

Intellectual Property Rights and the Future of Universal Service Obligations

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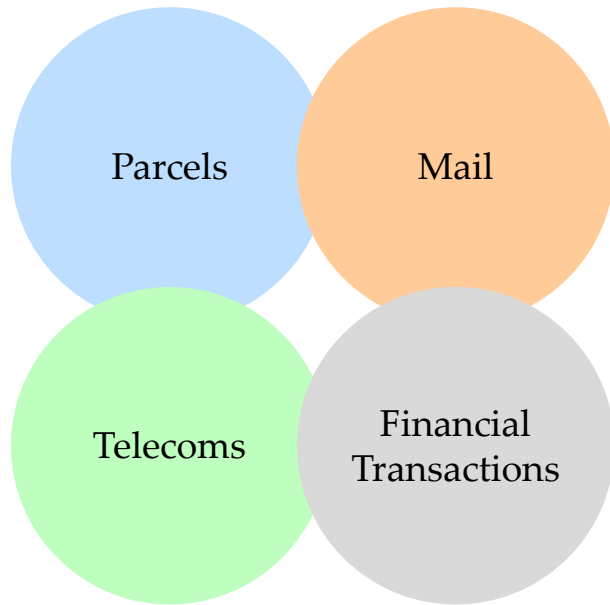
Agenda

- (1) The postal sector yesterday and tomorrow**
- (2) The economics of an optimal patent policy**
- (3) A simple game-theoretic model**
- (4) Conclusion**

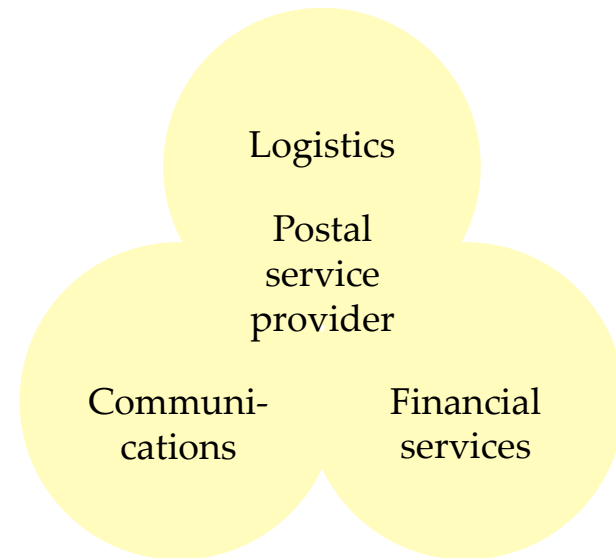
Introduction

The postal sector

Yesterday's post



Today's and tomorrow's post



There is no such thing as a postal market...

Postal universal service obligations

USO dimensions

- Area coverage (access points, delivery)
- Uniform prices
- Delivery frequency
- Product range

Competitive Effects of USO

- Regulatory asymmetry in the marketplace
- High cost due to inefficient infrastructures and services
- Economies of scale and scope due to production and consumption complementarities between USO and non-USO products
- Strategic commitment in otherwise contestable market

On patents

What do patents bring about?

- Form of intellectual property
- Set of exclusive rights for a limited period of time
- Exchange for the public disclosure of an invention

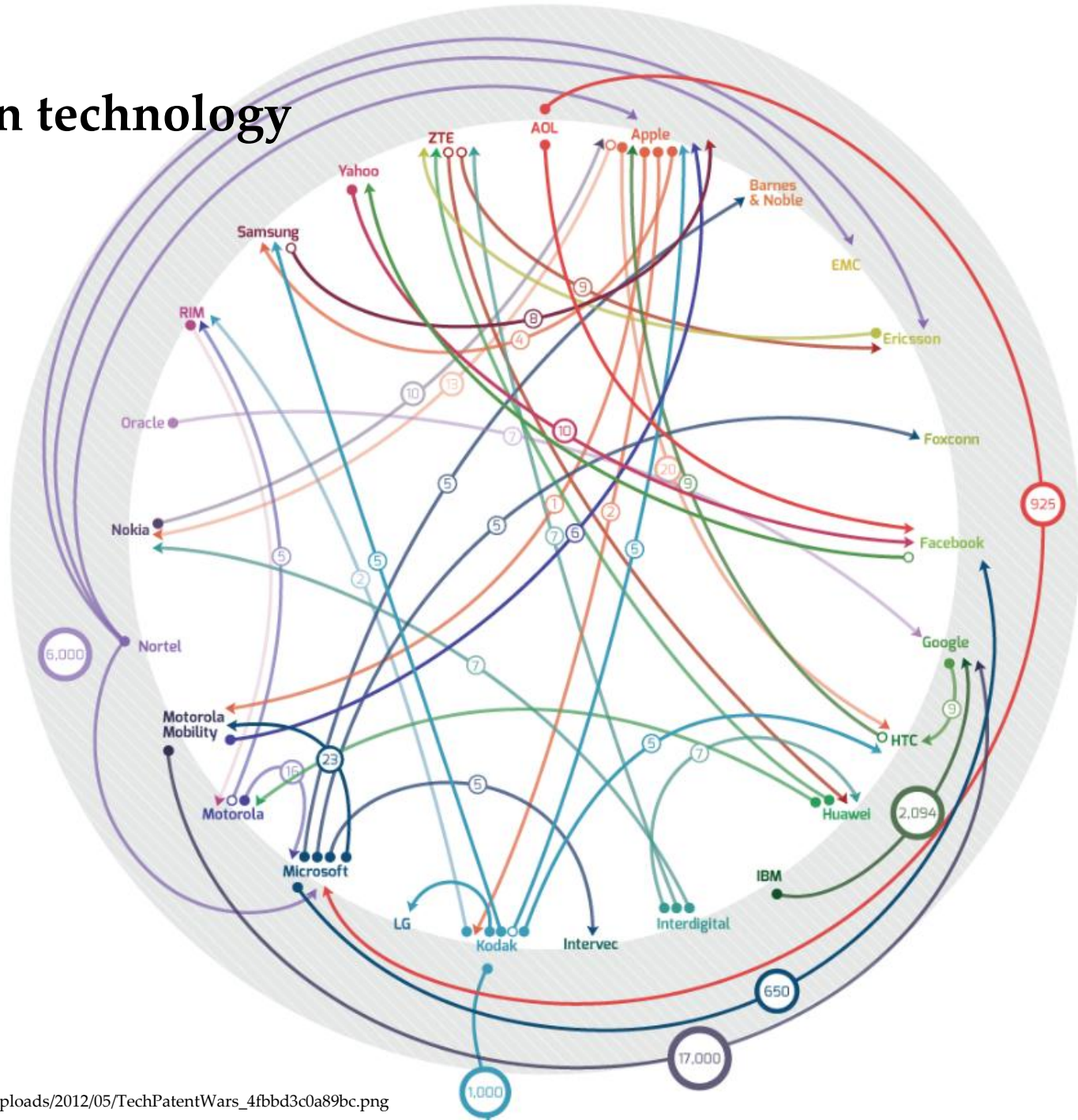
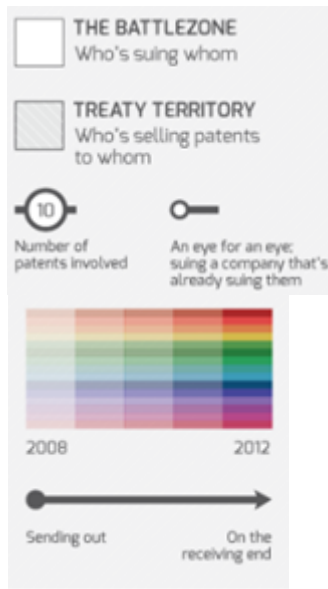
Economic rationale for patents

- Underinvestment in innovation if there is no protection of intellectual property rights (“free rider problem”)
- Allocative inefficiency due to market power during the patent period
- Patent policy to optimally set the period and width of patents

Recent development: “Patent wars”

- Patent fences to raise a rival’s cost of imitation
- Patents as bargaining chips in cross-licensing negotiations
- Patent trolls which aggressively exploit a patent portfolio

Patent wars in technology



How patents interact with the USO

Innovative (and patentable) services may

- be necessary to fulfill (current or future) USO
- create economies of scope with USO services
- create complementarities in the consumption together with USO services

→ Potential inefficiency in allocation of patents

→ They “should” be offered by the universal service provider at least for some consumer groups

→ Inclusion in the USO?

→ Other policy instruments?

Simple game-theoretic model

- Two kinds of firms: Incumbent (USP), entrants
 - Innovation race; Poisson innovation process
 - Forced licensing if an entrant wins
 - Firms maximize profits over innovation effort
 - Policy instruments:
 - Value of a patent (duration, breadth)
 - Distribution of patent's private value between firms
- Patent value strengthens overall innovation effort; has no effect on incumbent's innovation due to anticipation of entrants' reaction
- Licensing weakens incumbent's innovation effort; enhances probability of competition in innovative service; reduces overall innovation effort

Conclusion

- (1) Increasing intermodal competition introduces regulatory challenges – not just for sector-specific regulation**
- (2) Universal service obligations and intellectual property rights strongly interact; they need to be calibrated to each other**
- (3) Forced licensing is potentially an optimal policy instrument**

Thank you!

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