IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

ROBOCAST, INC.,	:	
	:	
Plaintiff,	:	
	:	
v.	:	C.A. 10-1055-RGA
	:	
MICROSOFT CORPORATION,	:	
	:	
Defendant.	:	
	:	
	:	
ROBOCAST, INC.,	:	
	:	
Plaintiff,	:	
	:	
v.	:	C.A. 11-235-RGA
	:	
APPLE INC.,	:	
	:	
Defendant.	:	

CLAIM CONSTRUCTION

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June 28, 2013
Wilmington, Delaware

ANDREWS, UNITED STATES DISTRICT JUDGE:

This is a claim construction opinion. Plaintiff Robocast, Inc. has asserted complaints for infringement of United States Patent No. 7,155,451 ("`451 Patent") against Defendants Microsoft Corporation and Apple Inc. (C.A. 10-1055-RGA, D.I. 1; C.A. 11-235-RGA, D.I. 1).

The `451 Patent relates to methods of automating the presentation of computer content. The invention is generally intended to reduce the number of decisions a user makes while surfing the web or browsing other computer content. The user is able to preprogram the software to automatically present an arrangement of preferred content in a streamlined fashioned, while preserving the user's ability to interact with the displayed content. This method of presentation requires the creation of a "show structure of nodes," which may be structured in a variety of arrangements as taught by the claims of the `451 Patent.

The disputed terms follow.

A. "Show Structure of Nodes"

Robocast's Proposed Construction:	one or more paths through a plurality of nodes defining an arrangement for presentation of content
Defendants' Proposed Construction:	data structure including both a set of nodes and data, other than a list of nodes, specifying a sequenced path through those nodes and the duration for which each node's content is to be displayed by default.
Construction of the Court:	a structure that is arranged for the display of content by specifying one or more paths through a plurality of nodes. The show structure of nodes specifies the duration of any display.

The first term is "show structure of nodes." This term phrase is used in all five of the asserted independent claims.[1] To provide context for the term, it is used in claim 1 as follows:

> A method for displaying on a user's computer, content derived from a plurality of resources in an organized arrangement comprising the steps of:
>
> creating a show structure of nodes, each node identifying a resource from a plurality of accessible resources;
>
> without requiring user input, automatically accessing a plurality of said resources each of said resources identified by each of said nodes; and
>
> displaying a content corresponding to each of said resources automatically in accordance with said show structure, wherein said step of creating further comprises the step of providing an interactively variable duration information, representing the duration within which a corresponding content to said resource is being displayed so as to enable a user to vary said duration.

The parties agree that the "show structure of nodes" relates to the automated presentation of content from internet resources. Both sides adopt constructions that define "show structure of nodes" as including a "path" that travels "through" the "nodes" in order to display or present "content." There are, however, four disputes of scope relating to the phrase. These are (1) whether the patentee disclaimed a "list of nodes" from the "show structure of nodes;" (2) whether the "show structure of nodes" necessarily specifies a "duration for which each node's content is to be displayed by default;" (3) whether the "show structure" itself must be construed as a "data structure;" and (4) whether the "path" of the "show structure of nodes" must be "sequenced." These proposed elements are discussed in turn.

(1) "Other than a list of nodes"

Defendants argue that the patentee disclaimed a "list of nodes" during prosecution. A patentee may limit the meaning of a claim term by making a clear and unmistakable disavowal of

[1] This seems to be the most critical term to construe. Essentially 100% of the three hours of argument at the *Markman* hearing on January 25, 2013 was devoted to it. (D.I. 155, p. 116).

scope during prosecution. *Viiv Healthcare UK Ltd. v. Lupin Ltd.*, 2012 WL 5839380, *4 (D. Del. 2012). This may occur where an applicant clearly characterizes an invention in order to overcome rejections based on prior art. *Id.* Prosecution disclaimer is not found where the file history is ambiguous. *Id.* Defendants argue that the patentee disclaimed "a list of nodes" from possible arrangements used to form "a show structure of nodes." In support, they rely on the patentee's June 2000 discussion of the "Braverman" prior art article in response to an examiner rejection:

> Meanwhile, the Braverman reference discloses a simple slide show wherein a list of URLs are read and presented in succession as in a slide show. A special script file is employed that contains the list of the URLs and corresponding delay times. The script file that the slide show reads "is a simple ASCII text file, consisting of one command per line." Braverman, p. 2, line 1.
>
> None of the references cited by the Examiner teach or suggest the present invention as claimed. For example, claim 1 of the present application relates to a method for displaying content corresponding to a show structure of nodes, wherein the delay time between the display of two consecutive nodes can be varied by the user in an interactive arrangement system.

(D.I. 135, Exh. J at 7). The patentee once again discussed the "Braverman" art in an April 2001 response:

> None of the references cited by the Examiner teach or suggest the present invention as recited in claim 1. For instance, neither of the references teach or suggest the step of providing an interactively variable duration information, so as to enable a user to vary the duration that a resource is displayed to the user. Specifically, the present invention provides a system wherein the rate of transfer from one node to another in the show structure can be interactively varied and controlled by the user. Thus, a user can speed up or slow down the rate at which the consecutive resources are being displayed.
>
> By contrast, there is no teaching or suggestion in Hauck or Braverman to provide a system wherein the rate of transfer from one node to the other can be interactively varied and controlled by the user.

(D.I. 135, Exh. F at 6). The patentee distinguishes "Braverman" based on a distinct feature: the capability of the user to interact and thus vary the delay time between the display of two

consecutive nodes. This does not disclaim a "list of nodes" from a "show structure of nodes." It is completely consistent with the patentee's distinction for the "show structure of nodes" to be arranged according to a "list of nodes" format, so long as the user may control the timing of the display of each node on the list. For this reason, there is no prosecution disclaimer based on the "Braverman" discussion, and the Court will not adopt Defendants' "other than a list of nodes" proposed element of the construction.

(2) "The duration for which each node's content is to be displayed by default"

The second dispute is whether the "show structure of nodes" must require "the duration for which each node's content is to be displayed by default." Defendants argue that this construction is a necessary to the function of the claims, as there would otherwise be no mechanism to ensure that the "show structure" moves from "node" to "node" along its "path." This can be understood as a limitation that requires the "nodes" to have a predetermined duration set to trigger the transitions between nodes. Robocast does not agree that this is an appropriate element of the construction, arguing that it is inconsistent with the specification's explicit definition of the term, is inconsistent with the language of the claims and the presumption of claim differentiation, and would read out preferred embodiments.

Robocast argues that the specification contains an explicit definition of "show structure of nodes," and this definition has no durational requirement. The supposed definition follows: "A show structure is defined by one or more paths that are spanned through these nodes." '451 Patent at 3:4-6. It is true that a patentee may act as his own lexicographer, and does so when he clearly states any special definitions of the claim terms in the patent specification or file history. *GlaxoSmithKline LLC v. Anchen Pharmaceuticals, Inc.*, 2012 WL 5594540 (D. Del. 2012). The Court, however, does not believe the patentee acted as his own lexicographer here, despite his

use of the word "defined." A natural reading of the sentence most strongly suggests that the "[a] show structure is defined by" phrasing is used to describe important features of the "show structure," but is not intended to communicate an explicit definition of the term itself. For example, the phrase "a person is defined by his actions" does not literally mean that the definition of "person" is "actions." The finding that the patentee did not intend a special definition is consistent with Robocast's own proposed construction, which does not adopt the supposed explicit definition in its entirety. If the patentee intended to provide an express definition, the supposed definition would not need to be modified or supplemented. *See GlaxoSmithKline LLC*, 2012 WL 5594540 at *4. That is not to say that the quotation is irrelevant. To the contrary, both sides agree that the "show structure" must comprise a "path" that travels through "nodes," as indicated by the quotation. The claim construction analysis of "show structure of nodes," however, does not end here.

Robocast next argues that the doctrine of claim differentiation is contrary to construing "show structure of nodes" with the proposed durational element. Robocast argues that while all five of the asserted independent claims include the step of "creating a show structure of nodes," only claim 1 specifies the "step of creating further comprises the step of providing an interactively variable duration information, representing the duration within which a corresponding content to said resource is being displayed so as to enable a user to vary said duration." Robocast argues that the absence of any durational reference in the other four claims is strong evidence that no duration information is required. Robocast further argues that of these four remaining independent claims, three (claims 10, 22, and 37) have corresponding dependent claims (claims 11, 23, and 38) that add separate durational requirements.

The strength of the claim differentiation argument, however, is weakened by the presence of dependent claim 2 purporting to add a durational limitation that is supposedly not present in independent claim 1. Claim 2 adds the limitation, "wherein said step of creating [a show structure of nodes] further comprises the step of providing a duration information, representing the duration within which a corresponding content to said resource is being displayed." Claim 1 itself, however, already has the limitation of "wherein said step of creating further comprises the step of providing an interactively variable duration information." This makes clear that "duration information," which is the only additional limitation provided by claim 2, is already present in claim 1. The patentee's addition of a durational limitation via a dependent claim to an independent claim where one is clearly already present lessens the force of Robocast's claim differentiation argument. The premise of claim differentiation is that the inventor would not add a redundant dependent claim. That is, however, what the inventor did here. Thus, that he would do it in other claims is also plausible.

Moreover, all of the independent claims contain the limitation that the content "automatically" be displayed or delivered to the user, and Robocast provides no satisfactory answer as to how the "show structure" would accomplish this absent a durational component associated with each "node." A review of the specification reveals that the patentee impliedly defined a "show structure of nodes" to require a durational element. Robocast warns that employing the specification to limit the claims would be inconsistent with *Phillips v. AWH Corporation*, which states:

> [T]he line between construing terms and importing limitations can be discerned with reasonable certainty and predictability if the court's focus remains on understanding how a person of ordinary skill would understand the claim terms. For instance, although the specification often describes very specific

> embodiments of the invention, we have repeatedly warned against confining the claims to those embodiments.

415 F.3d 1303, 1323 (Fed. Cir. 2005) (en banc). The Court finds instructive various passages in the specification. These passages are not "very specific embodiments of the invention." They are instead definitive statements that describe the basic components of the "show structure of nodes," a term with no well accepted meaning in the art of computer science and no explicit definition. The lone fact that a description is preceded by "in accordance with one embodiment of the invention" is not a reason to ignore that description. For example, the "Summary of the Invention" section begins, "In accordance with one embodiment of the invention, a presentation software is employed in a web browser software." *Id.* at 2:51-53. This is the polar opposite of a "very specific embodiment[]" that the Federal Circuit has instructed against employing to limit claim terms. Despite the self-styling as "one embodiment of the invention," there is no tenable argument that "presentation software [] employed in a web browser software" is not applicable to each claim. The very next sentence describes the "show structure" as a "presentation of a series of resources" that is "commenced" after a "triggering event." *Id.* at 2:53-55. The word "show" itself implies a presentation with a beginning and an end, i.e., a presentation with a durational component. This is supported by the ensuing acknowledgment, "The presentation of all resources may be adjusted for different pacing attributes of individual users." *Id.* at 3:09-11. The use of the word "pacing" further implies that timing is intrinsic to the "show structure" presentation. Further, this sentence appears within a very general description of the invention, suggesting it is strong evidence for defining the scope of "show structure of nodes."[2]

[2] Unlike the other eight paragraphs in the "Summary of the Invention," all of which purport to be describing an "embodiment" or "aspect" of the invention, the ninth paragraph is clearly describing the invention as a whole. In relevant part, it reads:

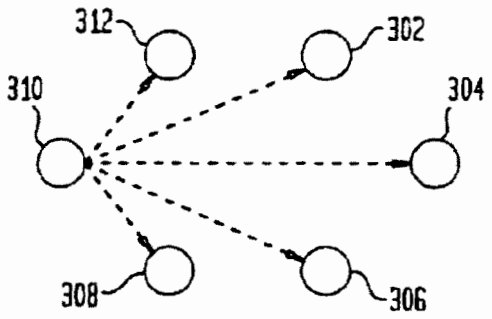
Another piece of intrinsic evidence suggesting that the durational aspect is limiting appears within the "Field of the Invention" paragraph: "This invention relates generally to computer networks, and specifically to a method of sequencing and scheduling web pages, via a suite of software applications." *Id.* at 1:16-19. The "Abstract" section likewise describes "[a] method of sequencing and scheduling web resources, via a software application that collects URLs and feeds them to a Web browser, so that the amount of clicks and decisions are reduced when browsing the Internet." The "scheduling and sequencing" of web pages strongly suggests they will be displayed according to some timing arrangement. Finally, the description of the "node" of the "show structure" references an "indication of the duration" consistent with the above quotations: "Each node in the structure includes both an address from which the information may be accessed and an indication of the duration for which the content will be presented." *Id.* at 3:26-29. All of this indicates that a durational component is fundamental to the "show structure of nodes."

Robocast argues that adopting the durational requirement would read out a preferred embodiment of the invention. Specifically, Robocast points to Figure 2C and its accompanying description. Figure 2C follows:

> The presentation of all resources may be adjusted for different pacing attributes of individual users. While the invention may automate a number of the decisions that a user makes in viewing a plurality of resources, it in no way inhibits the interactivity currently present on the Web. The decision-making process is not inhibited: it is optional, allowing for preprogramming and navigating the arrangement of resources on-the-fly or simply watching a series of pre-edited resources. The present invention serves as an enhancement which refocuses the state of content delivery to a user via a communication medium, such as the Internet, TV/PC hardware and software offerings.

Id. at 3:09-21.

FIG. 2C



The parties agree that Figure 2C is representative of claim 37, which claims a "multidimensional show structure of nodes" as follows:

> A method for displaying on a user's computer, content derived from a plurality of resources in an organized arrangement comprising the steps of:
>
> > creating a multidimensional show structure of nodes, each node identifying a resource from a plurality of accessible resources;
> >
> > without requiring user input accessing each of said resources identified by each of said nodes wherein at least two of said nodes are spanned concurrently;
> >
> > automatically displaying a content corresponding to each of said resources in accordance with said show structure, wherein contents of said at least two nodes are displayed during an overlapping time period.

Robocast argues that Figure 2C proves that a "show structure of nodes" does not need a durational limitation. Robocast describes Figure 2C as simultaneously presenting five parallel paths, each path with a length of one, meaning there is only a starting and an ending node for each path. Robocast argues that in this example, a user would begin on node 310, and then click to reveal the five remaining nodes simultaneously. Unlike other claims, which may need a timing mechanism to trigger transition from one node to the next, this claim would allow the user herself to accomplish this goal. Because this example does not require a durational element, it is argued that Defendants' proposed construction would wrongfully exclude the embodiment.

The Court does not agree that Figure 2C describes this type of function. The language of claim 37 itself is inconsistent with Robocast's interpretation. According to the claim, once the "show" begins, the node resources are accessed "without requiring user input" and the corresponding node content is "automatically display[ed]," where the "contents of said at least two nodes are displayed during an overlapping time period." Because node content is displayed automatically and without user input, it would be inconsistent with the claim to require the user to trigger the transition from node 310 to the five simultaneously displayed nodes as depicted in Figure 2C. Although there must be some user input to begin the show in the first place, the transition from the first node onward should be automatic. Thus, some durational aspect to trigger the transition would be needed. This is consistent with the description of the figures:

> Each node identifies an available resource and the time the resource may be presented to the user.... For a typical show or presentations, an arrangement of these nodes or a portion of these nodes is selected for presentation as described in reference with FIGS. 2*c* through 2*f*.... FIG. 2*c* illustrates a show structure that simultaneously spans multiple paths from the same starting node such as node 310 to each one of the remaining nodes 312, 302, 304, 306 and 308. Thus, a show in accordance with the structure presented in FIG. 2*c* simultaneously presents the contents identified by nodes 312, 302, 304, 306, and 308, after the content identified by node 310 is presented.

Id. at 7:02-20. This passage clearly envisions nodes associated with Figure 2C as identifying "the time a resource may be presented to the user," i.e., as having a durational component. It further indicates that the simultaneously presented nodes are only revealed *after* the content of node 310 is presented to the user. As stated in the claims, this presentation must occur "automatically" and "without requiring user input." This means that some durational mechanism is necessary.

For these reasons, the Court construes "show structure of nodes" to require a "duration for which each node's content is to be displayed by default."

(3) "Data structure"

Defendants also propose that "show structure of nodes" must necessarily be construed as a "data structure." Defendants point to the following portion of the specification in support: "At step 158, in response to the received show structures, the RoboSurf program residing at the user's terminal parses the data and displays the nodes in the structure in its Schedule window 2 (shown in FIG. 7)." *Id.* at 12:43-47. Defendants argue that there is no dispute that the "show structure of nodes" is made from data, and therefore "data structure" must be used within the construction. The Court disagrees. The term "data structure" is nowhere to be found within the claims, specification, or patent history. Moreover, "data structure" is an exceedingly broad term that does nothing to clarify the scope of the claims. The Court is inclined against reading extraneous material into the construction. For this reason, the Court declines to incorporate "data structure" into the construction of "show structure of nodes."

(4) "Sequenced Path"

The final dispute regarding the construction of "show structure of nodes" is whether the "show structure" must specify a "sequenced path." Robocast opposes this construction, pointing out that while the preamble of claims 10, 22, and 39 call for a "sequential arrangement," claims 1 and 37 call for an "organized arrangement." Defendants counter that portions of the specification show that the term "organized" is used in a manner consistent with "sequential presentation."

The Court does not agree that "sequenced" should be read into the construction of "show structure of nodes." The Court does agree that every "show structure" must display some resource after a previous resource. This is the essence of a "path" of nodes. That does not mean

it is correct to read "sequenced" into the claims, especially when that term is used in some claims and not in others, where "organized" is used instead. The patentee knew the difference between "sequential arrangement" and "organized arrangement," choosing to use the respective terms when he deemed appropriate. Although every "show structure" must form a "path" of "nodes," and requires a progression from one node or group of nodes to the next node or group of nodes, the use of "organized arrangement" cannot be said to be without significant independent meaning, at least in relation to claim 37, which claims nodes that display multiple contents concurrently. It would thus be inconsistent to require the entirety of the "show structure" arrangement to be defined as "sequential" when at least some of the time, content from multiple nodes is displayed simultaneously and not in a sequential manner. "Organized arrangement" should thus be read more broadly, as including "show structure" paths with "sequenced" portion and a "multidimensional" portion. This is supported by the specification, which states that the "show structure" may be "presented sequentially and/or concurrently." *Id.* at 7:41-42.

For these reasons, the Court will not construe a "show structure of nodes" as a "sequenced path."

B. "Multidimensional show structure of nodes"

Robocast's Proposed Construction:	multiple concurrent and/or sequential paths through a plurality of nodes defining an arrangement for presentation of content
Defendants' Proposed Construction:	show structure of nodes, in which the data specifies at least two sequenced paths that branch at a common node (any other construction would be indefinite)
Construction of the Court:	show structure of nodes, in which the nodes are presented concurrently for at least some portion of the show

The parties next dispute the construction of "multidimensional show structure of nodes." The term is used in claim 37 as follows: "creating a multidimensional show structure of nodes, each node identifying a resource from a plurality of accessible resources." The dispute of scope here is whether the "multidimensional show structure of nodes" requires "at least two sequenced paths that branch at a common node," which is an element proposed by Defendants. Defendants argue that all of the figures show a "multidimensional show structure" as beginning at a common node, and then branching into two sequenced paths, citing Figs. 2C, 2E, and 2F of the `451 Patent (all showing paths branching from a common node). Defendants, however, do not cite anything that restricts the operation of a "multidimensional show structure" to this pattern. It is not difficult to imagine a "multidimensional show structure" that operates in the reverse order, i.e., it begins with a display of multiple nodes and then finishes by collapsing into a single node. This is supported by the following passage from the specification:

> Thus, a show structure may include one or more paths that can be presented sequentially and/or concurrently. It is noted that a path may include portions that is presented sequentially and other portions that are presented concurrently. Furthermore, one node to many nodes paths and many nodes to one node paths can also define a show structure.

Id. at 7:41-46. Here, the specification specifically discloses that "many nodes to one node paths can define a show structure." Thus, a path need not begin at a common node. Instead, it may conclude at a common node. In fact, there is nothing that requires the path of the "multidimensional show structure" to span a common node at all. While the embodiments may disclose a common node, Claim 37 does not. Claim 37 only contains the limitation that the "contents of said at least two nodes are displayed during an overlapping time period." This would allow for a "multidimensional show structure" where multiple resources are displayed simultaneously for the entire duration of the show. The prosecution history is supportive of this understanding. (D.I. 135, Exh. A at 6-7) (description of a multidimensional show structure

displaying three resources simultaneously without a common node). Thus, there is no need for a common node at any point within a "multidimensional show structure."

The parties also dispute whether a "multidimensional show structure" is directed to paths that are at least in part presented concurrently. Defendants urge that this requirement is what makes a "multidimensional show structure" distinct from a "show structure" in general. Robocast argues that a "multidimensional show structure" only requires there to be multiple paths, and that two paths presented sequentially would satisfy the claim. The Court agrees with Defendants. First, the word "multidimensional" itself suggests a distinct visual aspect to the "multidimensional show structure of nodes" display. From the user's point of view, the only choice between the proposed constructions that offers a distinct visual component is that of Defendants, where the user would view multiple show structures at the same time. Further, claim 37 itself makes clear that "at least two nodes are spanned concurrently" and "contents of said at least two nodes are displayed during an overlapping time period." As the nodes themselves form the substance of the "multidimensional show structure of nodes," there is no persuasive argument that concurrent presentation of content, i.e., the display of at least two nodes during an overlapping time period, is not a hard and fast requirement of a "multidimensional show structure."

Robocast cites description from the prosecution history stating that "a multidimensional show structure may include one or more paths that can be presented sequentially and/or concurrently" in support of the argument that concurrent presentation is not required, i.e., a show may entirely consist of concurrent paths. (D.I. 135, Exh. A at 6-7). This does not compel the Court to adopt Robocast's construction. It is a bedrock principle of patent law that the claims determine the scope of the invention. Robocast's interpretation contradicts the claim language,

which requires the "multidimensional show structure" to span at least two nodes concurrently and automatically display the contents of at least two nodes during an overlapping time period. This prosecution history may be squared with the claims when interpreted as an emphasis that the entirety of the "multidimensional show structure" path or paths do not need to consist of a concurrent presentation. It is perfectly allowable for the path to transition between concurrent and sequential display of nodes within the same show, and thus the nodes are displayed "sequentially and/or concurrently." However, for a "show structure" to be "multidimensional," there must be some period of concurrent presentation.

For these reasons, the Court construes "multidimensional show structure of nodes" as "show structure of nodes, in which the nodes are presented concurrently for at least some portion of the show."

C. "Nodes"

Robocast's Proposed Construction:	an identifier for a resource
Defendants' Proposed Construction:	data identifying a resource that includes an address to the resource and the duration for which the resource's content is to be presented by default
Construction of the Court:	an identifier of a resource that includes an address to the resource and the duration for which the resource's content is to be presented by default

The parties dispute the construction for "nodes" as used in claims 1, 10, 22, 37, and 39. There are two disputes of scope. The first is whether a "node" must "include an address to the resource." The second is whether the "node" must include a "duration for which the resource's content is to be presented by default." Both of these proposed elements are offered by

Defendants. The "address to the resource" issue is evidently the less important of the two disputes, as the parties expended almost no effort briefing the issue. It does follow, however, that if a "node" is to identify an on-line resource, the "node" must have some knowledge of the resource's location. A "node" may thus be construed to include an "address."

The second issue of whether a durational component must be included within a "node" was determined via the construction of "show structure of nodes." The Court has construed "show structure of nodes" to require durational information for the display of each resource. The "node" is the component that causes a resource to be displayed and is also the only component disclosed as having durational information. *See, e.g.,* `451 Patent at 3:26-31. The Court thus agrees with Defendants' proposed construction.

D. "Plurality of accessible resources"

Robocast's Proposed Construction:	multiple physical or virtual sources of information, each separately accessible to a user via the internet.
Defendants' Proposed Construction:	plain and ordinary meaning
Construction of the Court:	plain and ordinary meaning

The next term is "plurality of accessible resources." The term is used as follows in claim 1:

> A method for displaying on a user's computer, content derived from a plurality of resources in an organized arrangement comprising the steps of:
>
> creating a show structure of nodes, each node identifying a resource from a plurality of accessible resources[.]

There are two disputes of scope. The first is whether "accessible" is restricted to accessing content via the internet, or whether it may also include locally accessible content. The second is whether each "resource" must be "separately" accessible. Both of these requirements are proposed by Robocast and opposed by Defendants, who instead offer the plain and ordinary meaning.

The Court does not find that "accessible" is restricted to accessing content over the internet. "Accessible" is not a coined term and has a plain and ordinary meaning. That meaning is broad. Locally stored content would naturally be thought of as "accessible," absent contrary instruction elsewhere. There is no contrary instruction. There is no prosecution history distinguishing this term from prior art.

"Accessible" is likewise not explicitly defined in the specification as only accessing internet content. Robocast does cite various portions of the specification that describe resources accessed over the internet, apparently in support of an implicit definition argument. *See, e.g.*, `451 Patent at 2:57-62. The passages are not sufficient to implicitly define "accessible" as restricted to the access of internet resources, as the accessing of an executable file is also described. *Id.* at 2:58. Executable files typically run software programs that would be locally stored on a user's computer. "Accessible" is thus not consistently used in a manner that impliedly redefines the term.

Robocast next employs a claim differentiation argument, arguing that dependent claim 3 adds the accessing local resource subject matter to the patent, and thus independent claim 1 should not cover accessing local resources. (D.I. 137, p. 92). Robocast misapplies the doctrine of claim differentiation, as a dependent claim must be narrower than its corresponding

independent claim. This means that independent claim 1 should be presumed to include accessing local resources, as well as non-local resources over the internet.

Finally, Robocast argues that the failure to adopt its construction fails to give meaning to the word "accessible," conflicting with the maxim that "[a] claim construction that gives meaning to all the terms of the claim is preferred over one that does not do so." *Merck & Co. v. Teva Pharm. USA, Inc.*, 395 F.3d 1364, 1372 (Fed. Cir. 2005). The Court agrees that it is indeed preferable to avoid constructions that result in surplusage, but to avoid surplusage by incorrectly narrowing a widely understood term like "accessible" would be a worse result than adopting a construction with some redundancy.

Robocast next argues that the "resources" of a "plurality of accessible resources" must be "separately accessible." This is supposedly in order to "clarif[y] the inherent nature of the plural or multiple resources that may be accessed with a single mouse click." (D.I. 137, p. 86). Robocast, however, does not cite any intrinsic or extrinsic evidence supporting this construction. Robocast argues that the construction simply captures the concept of the "mouse click" associated with the access of internet content, but the proposed construction does not refer to a mouse click or any user input whatsoever. The Court thus sees no reason to adopt Robocast's construction.

For these reasons, the Court adopts the plain and ordinary meaning of "plurality of accessible resources."

E. "Content"

Robocast's Proposed Construction:	user selectable information
Defendants' Proposed Construction:	plain and ordinary meaning

Construction of the Court:	plain and ordinary meaning

The next term is "content." "Content" is used as follows in claim 1:

> displaying a content corresponding to each of said resources automatically in accordance with said show structure, wherein said step of creating further comprises the step of providing an interactively variable duration information, representing the duration within which a corresponding content to said resource is being displayed so as to enable a user to vary said duration.

"Robocast" argues that "content" should be construed as "user selectable information," while Defendants propose the plain and ordinary meaning. Robocast argues that the Court should depart from the plain and ordinary meaning of "content," because "user selectable information" more accurately captures the invention's goal to automate the presentation of content by eliminating user selections.

The Court holds that "content" should be construed according to its plain and ordinary meaning. "Content" is a word with a widely accepted meaning that is readily understood by the jury. Robocast has provided no evidence of disclaimer, an explicit or implied definition, or any special meaning justifying departure from the plain and ordinary meaning. Further, the specification states that "content" is a broad category that includes "text, images, animations and sounds[.]" `451 Patent at 9:15-18. The playback of sound content on a web-site may occur regardless of whether a user selects or does not select that sound content, and thus would not naturally be thought of as "user selectable information." Such sound content would wrongly fall outside Robocast's proposed construction. For this reason, the Court construes "content" according to its plain and ordinary meaning.

F. "On-line search"

Robocast's Proposed Construction:	an internet search
Defendants' Proposed Construction:	a search of the world-wide-web
Construction of the Court:	an internet search

"On-line search" is the next term. It is used as follows in claim 22 of the `451 Patent:

> performing an on-line search, in response to which a plurality of search results and their corresponding URL resources are received;
>
> automatically creating and storing a show structure of nodes, each node identifying a resource from a plurality of accessible resources via said communications network wherein said show structure is created in response to said search results received in response to said on-line search;

There are two disputes of scope. As to the first, Robocast argues that an "on-line search" should be broadly construed as a search of the internet, while Defendants argue that an "on-line search" should be more narrowly construed as a search of the world-wide-web. As to the second, Robocast argues that the search must be on the internet, while Defendants argue that the search must be of the world-wide-web.

The parties debate the significance of the claim language of an "on-line search" as producing "URL resources." Robocast argues that URLs are used to locate content on the internet, which includes the world-wide-web, whereas Defendants insist that URLs are limited to only the world-wide-web. The Court sees no reason to limit an "on-line search" as argued by Defendants. Although there is language in the patent that seems to specify that the "on-line search" is limited to content of the world-wide-web, there is also language describing the search as of URLs on the internet at large. *See* `451 Patent at 16:64-66. Robocast also cites extrinsic evidence supporting its argument that URL addresses include but are not limited to the world-wide-web. (D.I. 135, Exh. E at 1140). Defendants argue that Robocast's proposal is flawed

because it does not specify whether the search is "of" the Internet or whether it merely "concerns" the Internet. This is not a compelling problem. The claim language makes clear that the search must produce URL resources. URL resources are only found on the internet. If the act at issue is not an internet search that provides URL resources, it will fall outside the claim. No further clarification is needed.

For these reasons, the Court adopts Robocast's proposal.

G. "Interactively variable duration information"

Robocast's Proposed Construction:	the amount of time allocated for the display of content corresponding to a resource that may be varied by the user during display
Defendants' Proposed Construction:	a parameter specifying how long a content is to be displayed by default before a subsequent content is displayed, where the viewer of the content can change the parameter
Construction of the Court:	a parameter specifying how long a content is to be displayed by default before a subsequent content is displayed, where the viewer of the content can change the parameter

The next term is "interactively variable duration information." The term is used in claim 1 of the `451 Patent as follows:

> displaying a content corresponding to each of said resources automatically in accordance with said show structure, wherein said step of creating further comprises the step of providing an interactively variable duration information, representing the duration within which a corresponding content to said resource is being displayed so as to enable a user to vary said duration.

Defendants argue that before the "show structure" is played by a user, a "duration information" must be created. Accordingly, the "duration information" is a parameter that the user can then interact with in order to vary the display of each resource. Robocast disagrees, arguing that all

that is required is for the user to maintain control over the actual presentation of the resource during the "displaying" step, and that no duration information need be provided during the "creating a show structure of nodes" step.

The Court agrees with Robocast that the user should be able to vary the duration of the content during show structure playback. This is the "interactive" component of the claim. The Court, however, also finds that some duration information must be provided when the show structure of nodes is created. Whether the software automatically assigns a preset time period or the user chooses one, the "interactively variable duration information" is provided contemporaneously with "said step of creating [a show structure of nodes]." The Court further finds that "parameter" is a helpful concept for construction. In computer science, "parameter" is a very broad term that simply refers to "a variable that must be given a specific value during the execution of either a computer program or a procedure within a program."[3] Here, the "duration information" may be understood to be synonymous with a "parameter," as that timing information is the variable that will specify how long a particular content will be displayed. For these reasons, the Court adopts Defendants' proposed construction.

H. "At least two of said nodes are spanned concurrently"

Robocast's Proposed Construction:	nodes are accessed such that the content corresponding to at least two nodes can be displayed during an overlapping time period
Defendants' Proposed Construction:	indefinite (at minimum, concurrently requires at the same moment in time)

[3] This definition is available at http://www.thefreedictionary.com/parameter. Although the definition is a recent one and thus not precisely contemporaneous with the filing of the patent in 1997, much older dictionaries show that the "parameter" concept has remained unchanged for decades. *See Webster's New World Dictionary, College Edition* 1061 (12 ed. 1968) (defining "parameter" in "mathematics" as "a quantity or constant whose value varies with the circumstances of its application[.]")

Construction of the Court:	nodes are accessed such that the content corresponding to at least two nodes is accessed at the same time

The next term is "at least two of said nodes are spanned concurrently." The phrase is used as follows in claim 37 of the '451 Patent:

> creating a multidimensional show structure of nodes, each node identifying a resource from a plurality of accessible resources;
>
> without requiring user input accessing each of said resources identified by each of said nodes wherein at least two of said nodes are spanned concurrently;
>
> automatically displaying a content corresponding to each of said resources in accordance with said show structure, wherein contents of said at least two nodes are displayed during an overlapping time period.

Defendants argue that "spanned concurrently" is meaningless and thus the phrase is indefinite, while Robocast argues that the "spanned concurrently" language is what allows the system to access the nodes so that nodes' content may be displayed during an overlapping time period.

Defendants argue that the term is indefinite because the spanning of nodes requires at least three nodes, yet the claim allows for "at least two nodes spanned concurrently." The Court agrees that for a "show structure of nodes" to contain "nodes" that are "spanned concurrently," the entire structure must have at least three nodes. The fact, however, that the entire show structure must have at least three nodes does not mean all three nodes are spanned concurrently. It is possible for only two of the nodes to meet this requirement. For example, if two nodes branched from a common node, and those two nodes were to be accessed simultaneously, then those two branching nodes would be "spanned concurrently," while the initial common node would not. Thus, the requirement for a third, non-spanned node to be present would not violate

the limitation that a multidimensional show structure may function with only two nodes "spanned concurrently."

The Court does not, however, accept Robocast's construction. Whether the content corresponding to at least two nodes has to be displayed as the same time is controlled by the "automatically displaying" limitation, not the "without requiring" limitation. This is not inconsistent with the file history. (*See* D.I. 135, Exh. J at 12). The Court's construction also recognizes the plain meaning of "concurrently."

I. "Persistent content window"

Robocast's Proposed Construction:	a designated window for displaying content to a user
Microsoft's Proposed Construction:	indefinite
Construction of the Court:	a designated window for displaying content to a user

The next term is "persistent content window." It is used in claim 26 as follows:

> The method in accordance with claim 25 further comprising the step of formatting said dynamic content for displaying within a persistent content window on said user's terminal.

Microsoft argues that this term is indefinite, because it is unclear whether the word "persistent" modifies "content" or "window." The Court disagrees that any such ambiguity is so insoluble as to make this term indefinite. The show structure of nodes is generally aimed at streamlining the display of different types of content in a single sitting. "Persistent content window," which is one method through which the content of the show structure may be viewed, should be construed consistent with this understanding. Accordingly, it makes more sense to apply the "persistent" modifier to the window rather than to the content displayed within the window, because a main

aim of the invention is to facilitate the display of multiple types of content as the show structure of nodes transitions from one resource to the next. The display of individual pieces of content is thus generally a transitory, not persistent, experience. In contrast, there is no competing aim that undermines construing a window as persistent. The Court thus adopts Robocast's proposed construction.

J. "Without requiring user input"

Robocast's Proposed Construction:	plain and ordinary meaning
Microsoft's Proposed Construction:	without any user action
Construction of the Court:	plain and ordinary meaning

The next term is "without requiring user input." It is used as follows in claim 1: "without requiring user input, automatically accessing a plurality of said resources each of said resources identified by each of said nodes[.]" The dispute of scope here is whether the term excludes from the claim any act at all by the user, including a "triggering event" to commence the show structure of nodes. Microsoft argues that this is the only possible interpretation of this unambiguous claim language, and that adopting Robocast's construction would fail to give meaning to the term. Robocast disagrees, arguing that the "without requiring user input" term only modifies the accessing step, citing numerous passages from the specification that show the user triggering the commencement of the show. The Court agrees with Robocast, as the specification makes clear that the user causes "[a] triggering event, such as a mouse click on a single 'link' commences the presentation of a series of resources instead of one resource at a time." '451 Patent at 2:53-56. Microsoft argues that this results in surplusage, as some of the claims already state that the resources are accessed automatically, and "without requiring user

input" should be construed to have an independent meaning. While the Court recognizes the preference for a construction that gives meaning to all the terms of a claim rather than a construction that causes some surplusage, even worse would be a construction clearly at odds with the specification.[4] This is especially true where the applicant explained during prosecution that the redundant language was inserted to clarify the scope of the claim, not place an additional limitation, as occurred here. (*See* D.I. 135, Exh. G at 11).

For these reasons, the Court adopts Robocast's proposed construction.

K. "In accordance with said show structure"

Robocast's Proposed Construction:	plain and ordinary meaning
Defendants' Proposed Construction:	in the order and for the duration specified in the show structure
Construction of the Court:	plain and ordinary meaning

As the dispute of scope was resolved with the construction of "show structure of nodes," the Court adopts the plain and ordinary meaning of "in accordance with said show structure," consistent with its previous construction.

L. "Providing"

Robocast's Proposed Construction:	plain and ordinary meaning

[4] Microsoft's proposal would narrow the invention to the point of absurdity, as any software that did not run automatically at computer start up would require some action to play the show structure program and thus be outside the claim.

Microsoft's Proposed Construction:	choosing
Construction of the Court:	plain and ordinary meaning

"Providing" is used in claim 1 as follows: "wherein said step of creating further comprises the step of providing an interactively variable duration information." Robocast proposes the plain and ordinary meaning. Microsoft argues that "providing" should be construed as "choosing" because the creator of a show structure must choose a value for the duration according to the disclosed embodiments. *See* `491 Patent at 15:37-45. The Court does not agree that "providing" should be limited to "choosing," because that would exclude show structure software that automatically assigns a default durational setting when the user does not specify one. Such a standard software function would fall within the language of "providing." For this reason, the Court construes "providing" according to its plain and ordinary meaning.

M. "Search results"

Robocast's Proposed Construction:	plain and ordinary meaning
Microsoft's Proposed Construction:	results of a search not including URLs
Construction of the Court:	plain and ordinary meaning

The next term is "search results." The term is used as follows in claim 22: "performing an on-line search, in response to which a plurality of search results and their corresponding URL resources are received[.]" Robocast proposes the plain and ordinary meaning of this term, while

Microsoft proposes "results of a search not including URLs." Microsoft argues that this construction is justified because the claim mentions "search results" and "URL resources" as distinct things.

The Court is not convinced that Microsoft's construction is justified. The claim makes clear that the URL resources are received "in response" to an on-line search, strongly suggesting they can understood to be a part of the search results. This, combined with how the URL resources are described as "corresponding" to the search results, most naturally suggests that the URL resources are part and parcel of "search results." For this reason, the Court adopts the plain and ordinary meaning of "search results."

N. "Wherein said show structure is created in response to said search results received in response to said on-line search"

Robocast's Proposed Construction:	plain and ordinary meaning
Defendants' Proposed Construction:	wherein the receipt of search results triggers the creation of a show structure using the search results
Construction of the Court:	plain and ordinary meaning

The next term is "wherein said show structure is created in response to said search results received in response to said on-line search." The phrase is used in claim 22 as follows:

> automatically creating and storing a show structure of nodes, each node identifying a resource from a plurality of accessible resources via said communications network wherein said show structure is created in response to said search results received in response to said on-line search[.]

Defendants argue that the term should be construed so that "triggering" is used to describe how the search results cause the creation of a show structure. This is supposedly to account for

various statements the applicant made to overcome rejections. The applicant did insist that the novel feature of claim 22 was how the show structure of nodes is "automatically" created in response to the search results. (*See, e.g.*, D.I. 135, Exh. T at 5-6, 24-46). According to Defendants, "triggering" properly emphasizes how the show structure is automatically created in response to the search results. Fatal to Defendants' argument is the fact that the applicant never used the word "triggering" during prosecution. He instead used the words "a show structure of nodes is automatically created and stored...in response to the search results received in response to the on-line search." *Id.* at 5. This is equivalent to the language that made its way into the allowed claim, and the insertion of "triggering" into the claim, when that word was never used to describe the invention and is not necessary to resolve a dispute of claim scope, is improper. The possibility that the claim may not be easy for a jury to understand does not justify imposing extraneous language into the claim, as it is not an unusual task in a patent case for jurors to parse through dense and complicated claim language. For these reasons, the Court will adopt the plain and ordinary meaning.

O. "Related to said selected category"

Robocast's Proposed Construction:	plain and ordinary meaning
Microsoft's Proposed Construction:	within the category selected in the preceding step
Construction of the Court:	plain and ordinary meaning

The next term is "related to said selected category." The term is used as follows in claim 39: "selecting a category from a predefined list of categories; performing an on-line search

related to said selected category, in response to which a plurality of search results and their corresponding URL resources are received[.]" Robocast offers the plain and ordinary meaning, while Microsoft offers "within the category selected in the preceding step." Microsoft argues that "within the category selected" best captures the two steps of the claim, but the claim itself says "related to the category selected," which is broader than "within the category selected," and the Court sees no reason to replace the broader word "related to" with the narrower word "within." To the extent Microsoft argues that its construction clarifies the chronological nature in which the steps are performed, no clarification is necessary, as the claim makes clear that the category is first selected, and the search is then performed. For these reasons, the Court adopts Robocast's proposed plain and ordinary meaning construction.

This concludes the Court's claim construction of the `451 Patent. The parties are ordered to jointly submit a claim construction order suitable for submission to a jury within 14 days.