

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE**

INTERNATIONAL BUSINESS MACHINES
CORP.,

Plaintiff,

v.

ZYNGA INC., and CHARTBOOST, INC.,

Defendants.

Civil Action No. 22-590-GBW

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MEMORANDUM OPINION

October 30, 2023
Wilmington, Delaware

GREGORY B. WILLIAMS
UNITED STATES DISTRICT JUDGE

Pending before the Court is the issue of claim construction of multiple terms in the following patents: U.S. Patent Nos. 7,072,849 ('849 Patent), 7,631,346 ('346 Patent) and 7,702,719 ('719 Patent). Plaintiff International Business Machines Corporation ("IBM") asserts these patents against Defendants Zynga, Inc. and Chartboost, Inc. (together, "Zynga").

The Court has considered the parties' Joint Claim Construction Brief and the accompanying appendix. D.I. 125; D.I. 126. The Court held a claim construction hearing on September 26, 2023 ("Tr. [#]").

I. LEGAL STANDARDS

"[T]he 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) (citation omitted); *Aventis Pharms. Inc. v. Amino Chemicals Ltd.*, 715 F.3d 1363, 1373 (Fed. Cir. 2013) (same). "[T]here is no magic formula or catechism for conducting claim construction." *Phillips*, 415 F.3d at 1324. The Court is free to attach the appropriate weight to appropriate sources "in light of the statutes and policies that inform patent law." *Id.* The ultimate question of the proper construction of a patent is a question of law, although "subsidiary factfinding is sometimes necessary." *Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 574 U.S. 318, 326–27 (2015); see *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 372 (1996) ("the construction of a patent . . . is exclusively within the province of the court.").

"The words of a claim are generally given their ordinary and customary meaning as understood by a person of ordinary skill in the art when read in the context of the specification and prosecution history." *Thorner v. Sony Comput. Entm't Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir.

2012) (citing *Phillips*, 415 F.3d at 1313); *Unwired Planet, LLC v. Apple Inc.*, 829 F.3d 1353, 1358 (Fed. Cir. 2016) (similar). The “only two exceptions to this general rule” are (1) when a patentee defines a term or (2) disavowal of “the full scope of a claim term either in the specification or during prosecution.” *Thorner*, 669 F.3d at 1365 (citation omitted).

The Court “first look[s] to, and primarily rel[ies] on, the intrinsic evidence,” which includes the claims, written description, and prosecution history and “is usually dispositive.” *Personalized Media Commc’ns, LLC v. Apple Inc.*, 952 F.3d 1336, 1340 (Fed. Cir. 2020) (citation omitted). “[T]he specification ‘ . . . is the single best guide to the meaning of a disputed term.’” *Akzo Nobel Coatings, Inc. v. Dow Chem. Co.*, 811 F.3d 1334, 1340 (Fed. Cir. 2016) (citation omitted). “[T]he specification may reveal a special definition given to a claim term by the patentee that differs from the meaning it would otherwise possess.’ When the patentee acts as its own lexicographer, that definition governs.” *Cont’l Cirs. LLC v. Intel Corp.*, 915 F.3d 788, 796 (Fed. Cir. 2019) (quoting *Phillips*, 415 F.3d at 1316). However, “[the Court] do[es] not read limitations from the embodiments in the specification into the claims.” *MasterMine Software, Inc. v. Microsoft Corp.*, 874 F.3d 1307, 1310 (Fed. Cir. 2017) (citation omitted)). The “written description . . . is not a substitute for, nor can it be used to rewrite, the chosen claim language.” *SuperGuide Corp. v. DirecTV Enters., Inc.*, 358 F.3d 870, 875 (Fed. Cir. 2004).

The Court “should also consider the patent’s prosecution history, if it is in evidence.” *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 980 (Fed. Cir. 1995), *aff’d*, 517 U.S. 370; *Cont’l Cirs.*, 915 F.3d at 796 (same). The prosecution history may “demonstrat[e] how the inventor understood the invention and whether the inventor limited the invention in the course of prosecution” *SpeedTrack, Inc. v. Amazon.com*, 998 F.3d 1373, 1377 (Fed. Cir. 2021) (quoting *Phillips*, 415 F.3d at 1317).

The Court may “need to look beyond the patent’s intrinsic evidence and to consult extrinsic evidence in order to understand, for example, the background science or the meaning of a term in the relevant art during the relevant time period.” *Teva*, 574 U.S. at 331. “Extrinsic evidence consists of all evidence external to the patent and prosecution history, including expert and inventor testimony, dictionaries, and learned treatises.” *Markman*, 52 F.3d at 980; *Phillips*, 415 F.3d at 1317 (same). Extrinsic evidence may be useful, but it is “less significant than the intrinsic record in determining the legally operative meaning of claim language.” *Cont’l Cirs.*, 915 F.3d at 799 (internal quotation marks and citations omitted). However, “[p]atent documents are written for persons familiar with the relevant field Thus resolution of any ambiguity arising from the claims and specification may be aided by extrinsic evidence of usage and meaning of a term in the context of the invention.” *Verve, LLC v. Crane Cams, Inc.*, 311 F.3d 1116, 1119 (Fed. Cir. 2002); *see Nautilus, Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898, 899 (2014) (explaining that patents are addressed “to those skilled in the relevant art”).

II. AGREED-UPON TERMS

The parties agreed upon the construction of the following claim terms (D.I. 125 at 1-2):

A. The '849 Patent

Claim No.	Claim Term	Agreed-Upon Construction
Claims 1, 8, 13, 14, 21	preamble	limiting
Claims 1, 13, 14	Structuring [the] advertising in a manner compatible to that of the applications so that [it/advertising] may be presented	formatting [the] advertising for potential use with a plurality of applications

B. The '346 Patent

Claim No.	Claim Term	Agreed-Upon Construction
1	Preamble	limiting
1	Protected Resource(s)	an application, an object, a document, a page, a file, executable code, or other computational resource, communication-type resource, etc., identified by a Uniform Resource Locator (URL), or more generally, a Uniform Resource Identifier (URI), that can only be accessed by an authenticated and/or authorized user
1	Federated computing environment	an environment having a loosely coupled affiliation of a plurality of distinct enterprises that adhere to certain standards of interoperability; the federation provides a mechanism for trust among those enterprises with respect to certain computational operations for the users within the federation

C. The '719 Patent

Claim No.	Claim Term	Agreed-Upon Construction
1, 12, 26	View generating . . . logic associated with the application	program code that generates a screen or window representation of a subset of the model that the application chooses to display
1, 12, 26	Controller logic associated with the application	program code that processes user requests and causes the model to be changed and/or the view to be refreshed

The Court will adopt these agreed-upon constructions.

III. DISPUTED TERMS OF THE '849 PATENT

A. “selectively storing advertising objects at a store established at the reception system”

Disputed Term	Plaintiff IBM's Construction	Defendants Zynga's Construction	Court's Construction
selectively storing advertising objects at a store established at the reception system (the '849 patent, claims 1, 13, 14)	storing advertising objects according to a predetermined storage criterion at a store established at the reception system	pre-fetching advertising objects that are not a part of the applications requested by the user and storing them at a store established at the reception system in anticipation of display concurrently with the applications	pre-fetching advertising objects and storing them at a store established at the reception system in anticipation of display concurrently with the applications

The parties dispute whether “storing” requires pre-fetching.

This Court has previously construed this very term to mean “retrieving (i.e., pre-fetching) advertising objects and storing at a store established at the reception system in anticipation of display concurrently with the applications.” *Int'l Bus. Machines Corp. v. Rakuten, Inc.*, 2023 WL 3750906, at *2–3 (D. Del. June 1, 2023). In doing so, it considered and rejected the same arguments raised by IBM here. This Court recognized in *Rakuten* that its construction was in line with the “nearly identical” construction of three other courts to consider the term. *Id.* at *3. Seeing no new intrinsic evidence or arguments from IBM, this Court sees no reason to disturb its prior construction or the constructions of other courts, and again finds that “storing” in the context of the '849 Patent requires pre-fetching.

The parties also dispute whether the advertising objects can be part of the applications requested by the user. While Zynga maintains that applications and advertising are described as separate in the specification, IBM argues that Zynga has ignored language pointing to their similarities. The Court finds that Zynga has not demonstrated the disclaimer or re-definition

necessary to import a negative limitation into the language of the claim. *See Ethicon LLC v. Intuitive Surgical, Inc.*, 2021 WL 960766, at *5 (Fed. Cir. Mar. 15, 2021).

Zynga cites portions of the specification that discuss minimizing interference with the retrieval and presentation of application data. *See* '849 patent, 1:16-28, 2:54-62. These portions of the specification do not clearly separate application and advertising data—it is possible that presenting advertising as part of the application could minimize interference between the supply of applications and advertising. Indeed, the specification describes an embodiment where an application includes an “Ad partition,” indicating that ads may appear as a portion of the application. '849 patent, 9:35-41.

The statements made during prosecution of the application that “applications and advertising are different” or “separate entities” does not indicate that advertising may not be part of the application. *See* D.I. 98-6 (“Ex. A-2, Part 4”) (2/25/2005 IBM Reply Br.), p. 193; D.I. 98-6 (“Ex. A-2, Part 3”) (10/1/2004 IBM Appeal Br.), p. 101-102. Instead, this language merely indicates that the claims, unlike the prior art, require advertising objects, not just application objects. *Id.* IBM’s statements during prosecution history do not rise to the level of “clear and unmistakable” disclaimer. *Omega En’g, Inc. v. Raytek Corp.*, 334 F.3d 1314, 1325-26 (Fed. Cir. 2003).¹

Accordingly, the Court construes “selectively storing advertising objects at a store established at the reception system” to mean “pre-fetching advertising objects and storing them at

¹ The clearest statement in the prosecution history supporting Zynga’s construction comes from a statement by the Patent Office. *See* Ex. A-2, Part 4 (12/23/2005 Appeal Order), 213-214. Statements by the Patent Office do not constitute disclaimer by the applicant. *Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1124 (Fed. Cir. 2004).

a store established at the reception system in anticipation of display concurrently with the applications.”

B. “user reception system”/“user reception systems including a monitor”

Disputed Term	Plaintiff IBM’s Construction	Defendants Zynga’s Construction	Court’s Construction
User reception system Claims 1, 8, 13, 14, 21	a personal computer or other smart user terminal	a personal computer or other user terminal	A personal computer or other smart user terminal
user reception systems including a monitor	a personal computer or other smart user terminal including a monitor	a personal computer or other user terminal comprising or connected to a monitor with at least one screen	A personal computer or other smart user terminal including a monitor

The parties dispute (i) whether a “user reception system” must be a smart system, and (ii) whether the term “including a monitor” requires construction from the Court. D.I. 125 at 10-17.

On the first dispute, the Court agrees with IBM that the term “user reception system” is limited to a “smart” terminal. In fact, the specification of the ’849 Patent consistently distinguishes the invention from the prior art by requiring terminals to have their own processing and storage capabilities. *See, e.g.*, ’849 patent, 10:41-45 (“[I]n conventional time-sharing computer networks, the data and program instructions necessary to support user sessions are maintained at a central host computer”); 3:16-18 (“[T]he user reception system...includes facility for storing and managing the advertising.”), 7:4-6 (“much of the application processing formerly done by a host computer...is now performed at the user’s [reception system].”). Further, the Court finds no evidence that the ’849 Patent references a system with storage capabilities as an embodiment of the invention. Rather, the Court believes that the system’s ability to store data is critical to its goal of performing data processing, reducing bottlenecks, and avoiding traffic conflicts. While Zynga

raises the latter two benefits as support for their construction, the Court agrees with IBM that even those benefits highlighted by Zynga result because the invention utilizes a system that is smart. Additionally, the Court agrees that IBM disclaimed dumb terminals during prosecution. In fact, IBM explained that “[e]xisting network-based interactive services employed ‘dumb terminals’ that relied exclusively on centralized host servers’ processing and storage resources for presenting applications and advertising. . . . To solve the bottleneck problem, the inventors developed a novel approach to network-based interactive services that would take advantage of the storage capacity and computing power of each user’s personal computer.” Ex. A-2 Part 4 at 654-55.

Finally, the Court rejects Zynga’s argument that IBM’s construction is inconsistent with U.S. Patent No. 5,347,632 (the parent of the ’849 patent), which claims “reception system computers” with “object processing means.” ’632 patent, claims 1, 29. If, Zynga argues, reception systems are synonymous to computers, then “reception system computers” would mean “computer computers” and “object processing means” would refer to “computers with processing means.” Zynga argues these definitions are redundant. The Court disagrees. If anything, it is consistent with the definition of reception system as a smart terminal with computing power and processing means, as described by the ’632 patent. Furthermore, IBM’s proposed construction indicates a lack of redundancy because it mentions that there can be smart terminals other than a computer.

Given the above, the Court construes “user reception systems” as “a personal computer or other smart user terminal.”

With respect to the second dispute, the Court finds that the term “monitor” requires no construction. The Court agrees with IBM that a jury will readily understand the term “monitor,” and will know from the face of the patent that a monitor includes a screen. And while Zynga notes that “[r]esolving this question is important because IBM accuses various Zynga mobile-only

games of infringement,” this Court cannot construe claims with reference to an accused device by “excluding or including specific features of the accused device.” *Wilson Sporting Goods Co. v. Hillerich & Bradsby Co.*, 442 F.3d 1322, 1331 (Fed. Cir. 2006). Finally, both parties seem to agree that there is no difference in claim scope between the two proposals. D.I. 125 at 11 (“IBM does not believe that there is a difference in claim scope”); *id.* at 17 (“the parties apparently agree that screens and monitors are different and that monitors must include screens.”). As there is no dispute between the parties regarding the scope of the term “monitor,” the Court sees no reason to interject words to describe a term that has a clear meaning. It is well settled that a court may decline to construe a term that does not depart from its ordinary meaning. *Chef America, Inc. v. Lamb-Weston, Inc.*, 358 F.3d 1371 (Fed. Cir. 2001). Here, the term “monitor” requires no construction.

C. presented . . . at a second portion of one or more screens of display concurrently with [user requested] applications

Disputed Term	Plaintiff IBM’s Construction	Defendants Zynga’s Construction	Court’s Construction
Presented . . . at a second portion of one or more screens of display concurrently with [user requested] applications Claims 1, 13, 14	presented . . . at a second area of one or more screens of display concurrently with applications	presented at a second portion of the one or more screens that does not overlap with the first portion without interrupting or delaying the presentation of the application	presented . . . at a second area of one or more screens of display concurrently with applications

The parties dispute whether the advertising portion can overlap or interrupt with the application portion. For the following reasons, the Court finds that it can.

While Zynga argues that the advertising portion may not overlap with the application portion, this Court has previously considered and rejected similar arguments in *IBM v. Groupon*, 2017 WL 3310688, at *4 (D. Del. Aug. 3, 2017). In that case, the court construed the term “at a

second portion of one or more screens of display concurrently with applications” and held that the ’849 patent’s specification and prosecution history “do not support construing partition² as a fixed, non-overlapping portion of the screen display.” *IBM v. Groupon*, 2017 WL 3310688, at *4 (D. Del. Aug. 3, 2017). This Court agrees. Zynga’s proposed construction would read out an embodiment of the ’849 patent: the specification describes an embodiment where a “Window Partition 275” may “overlay” other partitions. ’849 patent, 11:60-12:8; Fig. 3a. In this embodiment, “[l]ogic associated with the window supersedes base page logic...and most logic functions for the overlaid page are deactivated.” *Id.*, 12:1-5. Zynga argues its definition does not read out the embodiment shown in Fig. 3a because claims 8 and 21 of the ’849 patent could cover that embodiment, as they do not require concurrent display. However, while those claims do not require concurrence, they require other limitations that the embodiment does not illustrate—namely targeted advertising. D.I. 125 at 23. Thus, no claim appears to cover the embodiment in Figure 3a under Zynga’s proposal. When an embodiment specifically described by the specification would be excluded by one construction but not the other, it is proper to adopt the non-excluding construction. *See, e.g., NTP, Inc. v. Research In Motion, Ltd.*, 418 F.3d 1282, 1296-97 (Fed. Cir. 2005). Accordingly, the Court construes “presented . . . at a second portion of one or more screens of display concurrently with [user requested] applications” to mean “presented . . . at a second area of one or more screens of display concurrently with applications.”

² Which the parties had agreed had the same meaning as portion. *Groupon*, 2017 WL 3310688, at *3.

D. Application(s)

Disputed Term	Plaintiff Construction	IBM's Construction	Defendants Rakuten's Construction	Court's Construction
Applications Claims 1, 4, 7, 8, 13, 14, 17, 20, 21	information events composed of a sequence of one or more pages opened at a screen	No Construction Necessary. Alternatively: “information events composed of a sequence of one or more pages that include a header page partition, one or more body page partitions and window page partitions, each of which is associated with a page element that gives the informational and transactional content of the page”		information events composed of a sequence of one or more pages opened at a screen

The parties dispute whether “applications” needs to be construed. IBM offers a definition pulled directly from the patent’s specification. 849 patent, 9:35-37 (“Applications, i.e., information events, are composed of a sequence of one or more pages opened at screen 414 of monitor 412.”).

“[T]he specification ‘acts as a dictionary when it expressly defines terms used in the claims.’” *Phillips*, 415 F.3d at 1321. A “specification’s use of ‘i.e.’ signals an intent to define the word to which it refers.” *Abbott Labs. v. Novopharm Ltd.*, 323 F.3d 1324, 1327, 1330 (Fed. Cir. 2003). A court must engage in a “contextual analysis ... [to] determine[e] whether the patentee’s use of ‘i.e.’ [i]s definitional,” making sure “to read all portions of the written description, if

possible, in a manner that renders the patent internally consistent.” *Dealertrack, Inc. v. Huber*, 674 F.3d 1315, 1327 (Fed. Cir. 2012).

Here, the Court agrees that the sentence IBM has identified in the specification itself manifests a clear intent to define applications as a combination of pages. A court in this district has adopted this definition before, albeit without the same issues being raised. *See IBM v. Priceline Grp. Inc.*, C.A. No. 15-137, 2016 WL 6405824, at *4 (D. Del. Oct. 28, 2016). Thus, the Court will construe this term using the definition provided in the specification.

Given that the Court is construing the term as IBM has proposed, Zynga argues that additional information (“a header page partition, one or more body page partitions and window page partitions, each of which is associated with a page element that gives the informational and transactional content of the page”) from the specification must be included. D.I. 125 at 27 (citing ’849 patent, 9:49–64). However, the additional definitional language Zynga cites is all from an optional embodiment. *See* ’849 patent, 4:54-55, 9:10-30. Importing those limitations into the claims would be improper. *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1323 (Fed. Cir. 2005) (“although the specification often describes very specific embodiments of the invention, we have repeatedly warned against confining the claims to those embodiments.”). Indeed, Judge Stark already rejected importing the “informational and transactional content of the page” limitation, for the same reasons. *See IBM v. Priceline Grp. Inc.*, 2016 WL 6405824, at *4. Accordingly, the Court construes “applications” as “information events composed of a sequence of one or more pages opened at a screen.”

IV. DISPUTED TERMS OF THE '346 Patent

A. Single-Sign-On Operation

Claim Term	Plaintiff IBM's Construction	Defendants Zynga's Construction	Court's Construction
Single-sign-on operation Claims 1-4	a process by which a user is not required to perform an authentication to gain access to a second entity's resources after the user has been authenticated with a first entity	a process by which a user is not required to take an action that provides credentials, or that plays a role in launching a provision of credentials on the user's behalf, to gain access to a second entity's resources after the user has been authenticated with a first entity	a process by which a user is not required to take an action that provides credentials, or that plays a role in launching a provision of credentials on the user's behalf, to gain access to a second entity's resources after the user has been authenticated with a first entity

The parties dispute how best to interpret the Federal Circuit's decision in *Int'l Bus. Machines Corp. v. Iancu*, where the Federal Circuit reviewed the Patent Trial and Appeal Board's (PTAB) construction of the '346 patent's term, and specifically discussed the proper construction of "single-sign-on operation." 759 F. App'x 1002, 1003 (Fed. Cir. 2019). IBM proposes using the Federal Circuit's definition of single-sign-on without replacing "authentication" with the Federal Circuit's definition of "authentication." Zynga proposes substituting in the Federal Circuit's definition of "performs an authentication."

The Federal Circuit in *Iancu* held that:

a user 'perform[s]' an authentication when the user takes an action that provides credentials, or that plays a role in launching a provision of credentials on the user's behalf, to obtain access to resources. A 'single-sign-on operation' thus is one that does not require the user to take such action to gain access to a second entity's resources after the user has been authenticated with a first entity.

Id. at 1009. Both parties agree that this Court should follow this verbiage when construing "single-sign-on operation."

The Court agrees with Zynga that the Federal Circuit construed “single-sign-on operation” as one that does not require the user to provide credentials again after the user has been authenticated with a first entity. Because the Federal Circuit’s definition of “perform an authentication” holds precedential weight, the Court adopts Zynga’s construction.

IBM argues that this definition is inconsistent with the specification’s definition of “single-sign-on.” IBM argues the patentee acted as its own lexicographer by stating “[t]hese techniques are generally described as ‘single-sign-on’ (SSO) processes because they have a common purpose: after a user has completed a sign-on operation, *i.e.* been authenticated, the user is subsequently not required to perform another authentication operation.” ’346 patent, 1:55-59. The passage IBM has identified is merely setting out the purpose of single-sign-on and does not contain clear definitional intent. IBM’s proposed definition also leaves open the question of the definition of “perform an authentication.” IBM does not later seek to define this term in a manner consistent with the Federal Circuit’s definition, but only seeks to define “authentication” as “the process of validating a set of credentials that are provided by a user or on behalf of a user.” D.I. 125 at 40. As such, adopting IBM’s proposed definitions would omit reference to the Federal Circuit’s clear language requiring a lack of provision of credentials.

Accordingly, the Court construes “single-sign-on operation” as “a process by which a user is not required to take an action that provides credentials, or that plays a role in launching a provision of credentials on the user’s behalf, to gain access to a second entity’s resources after the user has been authenticated with a first entity.”

B. Authentication

Claim Term	Plaintiff IBM's Construction	Defendants Zynga's Construction	Court's Construction
Authentication Claims 1, 3, 4	the process of validating a set of credentials that are provided by a user or on behalf of a user	No construction necessary	the process of validating a set of credentials that are provided by a user or on behalf of a user

The parties dispute whether “authentication” needs to be construed at all. Given the Federal Circuit in *Iancu* defined “authentication”³ as IBM has proposed here, the Court adopts that definition. *Iancu*, 759 F. App’x, at 1008-09. The Court construes “authentication” as “the process of validating a set of credentials that are provided by a user or on behalf of a user.”

C. Triggering a Single-Sign-On Operation on Behalf of the User

Claim Term	Plaintiff IBM's Construction	Defendants Zynga's Construction	Court's Construction
triggering a single-sign-on operation on behalf of the user Claim 1	No construction necessary. Alternatively: initiating a single sign-on operation on behalf of the user	initiating a single sign-on-operation without direction from the user to do so	No construction necessary

The parties dispute whether the phrase “on behalf of the user” excludes actions done at the user’s direction. The Court declines to read such a limitation into the claim. Instead, the Court agrees with IBM that no construction of the term “triggering a single-sign-on operation on behalf of the user” is necessary.

In *Int’l Bus. Machines Corp. v. Zillow Grp., Inc.*, the Western District of Washington, construing the same ’346 patent, rejected a claim construction argument that interpreted the term

³ As compared to “perform an authentication,” *see supra*.

“on behalf of” to mean “when an event occurs that requires an authentication that the user has not requested.” No. C20-0851 TSZ, 2022 WL 16532557, at *6 (W.D. Wash. Oct. 28, 2022). Instead, the court found that requiring the authentication to be one that the user has not requested “improperly imports limitations into the claims at issue.” *Id.* This Court agrees. In fact, in multiple instances, the specification clarifies that a user may initiate a single-sign-on operation. *See, e.g.*, ’346 patent, 23:37-40 (“The user initiates a transaction at a federation partner, such as enterprise 620 that also supports a federated domain, thereby triggering a federated single-sign-on operation”); *id.* at 23:40-43 (“As another example, the user may invoke a federated single-sign-on operation.”); *id.* at 37:62-67 (If “the user has [] requested . . . overall access to the service provider,” then “the identity provider is redirected directly to the known functionality to accomplish the single sign-on operation.”).

While Zynga identifies other specification language that distinguishes between an action *by* the user, and an action *on behalf* of the user, *see id.* at 29:66–30:3; 14:2–7, none of those examples support excluding actions done at the user’s *direction*, as Zynga proposes. Indeed, Zynga’s proposed language appears nowhere in the specification. The ordinary meaning of “on behalf of” is sufficiently clear for the jury to understand, and Zynga’s proposed definition would import improper limitations. Thus, the Court finds that no construction of “on behalf of the user” is necessary.

D. Distributed Data Processing System

Claim Term	Plaintiff IBM’s Construction	Defendants Zynga’s Construction	Court’s Construction
Distributed data processing system Claim 1	computers connected through a network that perform data processing	computers connected over a network to cooperatively process data	computers connected through a network that perform data processing

In construing the term “distributed data processing system,” the parties dispute whether the term refers to the environment for computing or creates a requirement that multiple computers cooperate to perform the data processing. The Court holds that it refers to the environment for computing.

The specification refers to a distributed data processing system as one that includes a network to “provide communications links between various devices and computers connected together.” ’346 patent, 4:35-39. The specification does not, however, refer to cooperative processing. The *Zillow* court has already construed this term and adopted IBM’s proposed construction. *Zillow*, 2022 WL 16532557, *3.

In support of its definition importing this limitation, Zynga relies on a number of dictionaries; but Zynga has not cited a single source that defines the term “distributed data processing system.” See D.I. 125 at 50. Conversely, the McGraw-Hill Dictionary defines “distributed processing system” as “an information processing system consisting of two or more programmable devices, connected so that information can be exchanged.” D.I. 125-13. This definition comports with IBM’s proposed construction, and more neatly fits the specification. Thus, this Court adopts IBM’s construction, and construes “distributed data processing system” to mean “computers connected through a network that perform data processing.”

E. Identifier Associated with the User

Claim Term	Plaintiff IBM’s Construction	Defendants Zynga’s Construction	Court’s Construction
Identifier associated with the user Claims 1, 13	Information that uniquely identifies the user	No construction necessary	Information that uniquely identifies the user

In construing the term “identifier associated with the user,” the parties dispute whether a user identifier must be unique. The Court finds that it does.

In fact, the claim language itself supports an interpretation that the identifiers must be unique. Under Claim 1, the method comprises “triggering a single-sign on operation on behalf the user,” then “receiving from the first system at the second system an identifier associated with the user; and creating a user account for the user at the second system based at least in part on the received identifier associated with the user.” ’346 patent, claim 1. For a user identifier to have value in creating a unique user account, the specification clarifies that the identifier itself would have to be unique. ’346 patent, 32:22-23 (“these accounts may be used independently because a unique user account is based on a unique user identifier.”)

The specification also provides that “a linked user account is based on a user identifier that is independent and unique in comparison with any other user identifier that is known to the service provider; this particular user identifier is known as an alias identifier.” ’346 patent, 32:30–34. While Zynga argues that this language supports its interpretation, the Court disagrees. In fact, claims referencing alias identifiers are distinct from the claims at issue here—alias identifiers are identifiers that do not provide any real-world information about the user. ’346 patent, 16:48–52. Moreover, the specification supports requiring unique identifiers outside the context of alias identifiers. *See, e.g., id.*, 25:66-26:3 (“A user is provided with a common unique user identifier.”).

While Zynga argues that the patent’s usage of “unique user identifier” indicates that not all user identifiers must be unique, it points to no example in the specification where the phrase “user identifier” is used in a way implied to be non-unique. Instead, the patent appears to emphasize the uniqueness in only those places where it is technically relevant. *See, e.g., id.*,

32:22-23, 25:66-26:3. Accordingly, the Court construes “identifier associated with the user” as “information that uniquely identifies the user.”

V. DISPUTED TERMS OF THE '719 Patent

A. Model Associated with the Application

Claim Term	Plaintiff IBM's Construction	Defendants Zynga's Construction	Court's Construction
Model associated with the application Claims 1, 26	the data, rules, and algorithms affecting the data associated with the application	the data, rules, and algorithms affecting the data of the application	the data, rules, and algorithms affecting the data associated with the application

While the parties agree, as does the Court, that the term “model” refers to the “data, rules, and algorithms affecting the data,” they differ on whether “model” as used in the term “model associated with the application” must be the “application’s model.” D.I. 125 at 61. This Court finds that the model need only be associated with the application, in accordance with the plain language of the term.

IBM argues that Zynga’s construction would read out the term “associated with.” For the specification to override the plain meaning of “associated with,” this Court must find that the specification redefines or disavows the term. *Straight Path IP Grp., Inc. v. Sipnet EU S.R.O.*, 806 F.3d 1356, 1361 (Fed. Cir. 2015). The Federal Circuit has previously held that “associated with” is sufficiently clear for a jury to understand and conveys a “required functional relationship” that is distinct from “of.” *ViaTech Techs. Inc. v. Microsoft Corp.*, 733 F. App’x 542, 549 (Fed. Cir. 2018). Therefore, the Court looks to the specification to see if it clearly redefines or disavows the plain meaning of “associated with.” The Court finds that it does not.

Zynga first points to the “Summary of the Invention,” which explains that the invention employs a dual-MVC (model-view-controller) approach “in which a subset of the application’s Model-View-Controller resides on the client, and the full Model-View-Controller and View-Generating-Logic reside on the server.” ’719 patent, 2:42-49; *see also id.*, 3:1-6 (“the MVC of the application.”). However, the Summary merely refers to the MVC’s storage location, and does not require that it be “of” the application in some broader sense.

Zynga concedes that the specification refers to an “application-independent model” when describing a “library frame.” *Id.*, 8:41-44. But Zynga argues that, because claims 9 and 21 explicitly add an “application-independent model,” claim differentiation gives rise to a presumption that the generic reference to a “model associated with the application” does not include an “application-independent model.” However, this merely requires that the “model associated with the application” not be “application-independent,” not that it be “of the model.” The plain language of “associated with the application” already differentiates it from “application-independent.”

Zynga also points to the specification’s other uses of “associated with.” Zynga argues that when the specification describes “client-side code associated with the MVC” the client-side code must be the code of the application, and that when the specification describes “a particular application . . . associated with a particular server” the application is associated with the server because it is running on it. D.I. 125 at 62 (citing 3:1-6, 4:65-5:6). The first citation is misleading—the full quote is “client-side code associated with the MVC of the application,” indicating that in context the possessive relationship is identified by the specification. The second citation is insufficient to override the plain meaning of “associated with.”

Accordingly, the Court construes “model associated with the application” to mean “the data, rules, and algorithms affecting the data associated with the application.”

B. The Client and the Server Both Locally . . . Execute the View-Generating and Controller Logic

Claim Term	Plaintiff IBM’s Construction	Defendants Zynga’s Construction	Court’s Construction
the client and the server both locally . . . execute the view-generating and controller logic associated there with Claims 1, 26	No construction necessary	“view-generating logic” and “controller logic” executed on client must be the same “view-generating logic” and “controller logic” executed on the server, or some subset thereof	“view-generating logic” and “controller logic” executed on client must be the same “view-generating logic” and “controller logic” executed on the server, or some subset thereof

The parties dispute whether IBM disclaimed the ability for the client and the server to run different logic. The Court finds that it has.

IBM distinguished its invention over prior art in which “the client and server were running different logic.” D.I. 98-10 (“Ex. C-2”) (10/24/05 Applicant Remarks), p.13. IBM argued that “in the claimed approach, both the client and the server execute the same model and view-generating logic and controller logic associated with the application (albeit, with the client executing at least a subset thereof.)” *Id.*

IBM’s efforts to distinguish this clear disclaimer are unpersuasive. First, IBM argues that this disclaimer is related to the client/server configuration relationship, as opposed to the model/logic execution relationship. D.I. 125 at 68. Second, IBM argues that the claims did not include the at-issue term at the time of the disclaimer and therefore that “statements made regarding pending claims differing from issued claims “do not meet the high standard for prosecution disclaimer to attach.” *Id.* (citing *Massachusetts Inst. of Tech. v. Shire Pharms., Inc.*,

839 F.3d 1111, 1119 (Fed. Cir. 2016)). The plain language of the disclaimer, however, discusses execution of the logic, and the disclaimer was made in reference to the same clause the parties seek to construe here. *See* Ex. C-2 (10/24/05 Amendment), p. 13. The amendment is no more persuasive: adding the word “locally” and changing “resident thereon” to “associated therewith” is insufficient to make the claims “different” in the meaning of *Shire*. None of the later amendments change the clear and unmistakable disclaimer made by IBM.

Therefore, the Court construes “the client and the server both locally . . . execute the view-generating and controller logic associated therewith” to mean that the “‘view-generating logic’ and ‘controller logic’ executed on the client must be the same ‘view-generating logic’ and ‘controller logic’ executed on the server, or some subset thereof.”

VI. CONCLUSION

The Court will adopt the parties’ agreed-upon constructions and construe the disputed claim terms as described above. The Court will issue an Order consistent with this Memorandum Opinion.

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE**

INTERNATIONAL BUSINESS MACHINES
CORPORATION,

Plaintiff,

v.

ZYNGA INC., and CHARTBOOST, INC.,

„

Defendants.

Civil Action No. 22-590-GBW

ORDER

At Wilmington this 20th day of October, 2023:

For the reasons set forth in the Memorandum Opinion issued this day, **IT IS HEREBY ORDERED** that the Court construes the following claim terms of U.S. Patent Nos. 7,072,849 (“the ’849 patent”), 7,631,346 (’346 patent) and 7,702,719 (’719 patent) as follows:

’849 Patent	
Claim Term	Court’s Construction
Agreed-Upon Terms	
Preamble Claims 1, 8, 13, 14, 21	limiting
Structuring [the] advertising in a manner compatible to that of the applications so that [it/advertising] may be presented Claims 1, 13, 14	formatting [the] advertising for potential use with a plurality of applications

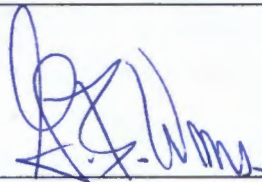
'849 Patent	
Claim Term	Court's Construction
Disputed Terms	
selectively storing advertising objects at a store established at the reception system Claims 1, 13, 14 (already construed in IBM v. Rakuten)	pre-fetching advertising objects and storing them at a store established at the reception system in anticipation of display concurrently with the applications
User reception system/user reception systems including a monitor Claims 1, 8, 13, 14, 21	A personal computer or other smart user terminal A personal computer or other smart user terminal including a monitor
presented . . . at a second portion of one or more screens of display concurrently with [user requested] applications Claims 1, 13, 14	presented ... at a second area of one or more screens of display concurrently with applications
Applications Claims 1, 4, 7, 8, 13, 14, 17, 20, 21	information events composed of a sequence of one or more pages opened at a screen

'346 Patent	
Claim Term	Court's Construction
Agreed-Upon Terms	
Preamble Claim 1	limiting
Protected Resource(s) Claims 1	an application, an object, a document, a page, a file, executable code, or other computational resource, communication-type resource, etc., identified by a Uniform Resource Locator (URL), or more generally, a Uniform Resource Identifier (URI), that can only be accessed by an authenticated and/or authorized user
Federated computing environment Claims 1	an environment having a loosely coupled affiliation of a plurality of distinct enterprises that adhere to certain standards of interoperability; the federation provides a mechanism for trust among those enterprises with respect to certain computational operations for the users within the federation

'346 Patent	
Claim Term	Court's Construction
Disputed Terms	
Single-sign-on operation Claims 1-4	a process by which a user is not required to take an action that provides credentials, or that plays a role in launching a provision of credentials on the user's behalf, to gain access to a second entity's resources after the user has been authenticated with a first entity
Authentication Claims 1, 3, 4	the process of validating a set of credentials that are provided by a user or on behalf of a user
triggering a single-sign-on operation on behalf of the user Claim 1	No construction necessary
Distributed data processing system Claim 1	computers connected through a network that perform data processing
Identifier associated with the user Claims 1, 13	Information that uniquely identifies the user

'719 Patent	
Claim Term	Court's Construction
Agreed-Upon Term	
View generating . . . logic associated with the application Claims 1, 12, 26	program code that generates a screen or window representation of a subset of the model that the application chooses to display
Controller logic associated with the application Claims 1, 12, 26	program code that processes user requests and causes the model to be changed and/or the view to be refreshed
Disputed Terms	
Model associated with the application Claims 1, 26	the data, rules, and algorithms affecting the data associated with the application

'719 Patent	
Claim Term	Court's Construction
the client and the server both locally . . . execute the view-generating and controller logic Claims 1, 26	"view-generating logic" and "controller logic" executed on client must be the same "view- generating logic" and "controller logic" executed on the server, or some subset thereof



 GREGORY B. WILLIAMS
 UNITED STATES DISTRICT JUDGE