# Lawyers as Creative Ideologists:
## The Legal Framing of Software

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# Overview

- Lawyering Practices
  - constructing the ‘code of capital’ (Pistor)
  - lawyers mediate between political and social/economic realms
  - move between sites of formulation, interpretation and application of law
  - normative frameworks are flexible, adaptable, indeterminate
  - law sanctifies representation by ‘perceived objectivity of orthodoxy’
- The Appropriation of Software
  - collaboration vs exclusive rights
  - shoehorning software into the copyright paradigm
  - extension & elaboration of protection and control
- Intangibles and Tax Avoidance in the Era of Digitalisation
  - exacerbates fundamental flaws of international tax rules
  - undermines source tax base
  - royalties for the use of copyright
  - payments for digital services

# Lawyering Practices

## Socio-Legal Analysis

Both structure (political-economy) & action (sociology) (Miola-Picciotto 2021)
Constructing the 'code of capital' (Pistor 2019)
Shaped the rise of corporate capitalism 1880-2020 (Picciotto 2011)
Private law: property, contract & obligations > corporations, IPRs
Public law: Tax, Competition, Regulation (especially under neo-liberalism)

## Law Shapes Social Relations

Mediates between politics/state & society/economics
Sites of formulation, interpretation & application/enforcement of norms

## Indeterminacy of Law

Meaning depends on context & social practices: 'cognitive communities'
Abstract/general principles applied to specific situations
Interpretation of norms is teleological/purposive: 'ought' not 'is'
*Law is not internally coherent/logical system (formalism): flexible & dynamic*

## Lawyers' Practices: Interpretation

Debate law's meaning, interrogate & exploit its uncertain 'grey areas'
Claim to provide certainty, struggle over the 'right to state the law'
Sanctifying representation with 'perceived objectivity of orthodoxy' (Bourdieu)
Power = resources to dominate authoritative representation
Business lawyers dominate economic law

# The Appropriation of Software

## Programming and the Rise of a Software Industry

Collaborative process: origins in research, military applications in WWII
US military-academic-industrial complex
3 segments: custom, business packages, consumer products (applications)

## New Technologies and Existing Legal Paradigms

Software falls between patents and copyright
functional not authorial 'work' (especially machine code)
Patent Office & courts reject patentability: programs are 'mathematical algorithms'
US © law more commercial - Constitution: 'progress of science and the useful arts'
US © law revision debate 1960s: concerns about machine-copying
1964- Copyright Office registers programs under 'rule of doubt' + publication
1976 Act: copyright for 'all original works of authorship' fixed in medium

## Shoehorning Software into Copyright

CONTU 1978 (majority) report: machine-readable code as a © 'work'
Dissent (Hersey): 'work' should communicate between humans
'Shoehorning' software into copyright would distort
Seen as defence of authorship – majority support incentives for innovation

## Corporate Software Firms vs Enthusiasts & Hackers

1975 release of Altair computer kit – Microsoft formed to supply version of BASIC
Bill Gates 1976 letter to Homebrew Computer Club complains of 'theft' of the program
Tensions between 'convivial' culture & commercialisation of software as 'product'

# Interpretation, Elaboration and Extension

## Ideas v Expression

1976 Act: © does not protect 'idea, procedure, process, system, method of operation'
Protection of printing encourages publication/circulation of ideas & culture
Machine code unintelligible to humans, © would reinforce secrecy (Samuelson 1984)
Copyright Office limits disclosure to 25 lines of code; 1988 US ends registration
Software vs Hardware: operating system? Apple v Franklin (1983)
Decision enables Apple to build dominance in integrated systems
Semiconductor Chip Act 1984: hybrid of © & patent protection for 'masks'

## Non-literal 'copying' of 'sequence, structure & organisation' (look & feel)

Lotus v Paperback Software (1990): menu & commands protected
Lotus v Borland (1996) contra (Supreme Court divided) – remains 'grey area'

## Free Software Foundation (Copyleft & Open Source)

FSF's GPL 1983- : creates a 'commons' – but based on © - for authors
CC licence can allow commercial derivatives (but not FSF's GNU)

## Establishing a Global Standard through the WTO (Drahos & Braithwaite 2002)

Business Software Alliance lobbies for TRIPS Agreement 1995, Article 10
'programs whether in source or object code shall be protected as literary works'

## Patentability conceded for 'useful' applications

Diamond v Diehr (1981) opened floodgates for patent registrations
'Reverse engineering' is grey area also for patents

# Control by Combining Property and Contract

## Competition Strategies

Microsoft licenses Windows to OEMs to boost size & share of PC market
Contracts can control permitted uses, *only between parties*
Can restrict decompilation & reverse engineering
Mass market for software products & applications needs property rights
Software firms all agree, though battle over scope of protection

## The Beauty of the EULA (End-User Licensing Agreement)

Transaction characterised as a licence, independent of sales contract
Shrink-wrap/ click-through to indicate acceptance
Aims to control permitted uses – but which uses need permission?
Restricts resale of the copy – likely permitted by 'first sale' rule?
Permits copying needed to operate the program -- implicit in sale?
Also regulates other uses – reverse engineering etc.
Users also grant rights – especially to collect data

## Software Applications Monetise Global Social Networks

Applications supplied to users 'free' create 'platform economy'
Control of the Code enables appropriation of value from transactions
Amplified by algorithms that channel social interactions

## Rise of the Software-based Giant TNCs

Apple, Microsoft, Alphabet, Amazon, Nvidia, Meta in top Ten TNCs
(by market capitalisation, 2022)

# Intangibles and Tax Avoidance in the Era of Digitalisation

## Digitalisation Exacerbates Fundamental Flaws

Ownership of intangibles by low-taxed intermediary entities

TNCs reduce tax in host and defer tax in home countries

Shift from manufacturing to services ('servicification')

less need for physical presence, no taxable presence where sales made

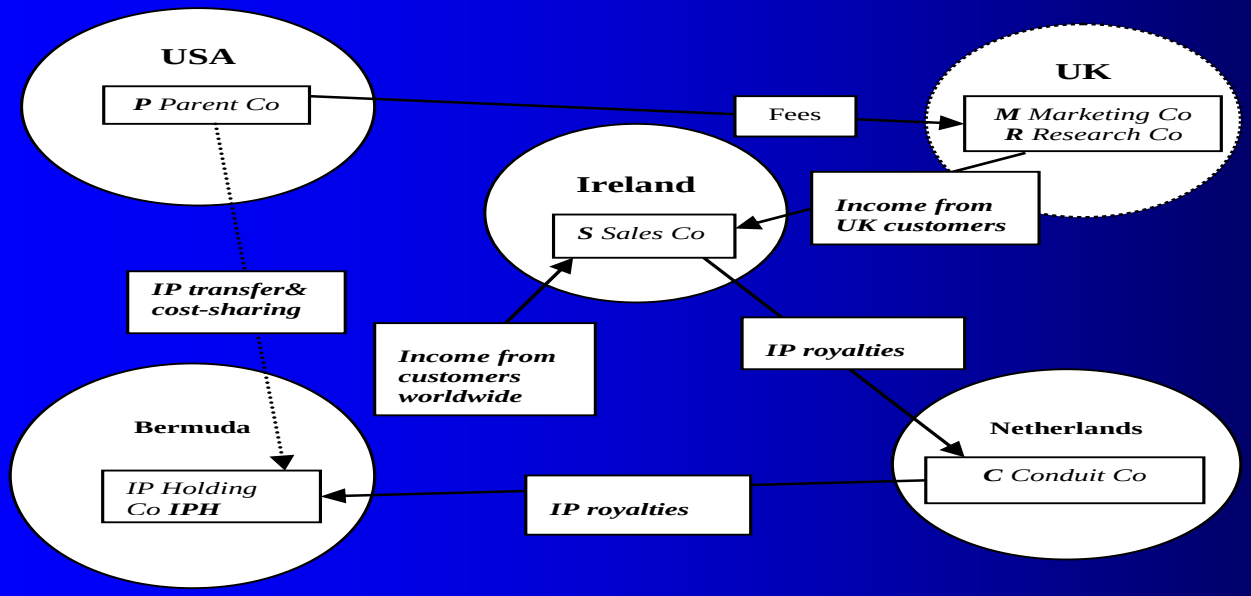
## Undermining the Source Tax Base

Payments of fees for IP licensing & services deductible from business profits

Channelled via conduits (e.g. in NL) to havens (e.g. Bermuda)

Income from sales attributed to low-taxed affiliate (e.g. Ireland)

e.g. Double-Irish Dutch Sandwich (Google)



# Neutering Source Taxation I: Royalties

## Royalties for the Use of or the Right to Use Copyright

Countries tax from activities at source, but restricted by tax treaties
OECD Model: only taxable if attributable to a permanent establishment (PE)
UN Model: royalty income can be taxed at source (withholding tax on payment)
(widely used, 1381 bilateral treaties allow at least 10% WT)

## Taxing Payments for the Use of Software

OECD 1992: payments for software not for 'right to use' the copyright
Not 'exploitation' of © (although EULAs explicitly license rights to use)
    included in OECD model's Commentary 1992- (some reservations)
    included in UN Commentary 1997 as 'relevant'
Inclusion of alternative interpretation in UN Commentary
    2011 'some members are of the view that may constitute royalties'
    2021: (i) payment for use is royalty, even if permitted
    (ii) 'large minority': should be taxable even if not exploiting ©
    (needs renegotiation of tax treaties)

## National Courts follow OECD Commentary

Arguments advanced on behalf of software TNCs
India Supreme Court: *Engineering Analysis* (2021) resolution of many cases
    OECD authoritative, India's reservation imprecise
Kenya High Court: *Seven Seas* (2021): cites OECD Commentary & Indian SC

# Neutering Source Taxation II: Fees for Services

## Fees for Services

OECD Model: services are 'business income', need permanent establishment

Income from digitalised services can be attributed to non-resident

UN model: can tax if delivered for 183 days through personnel
(diverse interpretations: must personnel be in country, and for 183 days?)

Many treaties allow WT on 'fees for technical and professional services'

UN Model: new article 12A (2017): WT on payments for Technical Services
but 'technical' requires human intervention, doesn't cover digitalised
new article 12B (2021): automated digital services

## Project on Base Erosion and Profit Shifting (BEPS)

OECD 2012, G20 2013, now Inclusive Framework on BEPS

Action 1: Tax Challenges of Digitalised Economy

Reports 2015: more work needed on Action 1, rest patched up

Proliferation of unilateral measures, particularly Digital Services Taxes

Package Two Pillar 'deal' 2021

Pillar 1: can tax (small) share of global profits based on sales – but only c100 TNCs
requires multilateral convention – very unlikely (particularly US)

Pillar 2: Global minimum tax: EU adoption held up by Hungary

# Thank You