Industrial polymer problems have led to nearly all the advances in my research. In this talk I will share some examples. The first began when I was finishing my PhD at Princeton. A recent graduate working at American Standard brought me a thermoset that he was hoping to could replace ceramics in bathroom sink production. My measurements of viscosity increase during curing really helped him modify his formulation. This generated a desire to better understand the rheology of cross linking polymers. After I came to Minnesota scientists at DowCorning helped me find a model silicone formulation which led to fundamental relations for branching and gelation and one of the most highly cited papers in Macromolecules. That experience taught me to continue to talk to industrial scientists and learn what is challenging them.