IP ISSUES POSED BY CLOUD COMPUTING

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RANGE OF POSSIBILITIES

• Very little effect
• Renewed importance of trade secrecy
• Licensing/contracts will take care of all issues
• CFAA & DMCA anti-circumvention rules will be more important than © or trade secrecy
• Temporary buffer copies = surrogate for exclusive rights that don’t match new biz models
• Data portability issues
• Erosion of first sale, fair use rights of users
• Some big surprise will happen
LITTLE EFFECT?

• For information-rich resources that are in the cloud, IP laws may well be irrelevant
• Technology sometimes replaces IP (e.g., CSS protecting DVD movies, access controls to online databases)
• Role of IP is mainly to regulate information resources that are available “in the wild,” that is, available in a way that allows them to be copied and sold in the marketplace
SW & KNOW-HOW ON FACE

• J.H. Reichman: Big challenge for IP law to respond appropriately to information-rich products, such as computer software & biotechnology innovations, because they bear the know-how required to make them on or very near the surface of the product in the market
  – Trade secrecy has traditionally protected applied know-how necessary to make valuable products because this know-how could generally be kept inside the factory walls, much of it not easily reverse-engineered
  – Software & biotech innovations bear their know-how on the face of the product, vulnerable to market-destructive copying, easily reverse-engineered and then copied
  – Manifesto article (1994) proposed sui generis form of protection for applied know-how, a kind of “portable trade secrecy” protection to give lead-time to innovators

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SECURITY PROTECTS CLOUD

- Software as a service, & other information-rich resources in the cloud seem to reverse the know-how-on-the-face pattern, renew importance of secrecy as form of IP protection for software, other information-rich resources kept in the cloud
  - Will it be possible to reverse-engineer these resources?
  - Will it be possible to develop interoperable products without the cloud-vendor’s consent?
  - Competition and follow-on innovation rendered more difficult
LICENSING?

• To the extent that firms entrust information resources to cloud service providers, a license will be in place to set forth terms on which the resources will be processed, etc.
  – What if the IP-protected data is inadvertently destroyed or corrupted?

• IP law may inform some terms
  – e.g., trade secrecy norms as to limits on uses that can be made of information resources based on the purposes for which the resources were made available
  – e.g., © norms may inform limits on copying, distribution of information resources provided
CFAA & DMCA ANTI-CIRC?

• Information resources in the cloud may look like rich targets for hackers
• Security will become very important
• Some of the same kinds of considerations will affect IP-protected information resources in the cloud
• © & trade secrecy, as such, may not be all that useful to deter hacking
• CFAA: gaining unauthorized access to computing resources, exceeding authorized access
• DMCA anti-circumvention rules: bypassing technical protection measures that copyright owners use to protect access to, or uses, of their works
TWISTING © TO GET RESULTS?

- Goofy © ?s:
  - should processing software in the cloud be treated as a communication to the public?
  - should computer program processing be considered a public performance?
- EMI v. MP3tunes: users storing music in cloud lockers, ISP liable if infringing materials not taken down
- RAM-copying is likely to be asserted as a basis for a © challenge even if core objection different
  - Big fight over how “temporary” the copying is cf. definition of “copy”
  - Countries differ in rules about temporary copies, so the same act may be lawful in A but unlawful in B; where is the data?
NON-DISPLAY USES?

• So far Google is only displaying “snippets” of 15M + books scanned for Google Book Search
  – Unless RH gives permission for more
  – Unless work is in the public domain

• But Google regularly makes “non-display” uses of in-© books in the corpus
  – To refine search technologies
  – To develop automated translation tools, etc.
  – Also allowing digital humanities scholars to use GBS corpus for research projects
  – Underlying presumption: © owners only entitled to control “display” uses (e.g., making contents available for reading)
  – Are non-display uses fair uses?
NON-DISPLAY AS FAIR?

• Copying of whole books is said to be necessary to index them, make non-display uses
  – G certainly has a commercial purpose in mind
• Is this “transformative”? Maybe in the sense that it is a use of ©’d works for a different purpose, but caselaw on this is mixed
• Not supplanting demand for existing markets for the in-© works, but is this a new market that © owners should be able to control?
  – Andrew DeVore for Arlo Guthrie et al: we don’t even know what non-display uses G is making of ©’d works
• Will G and other cloud computing providers make non-display uses of ©-protected owned by firms that store the content there?
DATA PORTABILITY?

• Foreseeable that people & firms who have stored their data in someone else’s cloud may want to “port” that data to another cloud (or elsewhere) at some point
  – Might be dissatisfied with cloud provider
  – Might find cheaper, better terms elsewhere

• If the cloud provider has formatted the data in a proprietary manner, will it be willing to allow that data to be ported elsewhere?
  – New IP interface wars?
  – Antitrust scrutiny because of lock-in potential?
EROSION OF USER RIGHTS?

• Google Book Search settlement imagined “consumer purchase model”
  – Out-of-print books to be sold either at price set by RHs or at algorithmic prices ranging between $1.99 & $29.99 with so-many-% in each of 12 bins—average of $8.65 per book, which is higher than might expect
  – Books will only be accessible in the cloud
  – “Owners” cannot download them
  – Limits on # of pages that can be printed out
  – Limits on annotations that you can be make of your book
USER RIGHT EROSION?

- Limits on annotation-sharing with others
- Can’t lend the book to anyone, can’t sell it, can’t lease it, can’t give it away, can’t share it
- Not really “consumer purchase,” which suggests you actually own something, but a “single user license access model”
- Publishers’ dream: G to sell you a book which you cannot effectively take possession of!

• Fair use, first sale rights under © law effectively eroded
BIG SURPRISE?

• Advances in technology have often been creatively used by some in disruptive ways that led to IP challenges
  – Peer-to-peer file-sharing technologies
  – Bots to “scrape” data from websites, as in eBay v. Bidders Edge

• Seems likely to me that cloud computing may give rise to similar disruptions that will give rise to creative uses of IP laws
  – But hard for me to predict what will be the next big thing in this space