Patently Risky: Framing, Innovation and Entrepreneurial Preferences

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Introduction

• “It has long been known that patent law and policy must navigate a precarious trade-off between static monopoly on the one hand, and dynamic incentives on the other.”
  • Monopoly rights are not static.
  • IPRs are invalidating patents at alarming rates.
  • Declaratory Judgements remove patent rights.
  • Patent enforcement is becoming more expensive and challenging.

• M-Turkers manifest greater risk aversion, regardless of frame, than students on the Internet and in the Lab.”
  • Students have a very safe environment from where to operate.
2.1 Intellectual Property

• When discussing “Innovation,” you must discuss trade secrets.
  • The Defend Trade Secrets Act of 2016 has strengthened trade secrets.
  • Depending on the type of invention/innovation, trade secrets may be your best for of IP protection.
  • While patents must be enabling, a strong IP portfolio will be a combination of patents and trade secrets.
2.1.1 Motivation for Inventing and Creating:

• This is briefly touched upon, but there are other intrinsic motivators to inventing. You cannot discount the emotional element to create something new, to control your schedule, be passionate about what it is that you are doing.

• Also, what is an invention? Is filing (or being awarded) a patent what you define as inventing or does there need to be an attempt to commercialize?
2.1.2 Risk Preferences of Individuals and Firms with Respect to Creating:

- “potential creators and others in the innovation system suffer from risk-aversion like regular people.”
  - Who are these people? Patents cost $1000s. Corporations are very different – they employ people to invent, but those people don’t have risk.
- “copyright holders are risk averse, valuing clear entitlements more than equivalent murky ones (Horowitz 2012).”
  - Ignores the fact that for a copyright the work must be fixed. Once it’s fixed then a fee is paid.
- “potential inventors are sufficiently incentivized to create new inventions by the tiny chance of a large payoff from a patent.”
  - Who is this? People employed at corporations and Universities? Individuals?
- Astebro concludes that “risk-seeking is one of several plausible reasons why so many inventors proceed to develop their inventions while only a small fraction can reasonably expect to earn positive returns on their efforts. Another plausible explanation is that inventors are unrealistic optimists in that they overestimate their abilities to succeed” (Astebro 2003, p. 236).
2.2.2 Light Computation:

• Framing – critical explanation, but it does rely on the imagination, rather than jumping off a cliff, to “imagine yourself in a contest.”

• The framed question:
  • “Will be given $8 to keep or invest…”
  • “Your earnings will be $8…”

• Critique of the framed question:
  • Being “given” something has zero risk.
  • Analysis of a 1 in 3 chance – law of averages will yield $36 over 3 chances; an average of $12 per chance.
  • A diversified portfolio would indicate that the risk makes sense to invest.
5 Discussion and Implications

• “Consider the Invest frame, where the experiments used the word “invention.” The subjects became much more willing to take the significantly positive expected gamble.” –
  • Just using the word “invention” is not significant enough to influence IP policy.
  • Being “given” the money is more likely to be influencing the decision.

• “We recognize that our experiments have crossed the entrepreneurial investing and inventing aspects, and future research to separate these may be fruitful.”

• “Second, most of the interesting questions about innovation policy were impacted into the payoffs.”
  • I am not seeing the correlation about innovation policy – you asked about a investment risk of <$10. What would the decision analysis have been if it was $10,000.
• These experiments represent just a first step in a series of experiments on patents and their role in economics and law.
• “Before filling out a brief questionnaire, will be given $8 either to Keep or to Invest in creating a hypothetical invention . . . . If you choose to Keep, your earnings will be $8. If you choose to Invest there is a 1/3 chance that the creative and commercialization process will be successful and return $30, and a 2/3 chance that it will be unsuccessful in the market and return $3. A role of a die will determine your earnings, either $30 or $3.”
Change to:
• “If you choose to Keep, your annual earnings will be $80,000 and you will have the same mediocre job for the next 3.x years. If you choose to Invest there is a 1/3 chance that the creative and commercialization process will be successful and return $300,000, and a 2/3 chance that it will be unsuccessful in the market and you will have invested years of your life, taken a reduced salary of $64,000 annually (a 20% pay reduction), but had the opportunity to work for yourself and build your dream. Your passion and devotion will play a significant factor in your success, but chance and luck will play a factor too.
• The introduction stated “a critical input into a defensible IP policy is knowledge of how and when incentives work in entrepreneurial contexts.”
  • The investment analysis for framing and risk aversion is not a test of any entrepreneurial context.