Information, Entropy, Divergence, Deviance

Stat 341

March, 2017

Weather Prediction Accuracy

Consider the predictions of two weather people over the same set of 10 days. Which one did a better job of predicting? How should we measure this?

- **First Weather Person:**

Day	1	2	3	4	5	6	7	8	9	10
Prediction	1	1	1	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Observed										

Figure 1:

- **Second Weather Person:**

Day	1	2	3	4	5	6	7	8	9	10
Prediction	0	0	0	0	0	0	0	0	0	0
Observed										

Figure 2:

Last time we discussed some ways to compare which weather person makes the best predictions. Here is one more: Given each weather person's "model" as a means of generating data, which one makes the observed weather most likely?

This has two advantages for us: