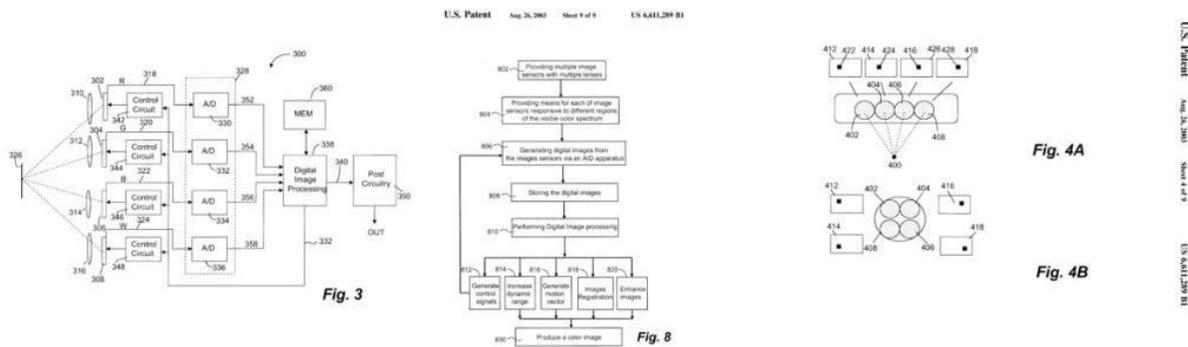


101: Extending Uncertainty to All Fields

[June 11, 2021](#) [Dennis Crouch](#)
by Dennis Crouch

It appears that we have not yet seen the most invasive nature of contemporary patent eligibility doctrine. Case in point: *Yu v. Apple Inc.* (Fed. Cir. June 11, 2021) [[Yu vs Apple](#)].



Yanbin Yu and Zhongxuan Zhang are the inventors and owners of [U.S. Patent No. 6,611,289](#) (“Digital cameras using multiple sensors with multiple lenses”). The pair sued Apple and Samsung for patent infringement, but the district court dismissed the cases for failure-to-state-a-claim. In particular, the court found the claims directed toward an abstract idea and thus invalid under 35 U.S.C. § 101. On appeal, the Federal Circuit issued a 2-1 decision affirming with Judge Prost and Taranto in the majority and Judge Newman in dissent.

The asserted claims are directed to a digital camera having multiple analog image sensors with lenses mounted on the image sensors. The claims also include analog-to-digital circuitry to digitize images from each camera so that they can be stored in memory. The claims then require creation of a “resultant digital image” based upon

images from the two different cameras. Note, the patent application was filed back in 1999; issued in 2003; and has now expired.

On appeal, the Federal Circuit affirmed that the claims at issue are merely directed to the following abstract idea:

“claim 1 is directed to the abstract idea of taking two pictures (which may be at different exposures) and using one picture to enhance the other in some way.”

The problem, according to the majority, is that claims “merely invoke generic processes and machinery.” (Quoting *Smart Sys.*) In some ways, the patent’s specification also suggests an abstraction — especially the following line: “there is a great need for a generic solution that makes digital cameras capable of producing high resolution images without enormously incurring the cost of photo-sensitive chips with multimillion photocells.” ‘289 Patent. But, I would suggest reading the specification for an understanding that this is a technological solution.

The appellate panel suggests that the specification probably does include a patent eligible invention in the form of “a four-lens, four-image-sensor [including] a black-and-white sensor.” But, the claims at issue do not require four sensors or the B/W sensor.

In dissent, Judge Newman explains:

This camera is a mechanical and electronic device of defined structure and mechanism; it is not an ‘abstract idea.’ . . . [C]laim 1 is for a digital camera having a designated structure and mechanism that perform specified functions; claim 1 is not for the general idea of enhancing camera images. The camera of the ’289 patent may or may not ultimately satisfy all the substantive requirements of patentability, for this is an active field of technology. However, that does not convert a mechanical/electronic device into an abstract idea.

Slip Op. Newman’s dissent also walks into the bigger picture of Section 101 jurisprudence:

In the current state of Section 101 jurisprudence, inconsistency and unpredictability of adjudication have destabilized technologic development in important fields of commerce. Although today's Section 101 uncertainties have arisen primarily in the biological and computer-implemented technologies, all fields are affected. The case before us enlarges this instability in all fields, for the court holds that the question of whether the components of a new device are well-known and conventional affects Section 101 eligibility, without reaching the patentability criteria of novelty and nonobviousness.

The digital camera described and claimed in the '289 patent is a mechanical/electronic device that easily fits the standard subject matter eligibility criteria. Neither the panel majority nor the district court decided patentability under Section 102 or Section 103, having eliminated the claims under Section 101. The '289 claims warrant review under the substantive criteria of patentability—a review that they have never received.

The fresh uncertainties engendered by the majority's revision of Section 101 are contrary to the statute and the weight of precedent, and contrary to the public's interest in a stable and effective patent incentive.

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1. An improved digital camera comprising:

a first and a second image sensor closely positioned with respect to a common plane, said second image sensor sensitive to a full region of visible color spectrum;

two lenses, each being mounted in front of one of said two image sensors;

said first image sensor producing a first image and said second image sensor producing a second image;

an analog-to-digital converting circuitry coupled to said first and said second image sensor and digitizing said first and said second intensity images to produce correspondingly a first digital image and a second digital image;

an image memory, coupled to said analog-to-digital converting circuitry, for storing said first digital image and said second digital image; and

a digital image processor, coupled to said image memory and receiving said first digital image and said second digital image, producing a resultant digital image from said first digital image enhanced with said second digital image.

2. The improved digital camera as recited in claim 1, wherein said first image sensor sensitive to said full region of visible color spectrum.

4. The improved digital camera as recited in claim 1, wherein said analog-to-digital converting circuitry comprises two individual analog-to-digital converters, each integrated with one of said first and second image sensors so that said first and second digital images are digitized independently and in parallel to increase signal throughput rate.