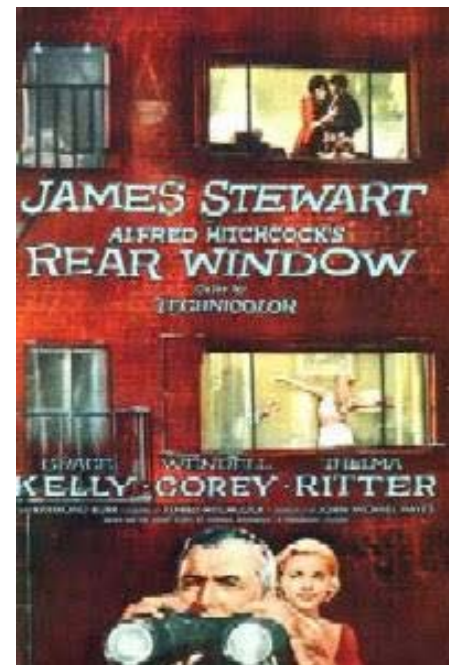


A Look From The Outside

ADSA16, Northeastern University

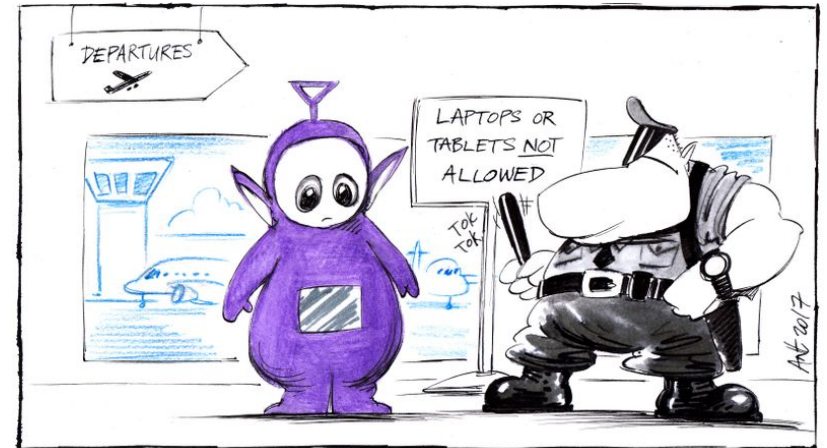
05/02/2017

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The Inside Looks Still The Same

- In the seven long months since I left the industry the problems have not changed
 - The adversary is motivated capable and adaptable
 - “...we know that would be the Super Bowl for the terrorists, to knock down an airplane in flight, particularly if it was full of Americans” (John Kelly at Face the Nation)
 - Resources for the good guys keep being limited (2018 TSA budget likely less than 2017)
- We must be able to qualify and deploy new technologies faster



Some Reflections From The Outside

- We have lost track of the mission: the OEMs are not the enemy
 - Most of them want to do a great job
 - It is not fun to get a call from an airport at 4 AM in California!
- There is a diminishing return by spending more time on lab testing



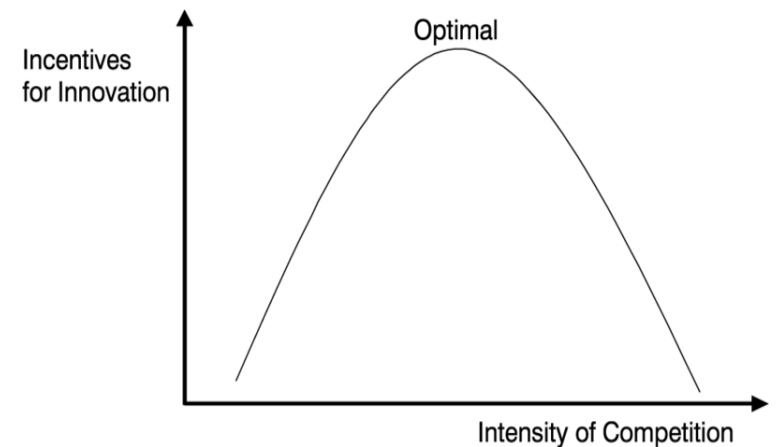
Can we accelerate the rate of innovation by learning to be faster to deploy and fix issues when they appear?

Some Ideas From The Outside

- OEMs: Massively invest on automation to reduce test time and to test edge conditions: it really pays off
 - TSA: allow remote connections to deployed systems
 - Quick deployment of SW updates
 - Data gathered can drive significant increase in reliability and availability and speed up algorithm development
 - Both: develop a software architecture to mitigate operational risks
 - SW to run in “Shadow” mode
 - Capability to seamlessly revert to older SW version if needed (common IT practice).
-

And Then ...

- Once testing of new technologies is streamlined many good things will happen:
 - Lower barrier to entry for other players, which means somewhat more competition
 - More resources spent on value added efforts...by everybody!
 - OEMs enabled and incentivized to invest in R&D and long term projects
 - Partnerships with third parties becomes a need to stay competitive
 - Government role should be to fund these smaller players and then let the market play out



P. Aghion et. Al., Oxford Journals,
2005