

Patent Analysis and Application

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Two Key Questions

- Is a patent (claim) valid?
- Does technology X infringe a particular claim?
 - Substantial overlap between these questions: the test for validity and infringement both start with claim construction
- Infringement: interpret the claims, apply the claims to the target
- Validity: interpret the claims, apply the claims to the prior art

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The Tension

- Patent holders always urge a broad interpretation of their claims in order to ensnare more infringers
 - The Risk: If the patent holder goes too broad, they also risk ensnaring prior art, invalidating the claim
- Would-be infringers generally urge a narrow interpretation of claims in order to escape infringement
 - The Risk: If the claims are narrowly construed, they are more likely to be valid

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Outcomes in Pictures

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Claim Construction

- “Claim construction” = the process of interpreting or assigning meaning to the claims
- Claim terms are given their ordinary and customary meaning from one skilled in the art at the time of invention
 - A persons skilled in the art is deemed to read a term in the context of the rest of the claim and the entire patent

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Intrinsic Evidence

- Intrinsic evidence forms the primary basis for claim construction, includes everything else that is part of the patent:
 - Rest of claim
 - Other claims: e.g., claim differentiation
 - Patent specification: a patentee may be his own lexicographer
 - Prosecution history

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Claim Differentiation

1. An apparatus comprising: ... a memory ...
 2. The apparatus of claim 1 wherein the memory is a fixed disk drive.
- *Claim 1 is by definition broader than claim 2, thus "memory" includes fixed disks and other storage devices.*

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Claim Differentiation

1. A method of packing a lunch, comprising: selecting a fruit; making a sandwich; and packing the fruit and sandwich in a container.
2. The method of claim 1 wherein selecting the fruit includes picking a fruit from a tree.

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Prosecution History

- Statements made during prosecution can and will be used during claim construction
- Estoppel: The patentee cannot urge one interpretation (usually a narrow one) to obtain a patent, and then urge another interpretation (usually a broad one) during enforcement
- Example: "the term 'mobile device' does not include laptop computer"
 - Patentee cannot later claim that "mobile device" includes laptops...

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Extrinsic Evidence

- Less significant than intrinsic evidence
 - Dictionaries
 - Treatises
 - Expert testimony

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Infringement Analysis

- Interpret claims
- Read claims in light of technology
- If a parent claim is not infringed, then by definition its dependent claims cannot be infringed
 - If the independent claim is not infringed, then none of its children are
- Infringement must be shown by a preponderance of the evidence

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Different Types of Infringement

- Literal infringement
 - Accused device literally performs/includes each and every aspect of the claim
- Non-literal infringement (Doctrine of Equivalents) – may still infringe if there are "insubstantial differences"
 - Differences are insubstantial if the accused device performs substantially the same function, in substantially the same way, to achieve substantially the same result

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Direct/Indirect

- Direct infringement
 - E.g., Accused performs each step of the a method
- Indirect infringement
 - *Contributory infringement*: selling an article that does not by itself infringe, but (1) infringes in combination with other parts, (2) accused knows article to be especially adapted for infringement, and (3) is not a staple article of commerce having substantial non-infringing uses
 - Induced infringement: knowingly causing direct infringement by another
- “Joint infringement”
 - Cannot occur without control by one party

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Basis for invalidity

- Bases for invalidity, in decreasing order of value...
 - *Anticipation with “killer” 102(b) prior art* – a single reference teaches all of the claim limitations
 - *Anticipation with other prior art*
 - *Obviousness using 102(b) prior art* – multiple combined references teach all of the claim limitations
 - *Obviousness with other prior art*
 - *Subject matter* – the claims are not directed to patentable subject matter
 - *Indefiniteness* – we cannot ascertain the boundaries of the claim

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Prior Art Invalidity Analysis

- Interpret claims
- Read claims in light of one or more prior art references
- If a parent claim is not valid, its dependent claim may still be valid (because they are narrower)
- Invalidity must be shown by clear and convincing evidence

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Invalidity: A process

- Process:
 - Interpret claims (read patent, file history, etc.)
 - Determine effective filing date of claimed subject matter: wade through priority chain
 - Determine the “critical date” = one year before effective filing date
 - Search for prior art
 - Read claims on the prior art

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Invalidity: Claim charts

Claim Aspect	Citation
1. A computer-implemented method for sorting data, comprising:	Ref X, p. 1
receiving an indication of an array of values;	Ref X, p. 2
partitioning the array;	Ref X, p. 2
recursively sorting the array.	Ref X, p. 2
2. The method of claim 1, further comprising: iteratively sorting the array when it is shorter than a specified size.	Ref Y, p. 7

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Legal Opinions

- When you placed “on notice,” you may be liable for treble damages due to “willfull infringement”
- To protect against this, parties frequently obtain legal opinions stating that:
 - The patent claims are not infringed, and/or
 - The patent claims are invalid (and thus cannot be infringed)
- If the claims are valid and infringed, no choice but to take a license or design around

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