

CCT490: Week 5

Intellectual Property and Software

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“public goods in the
technical sense”

Solutions

- the government
- other large actors
- secrecy

Public Solutions

- ~~compel~~
- hire / support
- reward
- help capture the value

Prizes

- can encourage secrecy
- centralized
- not for poor inventors

Helping Capture the Value

- patents
- copyright

**both are legal
monopolies**

Patents

- ideas
- require approval

Copyright

- expression
- automatic (now)

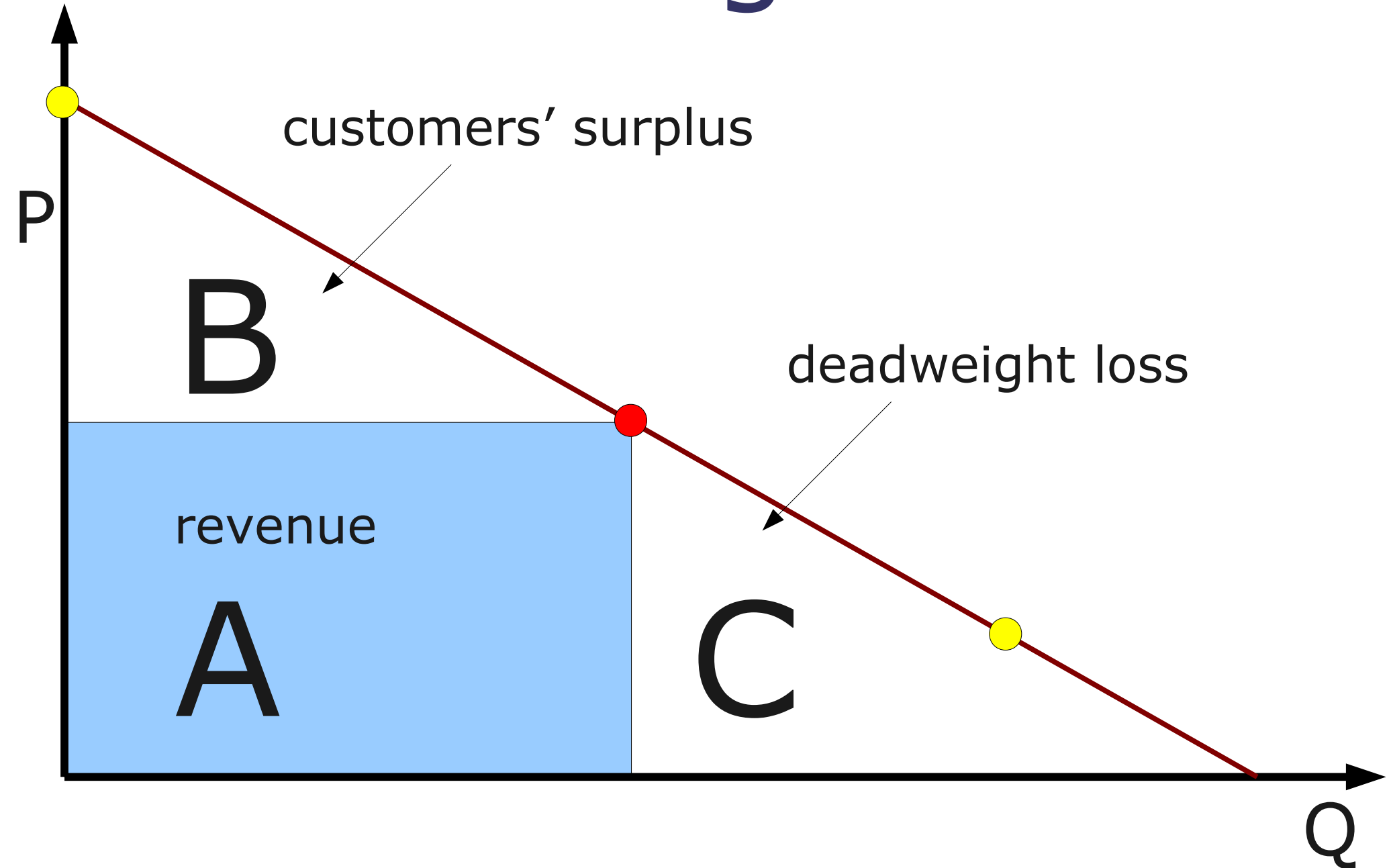
Hiring, prizes

- centralized 😞
- can cost too much 😞
- costs shared by all 😞

Patents, ©

- de-centralized 😊
- can cost too much 😞
- costs born by users 😊
- deadweight loss 😞

Deadweight Loss



“Costs Too Much”

- overpaying
- duplication of effort
- overhead

**consider the risk of
under-investment!**

What Is the Best
Approach?

IP in Software

Old Days

Letters Patent:

“an open letter or document... issued by a monarch or government to record a contract, authorize or command an action, or confer a privilege, right, office, title, or property” (OED)

“Stationers Company” - a monopoly on printing

Patents for Inventors

First on one-off basis

Then at discretion of the monarch

Finally formalized

- Venice: 1474
- England: 1623 (“Statute of Monopolies”)

Anno Octavo

Annæ Reginae.

An Act for the Encouragement of Learning, by Vesting the Copies of Printed Books, in the Authors or Purchasers of such Copies, during the Times therein mentioned.



Whereas Printers, Booksellers, and other Persons have of late frequently taken the Liberty of Printing, Reprinting, and Publishing, or causing to be Printed, Reprinted, and Published Books, and other Writings, without the Consent of the Authors or Proprietors of such Books and Writings, to their very great Detriment, and too often to the Ruin of them and their Families: For Preventing therefore such Practices for the future, and for the

Encouragement of Learned Men to Compose and Write useful Books; May it please Your Majesty, that it may be Enacted, and be it Enacted by the Queens most Excellent Majesty, by and with the Advice and Consent of the Lords Spiritual and Temporal, and Commons in this present Parliament Assembly, and by the Authority of the same, That from and after the Tenth Day of April, One thousand seven hundred and ten, the Author of any Book or Books already Printed, who hath not Transferred to any other the Copy or Copies of such Book or Books, Share or Shares thereof, or the Bookseller or Booksellers, Printer or Printers, or other Person or Persons, who hath or have Purchased or Acquired the Copy or Copies of any Book or Books, in order to Print or Reprint the same, shall have the sole Right and Liberty of Printing such Book and Books for the Term of One and twenty Years, to Commence from the said Tenth Day of April, and no longer; and that the Author of any Book or Books already Composed and not Printed and Published, or that shall hereafter be Composed, and his Assignee, or Assigns, shall have the sole Liberty of Printing and Reprinting such Book and Books for the Term of four-

Statute of Anne (1710)

Practically Speaking

Patents:

for devices

Copyright:

for books

Baker v. Selden (1879)

Patents:

ideas (for building things)

Copyright:

(embodied) expression

Software

Patents:

USPTO: “not really” (1960s)

Copyright:

A text? Maybe... (US: 1964–)

Trade Secrecy:

An open secret?

CONTU

“computer programs, to the extent that they embody an author’s original creation, are proper subject matters of copyright”

Implementation (US)

Computer Software Copyright Act of 1980:

- Added “computer programs” to the 1976 Copyright Act
- Applies to *binary* software too

Nuts and Bolts

Reverse engineering

- ok (exceptions apply)

Protection for user interface

- generally ok to copy
(“virtual identity” standard)

Canada

Implemented as one of the 1988 amendments to Copyright Act

covers “computer programs”, defined as “a set of instructions or statements, expressed, fixed, embodied, or stored in any manner, that is to be used directly or indirectly by a computer to bring about a specific result”

Special 301 Reports

Possible US trade sanctions against countries not offering IP protection

WIPO and TRIPS (1990s)

“harmonization”

Both require copyright
protection for software

Software Patents

(those are not exactly patents
on *software* per se)

the boundaries are a bit blurry

Bayh-Dole Act (US, 1980)

IP for publicly funded research

Questions?