

<http://www.afr.com/technology/kenneth-rogooff-concerned-by-the-dark-side-of-the-technology-revolution-20180308-h0x8n4>

Assume there is a firm which has monopoly in a market. This monopoly could be either Bertrand or Cournot. If Cournot there could also be a group of monopolists who judge whether to make room for the entrant or to buy them out, though it will be harder to sustain than a Bertrand monopoly.

Firms enter the industry at some rate that is specified that resembles a Poisson arrival rate. New entrants don't have the ability to compete yet but gradually try to reduce their costs so as to enter the industry. Possibly they enter with a random budget that decreases as they eat into it. If their budget runs out they are dropped out from the pool. Each firm works on its own intellectual property that disappears once the firm drops out.

The firms deterministically or probabilistically receive shocks to their productivity which reduces their cost. The monopolist either observes these shocks or observes an imperfect signal for these shocks. The shocks gradually decrease their marginal cost or fixed cost until they can enter the market.

The monopolist can either observe or not observe the firms funding in which case it may offer the firm more than its expected value requires it to. However it may have an priori on the funding. I.E what is the probability that they have this much money conditionally on the fact they have reached this far.

Central questions: When does the dynamic equilibrium lead to the monopolist not losing their market lead and when does it not lead to them losing their lead.