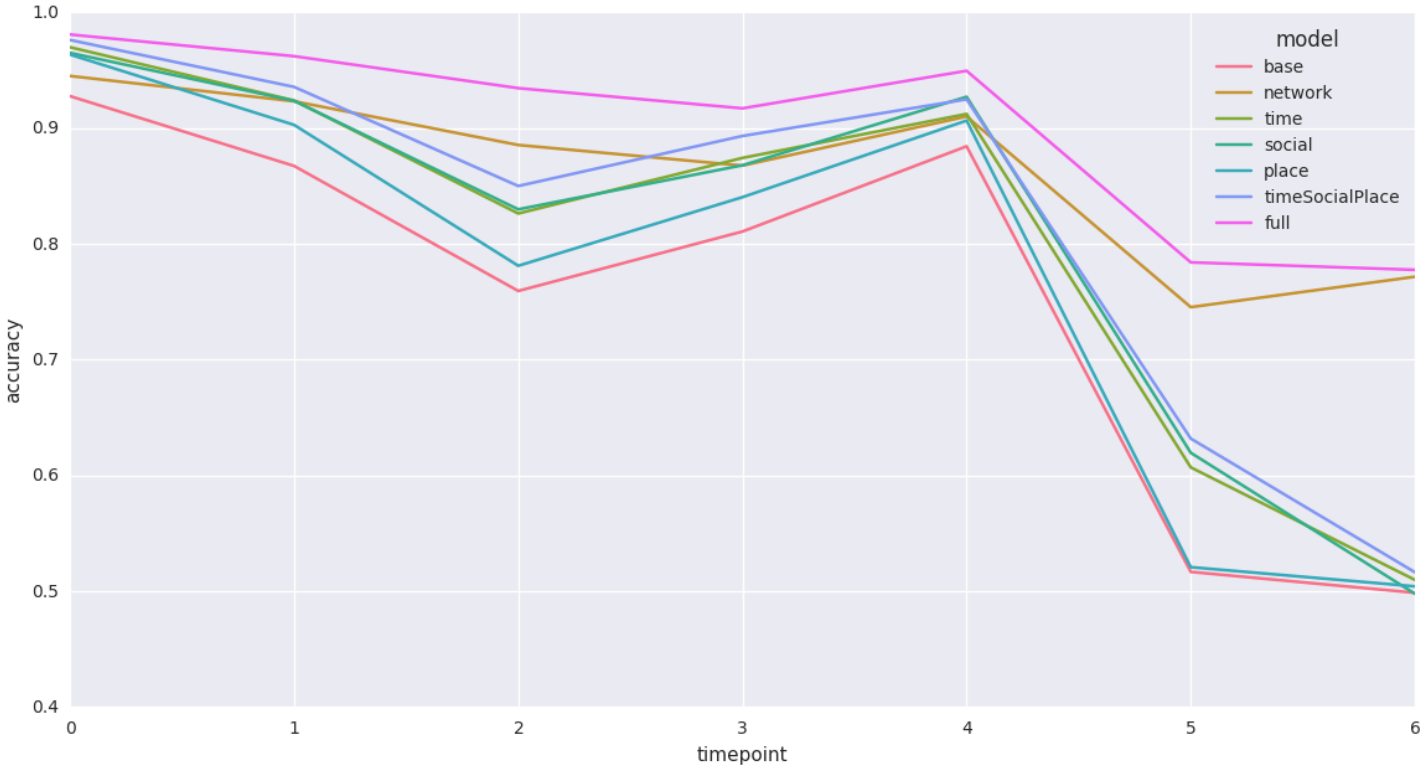
1 Model scores



Each line of a model represents the mean score for each timepoint out of a sample of 131 predictions. The scores are the Mean Average Precision for each model for each timestep.

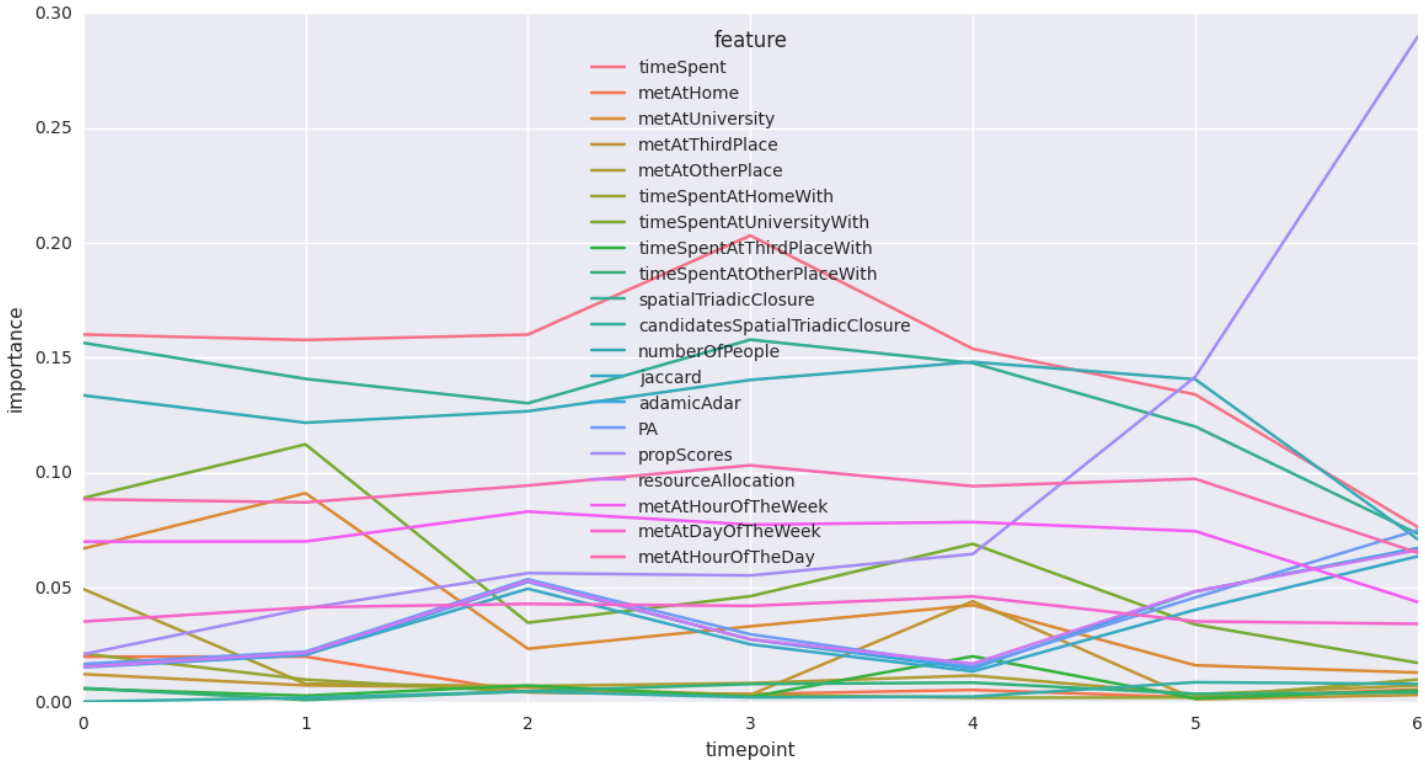
The main points:

1. Adding information about where you have met always significantly improves the model. The plot includes 95% confidence intervals, even though you can't see them. In short context matters significantly for network formation (although we kind of knew that already).

2. The place model does not perform very well compared to the other models. While still a still a significant improvement over the base model (how much time you have spent with the other person) it performs considerably worse than either the social or the time based model.

3. The context model ("timeSocialPlace") has a comparable performance to the network measure based model. Except for the last two timepoints. TODO Plot the accuracy of the models versus the amount of observations. Hunch this is correlated and more strongly so for the context models

2 Feature Importance of the "Full Model"



Feature importance: The relative rank (i.e. depth) of a feature used as a decision node in a tree can be used to assess the relative importance of that feature with respect to the predictability of the target variable. Features used at the top of the tree are used contribute to the final prediction decision of a larger fraction of the input samples. The expected fraction of the samples they contribute to can thus be used as an estimate of the relative importance of the features.

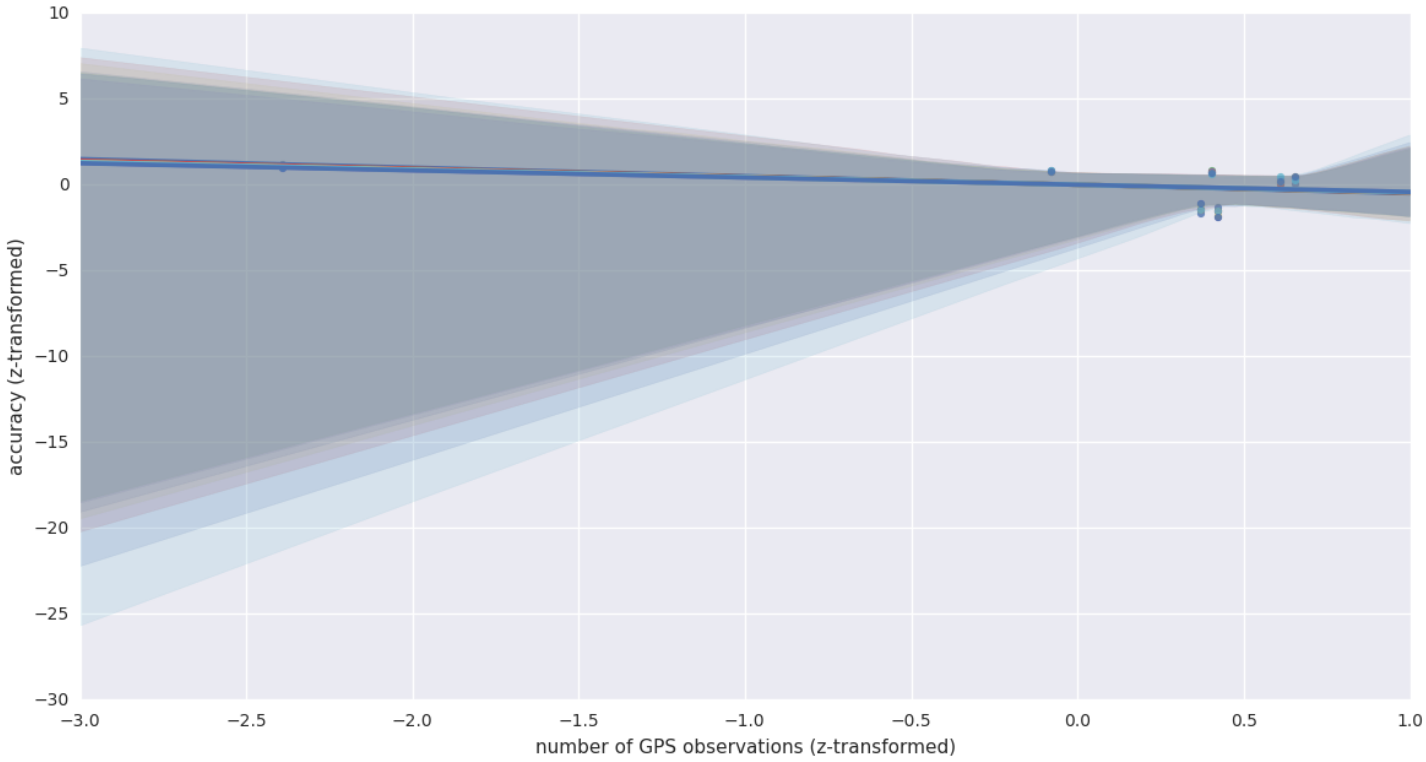
Main points:

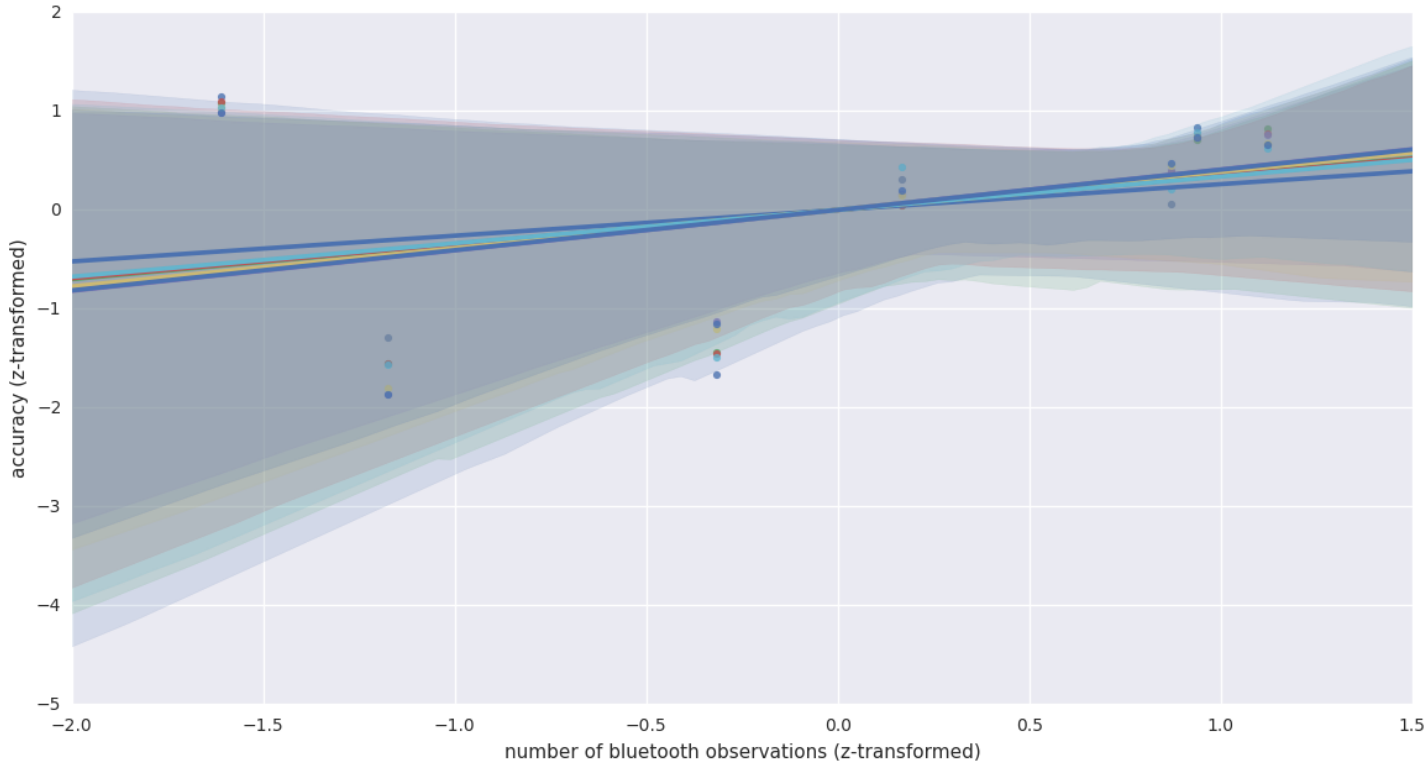
1. The top three features are timeSpent, spatialTriadicClosure and numberOfPeople. Those three features account for roughly 0.5 of the predictability of the model

2. The network features become more important at timepoints 5 and 6. See also general plot dealing with model scores.

3. The only type of place that somewhat matters is university. Conclusion: Whom you meet is much more important than where you have met them. This is in contrast/expansion to Brown et al. () and Scelato et al. () who both found that the type of place matters quite a "bit." It is not innate qualities of places that drive network formation but the people you meet at those places!

3 Correlation of performance with amount of GPS and bluetooth measurements





4 Implications/Interpretations or Why Is This Important?

1. Adding "context" information improves the link prediction model. Context matters!
2. On the other hand "place" does not matter! It is whom you meet!