

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

PELOTON INTERACTIVE, INC.,

Plaintiff and
Counter-Defendant,

v.

ICON HEALTH & FITNESS, INC.,

Defendant and
Counterclaimant.


Civil Action No. 20-662-RGA

MEMORANDUM OPINION

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September 10, 2021


ANDREWS, U.S. DISTRICT JUDGE:

Before me is a claim construction dispute concerning U.S. Patent No. 6,601,016 (the ‘016 Patent) and U.S. Patent No. 7,556,590 (the ‘590 Patent). The parties submitted a Joint Claim Construction Brief (D.I. 113) and the Court held a Markman Hearing on June 25, 2021. (D.I. 126). Following the hearing, the parties submitted supplemental letters to the Court concerning several terms. (D.I. 130; D.I. 131). As many terms were resolved by agreement of the parties or at the hearing (*see* D.I. 124; D.I. 126 at 11:1-12), this opinion addresses only the remaining terms: XML, mark-up language, translator device, and the four “means of comparing” claims.

I. BACKGROUND

The asserted patents generally disclose methods of monitoring fitness activity and facilitating communication between exercise devices and computers. (‘590 Patent 1:40-49; ‘016 Patent 1:20-31). Per the parties’ briefing, the following claims are representative:

‘016 Patent, Claim 49:

49. A method for competing against a plurality of exercisers, said method comprising the steps of:
receiving current fitness activity for a first exerciser exercising on a first exercise machine in a particular *mark-up language* format at an exercise machine monitor for monitoring exercise performed by a second exerciser on a second exercise machine, wherein said current fitness activity is received at said exercise machine monitor from a universally accessible server system, wherein said current fitness activity for a first exerciser is identified by a universal identifier associated with said first exerciser; and displaying a graphical comparison of said current fitness activity for said first exerciser with current fitness activity for said second exerciser from an output interface controlled by said exercise machine monitor, such that said second exerciser is enabled compete against a plurality of exercisers.

‘590 Patent Claim 1:

1. A system configured to enable a plurality of users to compete in a virtual race, the system comprising:
a first exercise device communicatively connected to a first computer device, the first exercise device being adapted to communicate using an exercise communication protocol and the first computer device being adapted to communicate using a

computer communication protocol, the exercise communication protocol and the computer communication protocol being different types of communication protocols, wherein the first computer device is configured to monitor use of the first exercise device relative to a first start time, and wherein the communication of the first exercise device and the first computer device is facilitated by a first *translator device* adapted to translate data between the exercise communication protocol and the computer communication protocol;

a second exercise device communicatively connected to a second computer device, the second exercise device being adapted to communicate using the exercise communication protocol and the second computer device being adapted to communicate using the computer communication protocol, wherein the second computer device is configured to monitor use of the second exercise device relative to a second start time, and wherein the communication of the second exercise device and the second computer device is facilitated by a second *translator device* adapted to translate data between the exercise communication protocol and the computer communication protocol;

means for comparing the use of the first exercise device relative to the first start time with the use of the second exercise device relative to the second start time; and

means for providing communication between the first computer device, the second computer device and the comparing means.

II. LEGAL STANDARD

“It is a bedrock principle of patent law that the claims of a patent define the invention to which the patentee is entitled the right to exclude.” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc) (internal quotation marks omitted). “[T]here is no magic formula or catechism for conducting claim construction.’ Instead, the court is free to attach the appropriate weight to appropriate sources ‘in light of the statutes and policies that inform patent law.’” *SoftView LLC v. Apple Inc.*, 2013 WL 4758195, at *1 (D. Del. Sept. 4, 2013) (quoting *Phillips*, 415 F.3d at 1324) (alteration in original). When construing patent claims, a court considers the literal language of the claim, the patent specification, and the prosecution history. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 977–80 (Fed. Cir. 1995) (en banc), *aff’d*, 517 U.S. 370 (1996). Of these sources, “the specification is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.” *Phillips*, 415 F.3d at 1315 (internal quotation marks omitted).

“[T]he words of a claim are generally given their ordinary and customary meaning. . . . [Which is] the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application.” *Id.* at 1312–13 (citations and internal quotation marks omitted). “[T]he ordinary meaning of a claim term is its meaning to [an] ordinary artisan after reading the entire patent.” *Id.* at 1321 (internal quotation marks omitted). “In some cases, the ordinary meaning of claim language as understood by a person of skill in the art may be readily apparent even to lay judges, and claim construction in such cases involves little more than the application of the widely accepted meaning of commonly understood words.” *Id.* at 1314.

When a court relies solely upon the intrinsic evidence—the patent claims, the specification, and the prosecution history—the court’s construction is a determination of law. *See Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 574 U.S. 318, 331 (2015). The court may also make factual findings based upon consideration of extrinsic evidence, which “consists of all evidence external to the patent and prosecution history, including expert and inventor testimony, dictionaries, and learned treatises.” *Phillips*, 415 F.3d at 1317–19 (internal quotation marks omitted). Extrinsic evidence may assist the court in understanding the underlying technology, the meaning of terms to one skilled in the art, and how the invention works. *Id.* Extrinsic evidence, however, is less reliable and less useful in claim construction than the patent and its prosecution history. *Id.*

“A claim construction is persuasive, not because it follows a certain rule, but because it defines terms in the context of the whole patent.” *Renishaw PLC v. Marposs Societa’ per Azioni*, 158 F.3d 1243, 1250 (Fed. Cir. 1998). It follows that “a claim interpretation that would

exclude the inventor's device is rarely the correct interpretation." *Osram GMBH v. Int'l Trade Comm'n*, 505 F.3d 1351, 1358 (Fed. Cir. 2007) (citation and internal quotation marks omitted).

III. CONSTRUCTION OF DISPUTED TERMS

A. "Extensible mark-up language" ('016 Patent claims 2, 18, 34)

- a. *Peloton's proposed construction*: Plain meaning, i.e., XML. Otherwise, indefinite.
- b. *ICON's proposed construction*: a markup language that accommodates additions, for example, designed-defined tags.
- c. *Court's pre-Markman proposed construction*: XML.
- d. *Court's construction*: XML.

ICON disagreed with the Court's proposed construction but did not seek further argument. (D.I. 124 at 1). As such, I will adopt the Court's proposed construction of "XML" which I believe accords with the plain meaning of the term.

B. "Mark-up language" ('016 Patent claims 1, 2, 17, 18, 33, 34, 49, 53)

- a. *Peloton's proposed construction*: XML or other computer language that describes how to perform actions such as displaying and printing a text document in a device-independent way through the use of corresponding textual tags. Otherwise, indefinite.
- b. *Peloton's amended proposed construction*: A computer language that identifies data with tags around text consisting of angle bracket delimiters and tag names.
- c. *ICON's proposed construction*: a data transmission protocol that identifies data with tags.
- d. *ICON's amended proposed construction*: a data structure format that identifies data with tags.

e. *Court's pre-Markman proposed construction*: A computer language that identifies data with tags.

f. *Court's construction*: A computer language that identifies data with tags.

At oral argument, the parties focused solely on the use of the word “tag” in the Court’s proposal. Peloton requested an amendment to the Court’s proposed construction that further defined “tag” as “consisting of angle bracket delimiters and tag names.” (D.I. 126 at 9:7-11). Following argument on this topic, the Court invited the parties to submit a letter supplying technical dictionaries or other relevant extrinsic evidence on the definition of “tag” in the context of a mark-up language. (*Id.* at 22:22-24:6).

Upon review of the extrinsic evidence, I do not think it is appropriate to add Peloton’s proposed additional language to “tag.” The parties submitted numerous relevant sources, but I do not see one that required a tag to consist of delimiters on both sides of the text or that the delimiters needed to be angle brackets. For example, several of Peloton’s cited definitions were limited to HTML, a specific mark-up language. (D.I. 131-1, at Ex. 3, Ex. 4, Ex. 6, Ex. 10). Others introduce a broad definition and typically use HTML as an example. (*See, e.g., id.* at Ex. 1). One such definition is reproduced below:

tag *n.* 1. In programming, one or more characters containing information about a file, record type, or other structure. 2. In certain types of data files, a key or an address that identifies a record and its storage location in another file. [] 3. In markup languages such as SGML and HTML, a code that identifies an element in a document, such as a heading or a paragraph, for the purposes of formatting, indexing, and linking information in the document. In both SGML and HTML, a tag is generally a pair of angle brackets that contain one or more letters and numbers. Usually one pair of angle brackets is placed before an element, and another pair is placed after, to indicate where the element begins and ends. For example, in HTML, `<I>hello world</I>` indicates that the phrase “hello world” should be italicized.

(*Id.* (citing MICROSOFT COMPUTER DICTIONARY 435 (4th ed. 1999)).

Other definitions contemplate both “single and compound tags.” But a “single tag” would conflict with Peloton’s proposed requirement that tags be “around text” (thus, always requiring a compound tag).¹ (*Id.* at Ex. 3 (describing single and compound tags in the context of HTML)). While I do not doubt that Peloton’s proposed definition describes a common form of a markup language, the proffered definitions do not support limiting the disputed term to this form alone. Thus, I will adopt the Court’s initial proposed construction, without a further limitation on “tag.”

C. “Translator Device[s]” (‘590 Patent claims 1, 13)

- a. *Peloton’s proposed construction*: **Function (Claim 1)**: translating data between the exercise communication protocol and the computer communication protocol; **Function (Claim 13)**: the function of claim 1, and also “communicatively coupling the first and second exercise devices to the means for comparing so as to facilitate communication of data representative of the performance of each of the plurality of users between the first and second exercise devices and the means for comparing;” **Structure**: indefinite.
- b. *ICON’s proposed construction*: a device or structure configured to translate and exchange data between different data formats.
- c. *Court’s construction*: Indefinite.

The parties dispute whether 35 U.S.C. § 112(6) applies to “translator device.” ICON asserts that Peloton cannot overcome the presumption that § 112(6) does not apply where the term does not recite “means” because the specification discloses a definite structure. (D.I. 113 at

¹ Peloton’s letter offers a modification on its proposed construction to “clarify that markup languages provide for corresponding textual tags (compound tags) – but may also support certain pre-defined single tags.” (D.I. 131 at 3). The modified proposal is “a computer language that *provides for* identifying data with tags around text consisting of angle bracket delimiters and tag names.” (*Id.*).

69). Peloton argues that ICON, because it relies on the specification to provide structure, has conceded that § 112(6) applies. (*Id.* at 73).

Williamson v. Citrix Online, LLC provides the relevant standard. 792 F.3d 1339 (Fed. Cir. 2015). In *Williamson*, the Federal Circuit explained that the appropriate inquiry “is not merely the presence or absence of the word ‘means’ but whether the words of the claim are understood by persons of ordinary skill in the art to have a sufficiently definite meaning as the name for structure.” *Id.* at 1348 (en banc). When deciding if the claims had a sufficiently definite meaning, the Court considered whether anything in the written description and prosecution history “might lead us to construe that expression as the name of a sufficiently definite structure as to take the overall claim limitation out of the ambit of § 112.” *Id.* at 1351.

Claim 1 recites, “a [] translator device adapted to translate data between the exercise communication protocol and the computer communication protocol.” ‘590 Patent 30:33-36. Similarly, claim 13 describes, “translator devices are configured to communicatively couple the first and second exercise devices to the means for comparing so as to facilitate communication of data representative of the performance of each of the plurality of users between the first and second exercise devices and the means for comparing.” ‘590 Patent 32:5-11 & Certificate of Correction.

The claim language is functional. “Device,” a classic nonce word, does not provide any indication of structure. *Mass. Ins. of Tech. & Elecs. For Imaging, Inc. v. Abacus Software*, 462 F.3d 1344, 1354 (Fed. Cir. 2006) (“The generic terms ‘mechanism,’ ‘means,’ ‘element,’ and ‘device,’ typically do not connote sufficiently definite structure.”). Nor does “translator,” as it merely describes the function of the device. ICON’s briefing does not argue that “translator device” is a term of art or connotes a structure known to a POSA. At the Markman Hearing,

ICON did state that a POSA would know that a “translator device” is a “piece of hardware that translates from one communication protocol to the next,” but ICON’s expert does not appear to offer a statement to that effect. (D.I. 126 at 55:24-56:4). While the specification does frequently refer to a “translator device,” it does not suggest that the term has a defined structure. *See, e.g.*, ‘590 Patent 14:22-33 (“Those skilled in the art will appreciate that computer device **14** and/or translator device **13** may take a variety of configurations, including personal computers, hand-held devices, multi-processor systems, microprocessor-based or programmable consumer electronics, telephones, network PCs, mini-computers, mainframe computers, and the like.”).

Applying *Williamson*, I agree that the term is properly subject to § 112(6). ICON’s briefing urges the court to conflate the initial *Williamson* analysis with the subsequent application of § 112(6) and find that the specification discloses a sufficient structure. (D.I. 113 at 68-70). The Federal Circuit, however, has cautioned against this, explaining, “That the specification discloses a structure corresponding to an asserted means-plus-function claim term does not necessarily mean that the claim term is understood by persons of ordinary skill in the art to connote a specific structure or a class of structures.” *MTD Prods. Inc. v. Iancu*, 933 F.3d 1336, 1344 (Fed. Cir. 2019). Thus, I will proceed to the § 112(6) analysis.

The first step in construing a means-plus-function term is to identify the claimed function. *Noah Sys., Inc. v. Intuit Inc.*, 675 F.3d 1302, 1311 (Fed. Cir. 2012). Peloton proposes functions for claim 1 and claim 13 (given above) and ICON has not disputed them.

Next, the Court must “identify corresponding structure in the written description of the patent that performs the function.” *Id.* ICON’s briefing does touch on structure in the context of its arguments under *Williamson*, but the briefing does not address the presence of an algorithm. (D.I. 113 at 68-69). Figure 8 in the ‘590 Patent depicts the “translator device” as consisting of

two interfaces, a microcontroller, an inverter, and a converter. Additionally, the specification states that “the translation is performed by microcontroller 164.” ‘590 Patent 16:26-27. Where the disclosed structure is a computer or microprocessor, the specification must additionally specify an algorithm. *Net MoneyIN, Inc. v. VeriSign, Inc.*, 545 F.3d 1359, 1367 (Fed. Cir. 2008) (explaining that “in a means-plus-function claim in which the disclosed structure is a computer, or microprocessor, programmed to carry out an algorithm, the disclosed structure is not the general purpose computer, but rather the special purpose computer programmed to perform the disclosed algorithm”) (quoting *Aristocrat Techs. Austral. Pty. Ltd. v. Int’l Game Tech.*, 521 F.3d 1328, 1333 (Fed. Cir. 2008) (internal quotation omitted)).

Peloton raised the absence of an algorithm in its briefs and ICON did not dispute it or attempt to identify an algorithm. Thus, I find that the term “translator device” is indefinite.

D. “Means for Comparing” (‘590 Patent claims 1, 13, 14, 17)²

- a. *Peloton’s proposed construction (Claim 1):* **Function:** comparing the use of the first exercise device relative to the first start time with the use of the second exercise device relative to the second start time” **Structure:** indefinite.
- b. *ICON’s proposed construction (Claim 1):* **Function:** agreed. **Structure:** a remote system, such as³ Server (216), Communication System (18), and/or Remote computer (148) that can be accessed via a network connection such as that disclosed at (16), (150), (154), or (210); one or more Computer Devices (212a-n),

² The proposed constructions reproduced below reflect the contents of the Joint Claim Construction Brief. (D.I. 113). ICON later clarified its position on algorithmic disclosure. (*See* D.I. 123).

³ I have doubts about the “such as” language ICON proposes for each of the constructions, but the parties have not raised any concerns about it.

one or more Translator Devices⁴ (220a-n), and/or Exercise Devices (222a-n) that can access/communicate with the remote system via the network connection.

- c. *Peloton's proposed construction (Claim 13)*: **Function**: the function of the means for comparing claim 1, and “comparing the performance of each of the plurality of users and notify one of the plurality of users of the performance of another of the plurality of users.” **Structure**: indefinite.
- d. *ICON's proposed construction (Claim 13)*: **Function**: agreed. **Structure**: a remote system, such as Server (216), Communication System (18), and/or Remote computer (148) that can be accessed via a network connection such as that disclosed at (16), (150), (154), or (210); one or more Computer Devices (212a-n), one or more Translator Devices (220a-n), and/or Exercise Devices (222a-n) that can access/communicate with the remote system via the network connection.
- e. *Peloton's proposed construction (Claim 14)*: **Function**: the function of the means for comparing claims 1 and 13, and “comparing the performance of each of the plurality of users based on an order in which each of the plurality of users completed the virtual race.” **Structure**: indefinite.
- f. *ICON's proposed construction (Claim 14)*: **Function**: agreed. **Structure**: a remote system, such as Server (216), Communication System (18), and/or Remote computer (148) that can be accessed via a network connection such as that disclosed at (16), (150), (154), or (210); one or more Computer Devices (212a-n),

⁴ The parties do not raise issues about “translator devices” in connection with the disputes about these terms.

one or more Translator Devices (220a-n), and/or Exercise Devices (222a-n) that can access/communicate with the remote system via the network connection.

- g. *Peloton's proposed construction (Claim 17)*: **Function**: the function of the means for comparing of claims 1 and 13, and “notifying each of the plurality of users of a winner of the virtual race subsequent to the end of the virtual race.” **Structure**: indefinite.
- h. *ICON's proposed construction (Claim 17)*: **Function**: agreed. **Structure**: a remote system, such as Server (216), Communication System (18), and/or Remote computer (148) that can be accessed via a network connection such as that disclosed at (16), (150), (154), or (210); one or more Computer Devices (212a-n), one or more Translator Devices (220a-n), and/or Exercise Devices (222a-n) that can access/communicate with the remote system via the network connection.
- i. *Court's construction (Claim 1)*: **Function**: agreed. **Physical structure**: a remote system, such as Server (216), Communication System (18), and/or Remote computer (148) that can be accessed via a network connection such as that disclosed at (16), (150), (154), or (210); one or more Computer Devices (212a-n), one or more Translator Devices (220a-n), and/or Exercise Devices (222a-n) that can access/communicate with the remote system via the network connection.
- Algorithmic Structure**: Figure 11 and the corresponding specification disclosure of step 242 to step 256, Figure 12 and the corresponding specification disclosure of step 270 to step 282.
- j. *Court's Construction (Claim 13)*: **Function**: agreed. **Physical Structure**: a remote system, such as Server (216), Communication System (18), and/or Remote

computer (148) that can be accessed via a network connection such as that disclosed at (16), (150), (154), or (210); one or more Computer Devices (212a-n), one or more Translator Devices (220a-n), and/or Exercise Devices (222a-n) that can access/communicate with the remote system via the network connection.

Algorithmic Structure: Figure 11 and the corresponding specification disclosure of step 242 to step 256, Figure 12 and the corresponding specification disclosure of step 270 to step 282.

- k. *Court's Construction (Claim 14):* **Function:** agreed. **Physical Structure:** a remote system, such as Server (216), Communication System (18), and/or Remote computer (148) that can be accessed via a network connection such as that disclosed at (16), (150), (154), or (210); one or more Computer Devices (212a-n), one or more Translator Devices (220a-n), and/or Exercise Devices (222a-n) that can access/communicate with the remote system via the network connection.

Algorithmic Structure: Figure 11 and the corresponding specification disclosure of step 242 to step 256, Figure 12 and the corresponding specification disclosure of step 270 to step 282.

- l. *Court's Construction (Claim 17):* **Function:** agreed. **Physical Structure:** a remote system, such as Server (216), Communication System (18), and/or Remote computer (148) that can be accessed via a network connection such as that disclosed at (16), (150), (154), or (210); one or more Computer Devices (212a-n), one or more Translator Devices (220a-n), and/or Exercise Devices (222a-n) that can access/communicate with the remote system via the network connection.

Algorithmic Structure: Figure 11 and the corresponding specification disclosure

of step 242 to step 256, Figure 12 and the corresponding specification disclosure of step 270 to step 282.

With respect to all the “means for comparing” claims, the parties contest the limitations of the algorithmic disclosure identified by ICON. (*See* D.I. 126 at 89:1-16). The primary dispute is whether ICON’s algorithmic disclosure must be limited by the language in Figures 11 and 12. (*See id.* at 92:2-12).⁵ ICON seeks to amend the language in the flow chart to include the term “competition” in addition to race, and to substitute the term “parameter of choice” instead of “user position.” (*See* D.I. 123).

Following the hearing, the parties submitted letters to the Court identifying support for the theory that ICON may expand the algorithmic disclosure via embodiments contained in the specification. (D.I. 130, D.I. 131). ICON submitted *AllVoice Computing PLC v. Nuance Commc’ns, Inc.*, 504 F.3d 1236 (Fed. Cir. 2007) for the proposition that algorithms may be read broadly. (D.I. 130 at 6). However, *All Voice* involved a dispute on the sufficiency of the algorithm. *All Voice*, 504 F.3d at 1245-46. After considering an expert declaration which explained that there were “several straightforward ways that the algorithm represented in Figure 8A could be implemented by one skilled in the art using well-known features,” the Court agreed the disclosure was sufficient. *Id.* The fact that many software techniques known to a POSA may be used to implement the algorithm does not support ICON’s argument that the algorithm itself may be amended.

On this point, *Aristocrat Techs. Austl. Pty. Ltd. v. Int’l Game Tech.*, 521 F.3d 1328 (Fed. Cir. 2008) is instructive. In *Aristocrat*, plaintiff argued that ““the written description delineates

⁵ Peloton also argued that ICON’s disclosure was insufficient. (*See* D.I. 113 at 74-79, 81-87). However, Peloton only cites to conclusory assertions from its expert that the Patent does not disclose an algorithm (*See, e.g.*, D.I. 114-3 at APPX370, APPX373, APPX376, APPX378).

what constitutes [the asserted disclosure of structure] through the disclosed embodiments of the invention.” *Id.* at 1334. The Court rejected plaintiff’s argument, explaining “the description of the embodiments is simply a description of the outcome of the claimed functions, not a description of the structure.” *Id.* at 1334-35. Additionally, the Federal Circuit has declined to expand structural disclosure where the specification states that alternative structures or forms may be used, without additional disclosure of those structures. *See Fonar Corp. v. Gen. Elec. Co.*, 107 F.3d 1543, 1551-52 (Fed. Cir. 1997) (limiting a claim to “generic gradient wave form” and equivalents where the patent “states that other wave forms may be used” but “fails to specifically identify those wave forms”); *see also Dragon Intellectual Prop., LLC v. Apple, Inc.*, 2015 WL 5298938, at *5 (D. Del. Sept. 9, 2015) (limiting the disputed structure to “AC power source” because, while “DC power sources and batteries are disclosed in the patent, they are not linked to the function at issue”).

I do not think it is proper to amend the algorithmic disclosure in order to expand its scope. I will adopt Peloton’s proposed algorithmic disclosure for the “means of comparing” claims, which relies on the language used in the specification.

IV. CONCLUSION

Within five days the parties shall submit a proposed order consistent with this Memorandum Opinion.