

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

HILTON DOMESTIC OPERATING COMPANY, INC.,
Petitioner,

v.

R2 SOLUTIONS LLC,
Patent Owner.

Case IPR2023-00689

Patent 8,190,610

PETITIONER'S REPLY TO PATENT OWNER'S
PRELIMINARY RESPONSE

Pursuant to the Board's Order (Paper 13), Petitioner files this Reply to Patent Owner's Preliminary Response ("POPR," Paper 9).

I. The Cited Prior Art and Arguments are Substantially Different from those Raised in the Petition

Patent Owner urges the Board to decline institution under 35 U.S.C. § 325(d), asserting that "substantially similar" prior art and arguments were considered during prosecution of the 610 Patent. POPR, 61. That is incorrect.

A. The Asserted References are Materially Different From the Prior Art Evaluated During Examination

Patent Owner contends that Pike is substantially similar to Dean (EX1009), a paper distinguished in the specification of the 610 Patent but not expressly considered or discussed by the examiner, merely because they both disclose a MapReduce architecture. POPR, 62-64. The 610 Patent distinguishes Dean, however, on the basis that it does not disclose processing data from heterogeneous sources. *See* 610 Patent at 3:15-17. In contrast, Pike expressly contemplates applying its disclosed MapReduce functionality to different data groups from heterogeneous sources. Pet., 38-39. For example, as explained in the Petition, Pike discloses processing diverse sets of input data and "large collections of documents," which Dr. Lin explains a skilled artisan would understand to disclose heterogeneous data sets comprising different schemas. *See, e.g.,* Pet., 38 (citing EX1005, ¶106). The Petition also sets forth extensive arguments regarding the obviousness of the

610 Patent claims based on the disclosures in Pike alone and in combination with Chowdhuri, which also was not before the examiner. *See, e.g.*, Pet., 38-50. Patent Owner has failed to identify any similar disclosures of heterogeneous data sets in Dean or any corresponding obviousness arguments advanced during prosecution. Patent Owner's § 325(d) arguments should be rejected on this basis alone.

Patent Owner also contends that Chowdhuri is substantially similar to Burroughs and Cruanes because they all purportedly disclose tables with different schemas. POPR, 64-65. This contention is without merit. The applicant distinguished Burroughs (EX2007) during prosecution on the basis that it only disclosed processing data that has the same schema. EX1004, 184. In contrast, Chowdhuri expressly discloses performing operations on data groups having different schema, such as order and customer tables. Pet., 44-47 (citing Chowdhuri, ¶¶127, 131, 135, Figs. 3A, 3B). As for Cruanes (EX2008), the applicant attempted to overcome the examiner's 102(e) rejection by arguing that Cruanes "fails to disclose mapping data groups with different schema so as to result in different key-value pairs." EX1004, 223. When the examiner rejected that argument, the applicant amended the claims to require the claimed mapping functions to "independently output a plurality of lists of values for each set of keys," and argued that Cruanes does not "provide a plurality of mapping functions that output lists for keys found in the data partition." EX1004, 244, 259. Unlike Cruanes, Chowdhuri

is advanced as part of an obviousness combination. The amended limitation is also taught by Pike, which is materially different from any art or argument evaluated during examination. *See, e.g.,* Pet., 51.

B. The Asserted Arguments are Materially Different from the References Evaluated During Examination

Even if the references cited by R2 contained substantially the same disclosure as the asserted references in the Petition—they do not—the Petition relies on Chowdhuri in combination with Pike, whereas the prosecution history never discussed Chowdhuri or Pike at all, let alone in combination. *See St Jude Medical, LLC v. Snyders Heart Valve LLC*, IPR2018-00105, Paper 15, at 12 (PTAB May 3, 2018) (declining to denying institution under 35 U.S.C. § 325(d) because “[t]he evidence of record does not demonstrate that the Examiner considered the references in the combinations relied upon by Petitioner”). The Examiner also did not have the benefit of expert testimony regarding a skilled artisan’s understanding of the prior art, which also weighs against exercising discretion under §325(d). *See e.g., Celltrion, Inc. v. Genentech, Inc.*, IPR2017-01140, Paper 31 at 13–14 (PTAB Jan. 25, 2018) (institution when, “taking the expert declaration...into account, Petitioner’s testimonial evidence presents the prior art in a new light.”).

The Petition therefore advances prior art and arguments substantially different from those before the examiner of the 610 Patent. Accordingly, the Board should not decline institution based on Section 325(d).

Dated: August 9, 2023

Respectfully submitted,

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CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. § 42.6, the undersigned certifies that on August 9, 2023, a true and correct copy of Petitioner's Reply to Patent Owner's Preliminary Response, and all supporting exhibits, was served electronically on the following counsel of record for Patent Owner:

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