

Federal Circuit Decision Provides Additional Guidance on the Patentability of Data Manipulation Claims

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The Federal Circuit reversed a Section 101 patent ineligibility finding from the district court that claims directed to generating “check data” recited no more than mere abstract data manipulation operations such as “reordering data and generating additional data.” The Federal Circuit found the claims eligible under *Alice* step one because they were directed to a non-abstract improvement in performing error checking in data transmissions, rather than simply an abstract idea of manipulating data.

The patent at issue related to generating “check data” to determine whether data was accurately transmitted over a communications channel. The patent discussed problems with prior art check data generators, including that they did not reliably detect systematic errors that repeated across data blocks in the same way. The patent purported to solve this problem by permutating the original data (i.e., interchanging the bit position in a data block) and varying the permutation applied to different data blocks, thus reducing the chances that the same systematic error will produce the same defective check data across different data blocks. The claim at issue required a “varying device includ[ing] a permutating device configured to perform a permutation of bit position,” and further specified that “the varying device is further configured to *modify* the permutation *in time*.”

The Federal Circuit found the claim non-abstract under *Alice* step one because this further limitation that the permutation be *modified in time* is a specific implementation of varying the way check data is generated that improves the ability of prior art error detection systems to detect systematic errors. In other words, the claim recites a new way of generating check data that enables the detection of errors that prior art systems previously could not detect. The Federal Circuit emphasized that merely claiming the desired result of catching previously undetectable systematic errors would not have been enough to confer patent eligibility to the claim. Rather, it was necessary that the claim “recite a specific solution for accomplishing that goal—i.e., by varying the way check data is generated by modifying the permutation applied to different data blocks.” Thus, the Federal Circuit concluded that, by reciting this specific implementation, the claim sufficiently captured the inventors’ specific asserted technical contribution to the prior art.

[A copy of the opinion can be found here](#)

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