GOOGLE v ORACLE: REIMPLEMENTING PROGRAM INTERFACES IS FAIR USE

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OVERVIEW

- Debate about "copyrightability" of computer program application program interfaces (APIs) that enable compatibility is not new
- Judicial consensus from early 1990s until CAFC's 2014 *Oracle v Google* decision: no © in APIs that facilitate compatibility
  - Fair use was one of several doctrines on which courts relied
- Review of CAFC's fair use analysis in *Oracle v. Google*
- Review of SCT's reversal analysis in *Google v. Oracle*
- What implications will SCT's Google decision have for:
  - For software © cases?
  - For fair use in other types of © cases?

WHY CLAIM © IN APIs?

- Dominant firms (e.g., IBM in 1960/70s) generally wanted to exercise control over APIs
  - Want to control who can run programs on my platform & prevent competitive substitutes
- *Apple v. Franklin* (3d Cir 1983): Franklin wanted its computers to be able to execute programs developed for the Apple II, so it copied all of Apple's OS programs
  - Because F didn't even try to rewrite the Apple OS SW to achieve compatibility, 3d Circuit rightly held that F was an infringer
  - Dicta: Achieving compatibility may be a second comer's commercial objective, but this is irrelevant to ©'ty of Apple's programs
- *Whelan v. Jaslow* (3d Cir 1986) affirmed infringement ruling for copying the "structure, sequence, & organization" (SSO) of computer programs
  - SW = literary works; SSO of novels ©-protectable, so should SSO of programs
  - Test: Everything but general purpose or function of program = protectable expression unless only 1 way to do that function, in which case not ©'ble under merger doctrine
  - *Baker v. Selden* & § 102(b) restate the idea/expression distinction

ALTAI TURNED THE TIDE ON API © CLAIMS

- *Computer Associates v. Altai* (2d Cir. 1992): Altai did not infringe CA ©s because similarities in the "SSO" of the 2 firms' scheduling programs were largely due to the need for both to be compatible with IBM OS programs ("external factors constrained [Altai's] design choices")
    - CA & amici argued that *Whelan* compelled reversal
    - 2d Cir invoked the *scenes a faire* doctrine as the doctrinal basis for API compatibility
- *Sega v. Accolade* (9th Cir. 1992): strong endorsement of *Altai*, rejection of *Whelan*
    - Interfaces, as "functional requirements for achieving compatibility," are unprotectable procedures under 17 USC § 102(b)
    - Reverse engineering copies to get access to interface information = fair use
- *Lotus v. Borland* (1st Cir. 1995): command hierarchy held unprotectable method; users should be able to port macros written in Lotus macro language to Borland's platform
- *Bateman v. Mnemonics* (11th Cir. 1996): compatibility constrained M's design choices
- *Lexmark v. Static Control* (6th Cir. 2004): copying printer cartridge SW necessary to enable compatibility did not infringe under the merger doctrine (or fair use)

ORACLE v. GOOGLE

- Sun Microsystems, developer of the Java API, supported legal position of no © in program-to-program interfaces; founded American Committee for Interop’ble Systems
  - Google & Sun negotiated about G taking a license for use of Java technologies in Android, but no deal reached
  - Google decided to use 37 of the 166 Java API packages in Android w/o license
- Oracle acquired Sun assets in 2010; then sued Google for patent & © infringement
  - Jury gave verdict for G on the patent claims; O did not appeal on this
  - Trial court ruled that G didn’t infringe © because Java API declarations were unprotectable interfaces; no other way to invoke implementing code for specific tasks so “merger” of idea & expression & part of an unprotectable system
  - Example: java.lang.Math.max (x, y) for comparing 2 numbers to see which is bigger
- CAFC reversed, holding that Java API declarations were “original” so ©’ble; no merger because Sun/O’s engineers had many choices; remanded case for jury trial on fair use

2 INTERPRETATIONS OF *BAKER v SELDEN*

- Hot dispute at the core of the SW © disputes from *Franklin* to *Google*
- *Baker v. Selden*, 101 US 99 (1879):
  - DCT in *OvG*/1st Cir in *Borland*/72 IP Profs in *GvO*:
    - Selden's © protects his EXPLANATION of a bookkeeping system, not the SYSTEM
    - Constituent elements of the system (i.e., selection & arrangement of columns & headings on the forms) are outside ©'s bounds, even if concrete & specific
    - Baker was thus free to reimplement the system as long as he didn't copy S's explanation
    - Bookkeeping system = useful art; forms as embodiment of system
    - Exclusive rights in useful arts only available from the patent system
  - Nimmer/*Franklin*/*Whelan*/CAFC in *OvG*:
    - *Baker* = origin of idea/expression distinction & merger doctrine; NOT about systems
    - Baker's forms didn't infringe because sufficiently different from Selden's
    - Only abstract ideas are excluded; if concrete & specific, then original expression

17 USC § 102(b)

- § 102(b): In no case does © in an original work of authorship extend to any "idea, **procedure, process, system, method of operation**, concept, principle, or discovery" regardless of how it's embodied in a work
  - Congress added this provision to 1976 Act to ensure that the scope of © in computer programs would not be interpreted overbroadly
- DCT in *OvG*, 1st Cir in *Borland*, 9th Cir. in *Accolade*, & 72 IP Profs:
  - § 102(b) codifies *Baker*'s system/method exclusion from ©
  - API = unprotectable method or system under § 102(b), not within scope of © in the Java SE
  - Or unprotectable under the merger doctrine
- Nimmer/*Franklin*/*Whelan*/CAFC in *OvG*/Thomas dissent in *GvO*:
  - § 102(b) restates the idea/expression distinction
  - Courts can't take the procedure/process/method/system exclusions literally or program code would not be ©'ble, contrary to Congress' intent

CAFC ON GOOGLE’S FAIR USE DEFENSE

- O appealed from jury verdict in G’s favor on fair use defense
- CAFC agreed with O that no reasonable jury could have found fair use
- Purpose & character of the use (for O):
  - G’s purpose in copying was overwhelmingly commercial
  - Nontransformative because G used declarations for same intrinsic purpose as Sun/O’s intended use
- Nature of ©’d work: jury could find functional considerations predominate (for G)
- Amount taken: 11,500 lines of “declaring code” = substantial
- Harm to market: O suffered lost license fees + harm to O’s ability to enter smartphone market (for O)
- SCT agreed to review both the ©’ity & the fair use rulings by the CAFC

GvO AMICI AT MERITS STAGE

- In support of G (27):
  - Microsoft, IBM, Developers Alliance, Open Source, CCIA, various NGOs
  - 83 Computer Scientists
  - 7 law professor briefs (mine for 72 IP scholars)
  - All but 3 urged the SCT to reverse on the ©'ty issue
- In support of O (31):
  - Solicitor General
  - Dolby Labs; Mathworks; SAS Institute
  - MPA, AAP, © Alliance, Authors Guild, © "thought leaders"
- In support of neither (2): AIPLA, Rauschenberg Foundation

ORAL ARGUMENT DID NOT GO WELL FOR G

- Breyer, Kagan, & Sotomayor struggled to analogize the ”declaring code” to QWERTY keyboards, Dewey Decimal System, filing cabinets
- Thomas analogized what G did to competitor’s stealing a football team’s playbook
- Roberts analogized G’s merger argument to cracking open a safe because that’s where the money is
- Alito & Kavanaugh were skeptical of G’s un©’ity argument
  - Doesn’t declaring code fall within statutory definition of computer program in § 101?
- To overturn CAFC would require 5 votes, some from conservative judges
- Fair use was the most likely basis for reversal because of jury verdict for G
  - Late stage briefing about how much deference to give to jury given that fair use is mixed issue of law & fact
  - CAFC gave virtually no deference; SCT gave it more, but says fair use more law than fact issue

BIG TAKEAWAYS OF *GvO*

- SCT gave significant weight to substantial investments 6M Java programmers had made in learning Java API declarations
  - This enabled them to write apps for Android w/o learning a new dialect of Java
  - Declarations are valuable because of those investments, not just Sun/O's efforts
  - Reimplementation of an interface "allows creative new computer code to more easily enter the market"
- SCT perceived Oracle to be asserting © in a manner that would "interfere with, not further, ©'s basic creativity objectives"
- *GvO* reinforces & extends SCT's 1994 *Campbell v. Acuff-Rose Music* on significance of "transformative" purposes
  - CAFC took narrow view of "transformation" & fair use; SCT rejected this

NATURE OF WORK FACTOR LOOMED LARGE

- SCT: Java API declaring code is a “user interface” (humans to machines)
  - To invoke particular tasks, developers use “method calls” (in which O claims no ©)
  - Method calls are “inextricably bound” with Java declarations for each task
  - Declarations are also “inextricably bound” with implementing code (which is copyrightable, but which G did not copy)
- G copied declarations “because [this] would allow programmers to bring their skills to a new smartphone computing environment”
- If declarations are ©’ble, they are farther from the core of © than implementing code, so broader fair use to reimplement them
- G’s reimplementation of declarations was itself creative; also enabled creativity of sort © aims to foster by 6M Java programmers to make apps

TRANSFORMATIVE PURPOSE

- “Transformation” = “adds something new, with a different message or purpose”
  - Parody = critical commentary; clip of movie to prove a point about its cinematographer
- SCT: G had a “transformative” purpose in reusing Java declarations
  - Java API was originally designed for laptops & desktop computers
  - Smartphones are very different type of computing environment
  - Reused declarations serve same intrinsic purpose, but in different context
  - Android is a “highly creative & innovative tool”
  - Android’s use of the declarations made it easier for others to make apps for it
  - Testimony in record that reimplementing interfaces is a common practice in the software industry
  - Sun’s policy was to allow reimplementation of interfaces, compete on apps

AMOUNT & SUBSTANTIALITY

- 11,500 lines of declaring code may seem like a lot
  - But this constituted only 0.4% of the Java API as a whole
  - Also a very small amount of 15 million lines of Android source code
- G only copied declarations needed for its smartphone platform
  - Most of the Java API was irrelevant because laptops & desktops must enable many tasks that smartphone platforms don't need to perform
  - G developed many declarations to enable new functions for smartphones
- Nexus between the amount & transformative purpose factors
  - G's use was reasonable in light of its transformative purpose
- Declarations used were "key" to unlocking programmer creativity

WHAT HARM TO MARKETS?

- SCT majority found lost license fee arguments unpersuasive because negotiations between G & Sun were about licensing of Java technologies more broadly, not just the 37 API packages
- O's potential market harm arguments also weak
  - Sun was not well positioned to enter smartphone market
  - Sun had tried to enter mobile phone market, but failed at this
  - Sun's last CEO: our failure to build smartphones was not caused by Android
  - Jury heard testimony on G's & O's harm claims; jury must have believed G
- Consider not just losses, but also public benefits of G's copying
- Enforcing © may sometimes risk harm to public interests
  - Harms to competition & ongoing innovation

THOMAS DISSENT (ALITO JOINED)

- Declaring code is copyrightable
  - Satisfies statutory definition of "computer program" in § 101
  - Congress did not distinguish among different types of program code
  - Google admits declaring code was "original"
  - Majority's ruling undermines Congressional intent
- Google's use of the 11.5K lines of code was not fair use
  - Nontransformative & commercial weigh heavily for O
  - Harms to actual & potential markets also weigh heavily for O
  - 11.5 K is substantial amount
  - Concern about implications of *GvO* beyond software
    - Unlicensed movie based on book also unlocks creativity, but undermines derivative work right

GvO ON SW © PRECEDENTS?

- SCT cited *Lotus v Borland* decision 4X (3 to Boudin's concurrence)
  - So even though SCT split 4-4 on it in 1996, 1st Circuit decision got stronger
- *GvO* also cites approvingly to other no© in IFs/compatibility cases: *Sega v Accolade*, *Sony v Connectix*, *Lexmark v. Static Control*
- No mention of *Computer Associates v. Altai* or its many progeny or the abstraction-filtration-comparison test
- Also no mention of CAFC's *OvG* 2014 or *Whelan* decisions
- *Baker v. Selden* & 17 USC § 102(b) mentioned only in passing
  - Even though most of the Google-side briefs relied on both

COMPATIBILITY?

- The CAFC's 2014 *OvG* decision quoted the *Franklin* dicta about a developer's wish to achieve compatibility with another program as a competitive objective that was irrelevant to "copyrightability"
  - Besides, Google developed Android to be incompatible with Java platforms
- *GvO* opinion hardly mentions compatibility
  - Perhaps because most programs written for Java platforms do not run on Android, & vice versa, although some apps would run on both types of platforms; existing programs can be adapted to run on both
- *CA v Altai* & progeny were "truer" compatibility cases: necessary to reimplement the API to ensure interoperability of apps & OS code

LEMLEY & SAMUELSON ARTICLE ON SSRN

- Interfaces & Interoperability After *Google v Oracle*, Tex. L. Rev. (2021), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3898154
- *Altai* & progeny have held APIs unprotectable by © law under *scenes a faire*, merger, & the § 102(b) method/system exclusions are still good law
  - Fair use is not the only defense that is viable in SW © cases involving partial or total compatibility cases
- *GvO*, like *Altai* & progeny, regards SW as highly functional, qualifying for only "thin" protection from © law
- Many respects in which G's merger & § 102(b) system arguments resonated with Breyer (declarations "inextricably bound" with method calls, code)
- Many analogies in *GvO* between Java declarations & un©'ble creations
  - Gas pedals, QWERTY, file cabinets, robots fetching recipes for cooks
- Compatibility promotes competition, ongoing innovation, public interest

IMPACT OF *GvO* IN SW CASES?

- Google & many supporting amici wanted the SCT to rule on the ©'ity issue, as this would provide greater certainty for the industry
  - Easier to get out on motion to dismiss if interfaces aren't ©'ble
  - Several appellate decisions (e.g., *Altai*) support G's ©'ity defense
    - Nothing in *GvO* decision that calls these rulings into ?
  - Fair use is decided case-by-case, often said to be fact-specific; burden of proof on D
  - Justice Breyer's opinion is about as strong a holding that reimplementing others' interfaces is fair use as could reasonably be expected
  - BUT will the outcome be different if the reimplementer is a direct competitor?
- *Google* may also have implications for cases about command structures, command codes, input/output formats because of user investments
  - *SAS Institute v World Programming Ltd*, now pending before the CAFC, may test this
    - WPL's program emulates SAS functionality, allows users' SAS Language programs to be executed
    - DCT: SAS failed to prove copyrightability of nonliteral elements alleged to be infringed
    - SAS says WPL copied input/output formats held copyrightable in *Eng'g Dynamics* case
    - SAS's appeal brief relies heavily on reasoning of CAFC's 2014 *OvG* ruling

IMPACT OF *GvO* FOR FAIR USE?

- 10 briefs filed by © lawyers or industry groups in *GvO* urged SCT to affirm CAFC's fair use-hostile ruling
  - CAFC adopted a narrow view of "transformativeness" in fair use cases
  - If nontransformative & commercial, fair use should be disfavored
  - "Fair use has gone too far" (e.g., *Authors Guild v Google*, *Cariou v. Prince*)
- *GvO* reaffirms broad interpretation of *Campbell,* its transformative purpose, & the interplay of the factors when a use is transformative
- Industry groups will now argue that *GvO* is special fair use for SW case
  - But Breyer gave an appropriation art example in explaining transformativeness
- 60 IP professors as amici supported rehearing in *Warhol v. Goldsmith* case; 2d Cir asked parties to brief implications of *GvO* for fair use in appropriation art cases; rehearing petition pending

CONCLUSION

- Reimplementing program-to-program interfaces in independently written code is fair use as a matter of law, not infringement
- Fair use defenses are going to become much more common in SW © cases after SCT's *GvO* decision & not just in cases involving APIs
- It is fortunate for small & medium-sized firms that Google & Oracle have the resources to litigate a case like this for 11 years & establish this important precedent
- But "copyrightability" debate is not over
  - CAFC is unlikely to view *GvO* as a repudiation of its 2014 *OvG* decision
  - Easy to add a patent claim to SW © case so all appeals go to CAFC, as SAS did