

IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF DELAWARE

RECENTIVE ANALYTICS, INC.,	)	
	)	
Plaintiff,	)	
	)	
v.	)	C.A. No. _____
	)	
FOX CORPORATION, a Delaware	)	<b>JURY TRIAL DEMANDED</b>
corporation; FOX BROADCASTING	)	
COMPANY, LLC, a Delaware limited	)	
liability company,	)	
	)	
Defendants.	)	

**COMPLAINT FOR PATENT INFRINGEMENT AND JURY DEMAND**

Plaintiff, Recentive Analytics, Inc. (“Recentive” or “Plaintiff”), by and through its attorneys, for its Complaint for Patent Infringement against Fox Corporation and Fox Broadcasting Company, LLC (collectively, “Fox” or “Defendants”), hereby alleges as follows:

**NATURE OF THE ACTION**

1. This patent infringement case is brought to protect the valuable inventions that Recentive Analytics, a Boston-based analytics company, created and has been developing since 2017 that enable users to optimize scheduling based on demand for live and televised events such as sporting events. In recognition of the value and novelty of Recentive’s inventions, the United States Patent and Trademark Office granted the company U.S. Patent Nos. 10,911,811 (the “811 patent”) and 10,958,957 (the “957 patent”) (collectively, the “Patents-In-Suit).

2. Specifically, Recentive has developed an automated predictive analytics tool tailored toward optimizing scheduling of live events and television broadcasts. Recentive’s predictive analytics tool generates network maps that optimize content on a regional basis to maximize viewership. Recentive’s proprietary technique allows for network maps to be updated

dynamically in response to real time events and conditions—a significant improvement over conventional static maps used to schedule and broadcast events prior to Recentive’s invention.

3. Recentive’s innovative platform also offers the benefit of customization, enabling users to optimize the network maps based on particular user-selected parameters. Using its patented technology, Recentive builds and offers to its users predictive analytics platforms that enable faster and better predictions leading to improved allocation of resources. Many television networks, sports teams and live entertainment entities (e.g., the National Football League (NFL), Columbia Broadcasting System (CBS), Boston Red Sox, Atlanta Falcons, Tampa Bay Buccaneers, the United States Tennis Association and the Dallas Stars) have recognized the value provided by Recentive’s technology.

4. Fox is one of the largest broadcasters of sports and live event content in the country. Fox was aware of Recentive’s software platform and technology at least by 2018. Instead of taking a license to Recentive’s patented technology, on information and belief, by at least early 2022, Fox began building its own internal predictive analytics platform to optimize scheduling of live sporting events.

5. By virtue of Recentive’s and Fox’s separate partnerships with the NFL, Fox was aware of and had access to the optimal station mappings created using Recentive’s predictive analytics platform for regional scheduling of NFL football games for multiple seasons, including specifically the 2022–2023 season. Fox, however, has not used Recentive’s network maps to schedule regional broadcasts of NFL games. Instead, on information and belief, Fox is using infringing predictive analytics software to optimize scheduling and broadcasts of NFL games on its regional stations.

### **THE PARTIES**

6. Recentive Analytics is a Delaware corporation that specializes in providing artificial intelligence solutions for the live entertainment industry. Recentive has its principal place of business at One Gateway Center, Newton, MA 02458.

7. Defendant Fox Corporation is a Delaware corporation with a principal place of business at 1211 Avenue of the Americas, New York, New York.

8. Defendant Fox Broadcasting Company, LLC (“Fox Broadcasting”) is a Delaware limited liability company with principal places of businesses at 1211 Avenue of the Americas, New York City, New York and in Los Angeles, California. Upon information and belief, Fox Broadcasting is responsible for scheduling and distributing content to Fox’s regional affiliate stations. Fox Broadcasting is a wholly-owned subsidiary of Fox Corporation.

### **JURISDICTION AND VENUE**

9. This action arises under the patent laws of the United States, 35 of the United States Code, including 35 U.S.C. § 271. This Court has subject matter jurisdiction over this matter pursuant to 28 U.S.C. §§ 1331 and 1338(a) because all claims in this action arise under the patent laws of the United States.

10. This Court has personal jurisdiction over Fox Corporation and Fox Broadcasting because both entities are organized and existing under the laws of the State of Delaware. In addition, the Fox Defendants have committed acts within Delaware giving rise to this action and have established minimum contacts with this forum such that the exercise of jurisdiction over the Fox Defendants would not offend traditional notions of fair play and substantial justice. The Fox Defendants, directly and through subsidiaries or intermediaries (including distributors, retailers, and others), conduct substantial business in this forum, including (i) broadcasting sporting events

to television stations and individuals residing in Delaware; and (ii) regularly doing or soliciting business, engaging in other persistent courses of conduct, and/or deriving substantial revenue from services provided to companies and individuals in Delaware.

11. Venue in this judicial district is proper under 28 U.S.C. §§ 1391(b)-(d) and 1400(b) because the Fox Defendants reside in Delaware.

### **THE PATENTS-IN-SUIT**

12. On February 2, 2021, United States Patent No. 10,911,811 (“the ’811 patent”) entitled “Systems and Methods for Automatically and Dynamically Generating a Network Map” was duly and legally issued by the USPTO. A copy of the ’811 patent is attached hereto as Exhibit A. On March 23, 2021, United States Patent No. 10,958,957 (“the ’957 patent”) entitled “Systems and Methods for Automatically and Dynamically Generating a Network Map” was duly and legally issued by the USPTO. A copy of the ’957 patent is attached hereto as Exhibit B.

13. Recentive is the owner and assignee of both the ’811 and ’957 patents and holds the right to sue for and recover all damages for infringement therefore, including past infringement.

14. The Patents-in-Suit are directed to improved methods and systems for generating network maps used to broadcast events on multiple channels. Prior to Recentive’s invention, conventional network map technology suffered from many drawbacks. For example, conventional processes and systems used to generate network maps were static and, as a result, incapable of responding to changing conditions. Furthermore, conventional processes were fixed on one default configuration, unable to consider multiple possible schedule permutations or configurations, and unable to forecast the impact of a proposed schedule change.

15. Recentive recognized that providing real-time forecasts via predictive analytics helps users understand future outcomes to drive more impactful business decision making. The

inventions of the '811 and '957 patents were conceived in response to the need for a predictive software platform that generates optimized network maps based on real time data. To solve these problems and fulfill users' needs, Recentive's patented invention is a computer implemented method that provides users the ability to generate and optimize network maps based on user selected parameters and real time data. This improvement over conventional techniques allows companies to better predict future events (e.g., viewership), and therefore, optimizes their outcomes.

16. Recentive's approach was and remains unconventional—delivering markedly superior results to historic approaches, as evidenced by multiple, notable high-profile Recentive customers. Recentive's automated technique for generating network maps is 1) generated based on a computer algorithm designed to optimize a certain parameter (e.g., highest overall projected ratings), 2) based on real time data, and 3) dynamically updated based on changing conditions.

17. More specifically, the invention described and claimed in the Patent-in-Suit includes “a computer algorithm designed to optimize a particular parameter, such as overall television ratings for the NFL across all games, ratings for the NFL with a particular affiliate (CBS or FOX), ratings for the NFL in a particular market, with a particular audience, or at a particular time.” Ex. A ('811 patent) at 3:10-15. The underlying computer algorithm is “developed using a machine learning technique...[such as] a gradient boosted random forest, a regression, a neural network, a decision tree, a support vector machine, [or] a Bayesian network.” *Id.* at 3:20-26.

18. These features, and others, of the '811 patent are contained in the claims of the '811 patent and are directed to an improvement in the functioning of generating network maps, not to an abstract idea. For instance, claims 6–9 depend from claim 1 and claim that the generation of the network map that is “based on at least one of weather data, news data, or gambling data,” is

updated “based on a particular parameter” comprising “the overall rating or a projected rating in a certain market for the plurality of television stations,” and ultimately generates “the schedule for the first plurality of live events and the second plurality of live events”:

1. A computer-implemented method for dynamically generating a network map, the method comprising:

receiving a schedule for a first plurality of live events scheduled to start at a first time and a second plurality of live events scheduled to start at a second time;

generating, based on the schedule, a network map mapping the first plurality of live events and the second plurality of live events and the second plurality of live events to a plurality of television stations for a plurality of cities,

wherein each station from the plurality of stations corresponds to a respective city from the plurality of cities,

wherein the network map identifies for each station (i) a first live event from the first plurality of live events that will be displayed at the first time and (ii) a second live event from the second plurality of live events that will be displayed at the second time, and

wherein generating the network map comprises using a machine learning technique to optimize an overall television rating across the first plurality of live events and the second plurality of live events;

automatically updating the network map on demand and in real time based on a change to at least one of (i) the schedule and (ii) underlying criteria,

wherein updating the network map comprises updating the mapping of the first plurality of live events and the second plurality of live events to the plurality of television stations; and

using the network map to determine for each station (i) the first live event from the first plurality of live events that will be displayed at the first time and (ii) the second live event from the second plurality of live events that will be displayed at the second time.

\* \* \*

6. The method of claim 1, wherein generating the network map comprises generating the network map based on at least one of weather data, news data, or gambling data.

7. The method of claim 1, wherein the step of automatically updating the network map comprises optimizing the network map based on a particular parameter.

8. The method of claim 7, wherein the particular parameter comprises the overall rating or a projected rating in a certain market for the plurality of television stations.

9. The method of claim 1, further comprising, prior to the receiving step, generating the schedule for the first plurality of live events and the second plurality of live events.

Ex. A ('811 patent) at 9:65-10:32; 10:46-54.

19. Similar technical features are included in the claims of the '957 Patent, which is a continuation of and claims priority to the '811 Patent:

1. A computer-implemented method for dynamically generating a network map, the method comprising:

Obtaining a schedule for a first plurality of events scheduled to start at a first time and a second plurality of live events scheduled to start at a second time;

generating, based on the schedule, a network map mapping the first plurality of events and the second plurality of events and the second plurality of events to a plurality of television stations for a plurality of cities,

wherein each station from the plurality of stations corresponds to a respective city from the plurality of cities,

wherein the network map identifies for each station (i) a first event from the first plurality of events that will be displayed at the first time and (ii) a second event from the second plurality of events that will be displayed at the second time, and

wherein generating the network map comprises using a machine learning technique to optimize an overall television rating across the first plurality of live events and the second plurality of events;

automatically updating the network map on demand and in real time based on a change to at least one of (i) the schedule and (ii) underlying criteria,

wherein updating the network map comprises updating the mapping of the first plurality of events and the second plurality of events to the plurality of television stations; and

using the network map to determine for each station (i) the first event from the first plurality of events that will be displayed at the first time and (ii) the second event from the second plurality of events that will be displayed at the second time.

\* \* \*

7. The method of claim 1, wherein generating the network map comprises generating the network map based on at least one of weather data, news data, or gambling data.

8. The method of claim 1, wherein the step of automatically updating the network map comprises optimizing the network map based on a particular parameter.

9. The method of claim 8, wherein the particular parameter comprises the overall rating or a projected rating in a certain market for the plurality of television stations.

\* \* \*

12. The method of claim 1, further comprising, prior to the obtaining step, generating the schedule for the first plurality of events and the second plurality of events.

*See generally* Exhibit B.

20. The use of machine learning techniques to generate network maps that optimize an overall television rating across the first plurality of live events and the second plurality of live events provides an improvement to traditional, conventional techniques used to generate network maps for scheduling multi-event broadcasts.



21. Network maps that automatically update on demand and in real time based on changing schedule and/or criteria provides an improvement to traditional, conventional techniques used to generate network maps for scheduling multi-event broadcasts.

**FOX'S KNOWLEDGE AND  
INFRINGEMENT OF THE PATENTS-IN-SUIT**

22. On July 26, 2022, Recentive notified Fox by letter of the Patents-in-Suit. The July 26 letter expressed Recentive's concerns that Fox was developing and/or using a networking and mapping analytics tool for the scheduling and regionalization of events. The July 26 letter further invited Fox to engage in discussions regarding a possible business relationship with Recentive.

23. Receiving no response from Fox, on August 24, 2022, Recentive provided additional information to Fox regarding Fox's suspected infringement of the '957 patent. Again, Recentive invited Fox to engage in licensing discussions. Although the parties exchanged multiple correspondence between August and October of 2022, Fox terminated licensing discussion on October 18, 2022.

24. On November 14, 2022, Recentive sent a final letter to counsel for Fox requesting that Fox provide a sworn declaration from a person with knowledge of Fox's analysis of regional scheduling of sporting events that Fox is not using machine learning analytics to optimizing the scheduling of regional broadcasts of sporting events. Fox did not respond or provide Recentive the requested assurance that it was not infringing the Patents-in-Suit.

**COUNT I  
INFRINGEMENT OF THE '811 PATENT**

25. Recentive incorporates by reference the preceding paragraphs 1–24 of this Complaint as if fully set forth herein.

26. Recentive is the owner of the '811 patent with all substantial rights to the '811 patent, including the exclusive right to enforce, sue, and recover damages for past and future infringements.

27. The '811 patent is valid and enforceable through its expiration in October of 2039, and the patent remains valid and enforceable to collect damages for any and all infringement.

28. On information and belief, Fox has developed and is using an internal networking and mapping analytics tool for the scheduling and regionalization of events (the "Fox Mapping Tool"). The Fox Mapping Tool creates a schedule of events for content that occurs at discrete time slots (e.g., NFL Sunday games at 1pm ET and 4pm ET) for a plurality of cities.

29. Fox directly infringes the '811 patent under 35 U.S.C. § 271(a), literally and/or under the doctrine of equivalents, through its design, implementation, and use of the Fox Mapping Tool.

a. With respect to the preamble of claim 1 ('811 patent, at 9:66-10:4), the Fox Mapping Tool receives a schedule for a first plurality of events scheduled to start at a first start time and a second plurality of events scheduled to start at a second time. This infringing activity is demonstrated by content that Fox distributes at certain discrete time slots. For example, the online listing of NFL Sunday games carried by Fox at 1pm ET and 4pm ET (e.g., NFL Sunday games at 1pm ET and 4pm ET) (which is accessible at <https://www.sportsmediawatch.com/nfl-tv-schedule-2022-fox-nbc-cbs-espn-amazon-tnf-snf-mnf/>)

b. With respect to limitation 1[b] of Claim 1 ('811 patent, at 10:4-16), Fox operates numerous affiliate stations in many different U.S. cities and markets. *See e.g.*, <https://www.fox.com/article/fox-affiliates-5987ae7f60ec65001f88ecdd/> (listing Fox affiliate stations in various U.S. cities and markets). Accordingly, the Fox Mapping Tool maps the first plurality of events and the second plurality of events to a plurality of television stations for a plurality of cities.

**NFL TV Schedule**

See how to watch or stream every game with the 2022 NFL TV schedule on FOX, NBC, CBS, ESPN, ABC, NFL Network and Amazon Prime. Key dates: September 8 (start of season), January 14 (start of playoffs), February 12 (Super Bowl on FOX).

**NFL TV schedule**

Select week or window | How to stream

Week 8

Sunday, October 30

TIME ET	GAME	TV
9:30a	NFL International Series (London) Broncos – Jaguars	ESPN+
Broncos-Jaguars is only on ESPN+. You can sign-up for a \$9.99/month subscription here.		
1:00p	Live cut ins of all afternoon games	NFL RedZone Watch on Fubo TV
1:00p	Bears – Cowboys (85% of U.S.)	FOX
	Panthers – Falcons (9%)	
	Cardinals – Vikings (5%)	
1:00p	Raiders – Saints	CBS, Paramount+
	Steelers – Eagles	
	Dolphins – Lions	
	Patriots – Jets	
4:05p	Titans – Texans	
4:25p	49ers – Rams (47%)	FOX

c. Fox employs a “Vice President of Data Products and ML Strategy,” who, on information and belief, has been developing and/or overseeing developing of the Fox Mapping Tool. Accordingly, with respect to limitation 1[c] of Claim 1 ('811 patent, at 10:17-20), the Fox Mapping Tool generates its network map using a machine learning technique. Further, Fox uses the Fox Mapping Tool to optimize an overall television rating. *See*

<https://www.sportsmediawatch.com/2022/09/nfl-week-3-ratings-fox-espn-abc-multi-year-highs-viewership/> (“Week 3 of the NFL season brought multi-year ratings highs to both FOX and ESPN/ABC. Sunday’s NFL national window averaged a 13.4 rating and 26.4 million viewers on FOX, marking the highest rated and most-watched Week 3 telecast in eight years. Ratings increased 15% and viewership 14% from last year.”).

d. With respect to limitation 1[d] of Claim 1 (’811 patent, at 10:21-27), one significant value of a networking and mapping analytics tool that uses machine learning is the ability to update the network map in real time based on changing conditions. One information and belief, the Fox Mapping Tool updates network maps in real time based on changing conditions.

e. With respect to limitation 1[e] of Claim 1 (’811 patent, at 10:28-32), as determining (i) the first event from the first plurality of events that will be displayed at the first time, and (ii) the second event from the second plurality of events that will be displayed at the second time. On information and belief, the Fox Mapping Tool schedules and Fox broadcasts an individual NFL game on one of its affiliate stations at a 1pm Eastern timeslot, and schedules and broadcasts a second, individual NFL game on that affiliate station at a 4pm timeslot.

30. Fox had knowledge of the ’811 patent and, based on associated entertainment properties’ (e.g., NFL) public use and the literature available describing Recentive’s patented technology, Fox knew or should have known that its design and use of its internal networking and mapping analytics tool would lead to actual infringement of the ’811 patent claims. At a minimum, Fox has had notice of Recentive’s application for, and issuance of, the ’811 Patent since at least July 2022.

31. Recentive has been damaged by Fox's infringement of the '811 patent and is entitled to recover from Fox the damages sustained by Recentive as a result of Fox's acts in an amount adequate to compensate Recentive for Fox's infringement, subject to proof at trial.

32. On information and belief, despite Fox's knowledge of the '811 patent, Fox proceeded with its infringing activity, and with specific intent to cause (or willful blindness to causing) infringement of the '811 patent by developing and utilizing its internal networking and mapping analytics tool to generate automatically updated network maps based on a changed condition.

33. Fox's infringement of the '811 patent has been and continues to be willful and deliberate as Fox has acted in an objectively reckless manner in view of the high likelihood that its acts constituted infringement of the Recentive '811 patent and with full knowledge of Recentive's rights in the '811 patent.

**COUNT II**  
**INFRINGEMENT OF THE '957 PATENT**

34. Recentive incorporates by reference the preceding paragraphs 1–33 of this Complaint as if fully set forth herein.

35. Recentive is the owner of the '957 patent with all substantial rights to the '957 patent, including the exclusive right to enforce, sue, and recover damages for past and future infringements.

36. The '957 patent is valid and enforceable through its expiration in October of 2039, and the patent remains valid and enforceable to collect damages for any and all infringement.

37. Fox directly infringes at least Claims 1 and 14 of the '957 patent under 35 U.S.C. § 271(a), literally and/or under the doctrine of equivalents, through its design, implementation, and use of the Fox Mapping Tool.

38. The Fox Mapping Tool, using a machine learning technique, generates a network map scheduling a first plurality of events at a first start time and a second plurality of events at a second start time for television stations across a plurality of cities, that is updated in real time based on changing conditions, as recited in Claim 1 of the '957 patent.

39. Fox's technology, which, on information and belief, dynamically generates a network map, includes a system of one or more programmed computer processors comprising: obtaining a schedule for a first and second plurality of events to start at a first and second time, a machine learning technique that optimizes television ratings and updates based on a change to at least one of the (i) schedule, and (ii) underlying criteria, as recited in Claim 14 of the '957 patent.

40. Fox has had notice of Recentive's application for, and issuance of, the '957 Patent since at least August 2022.

41. Recentive has been damaged by Fox's infringement of the '957 patent and is entitled to recover from Fox the damages sustained by Recentive as a result of Fox's acts in an amount adequate to compensate Recentive for Fox's infringement, subject to proof at trial

42. Fox's infringement of the '957 patent has been and continues to be willful and deliberate as Fox has acted in an objectively reckless manner in view of the high likelihood that its acts constituted infringement of the Recentive '957 patent and with full knowledge of Recentive's rights in the '957 patent.

**PRAYER FOR RELIEF**

WHEREFORE, Recentive respectfully demands judgment in its favor and against Fox as follows:

a) Declaring that Fox has been and is currently infringing the '811 and '957 patents;

- b) Awarding damages as described in each of the above claims, in favor of Recentive and against Fox in amounts to be determined at trial;
- c) Enjoining Fox and its respective officers, agents, servants, employees and attorneys, and all other persons in active concert or participation with them, from using Recentive's patented technology and from selling, offering for sale, marketing or using any internal network and mapping analytics tool for the scheduling and regionalization of events covered by the '811 patent and/or the '957 patent;
- d) A determination that Fox's infringement of the '811 patent and/or the '957 patent was willful, and trebling of damages pursuant to 35 U.S.C. § 284;
- e) A judgment that this is an exceptional case and that Recentive be awarded its attorneys' fees incurred in this action pursuant to 35 U.S.C. § 285;
- f) An order awarding Recentive pre- and post-judgment interest on its damages;
- g) Costs and expenses in this action; and
- h) Awarding such other relief as the Court deems just and proper.

**JURY DEMAND**

Plaintiff Recentive respectfully demands a jury trial pursuant to Fed. R. Civ. P. 38 on all issues so triable.

Respectfully submitted,

/s/ Karen E. Keller

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John W. Shaw (No. 3362)  
Karen E. Keller (No. 4489)  
SHAW KELLER LLP  
I.M. Pei Building  
1105 North Market Street, 12th Floor  
Wilmington, DE 19801  
(302) 298-0700  
jshaw@shawkeller.com  
kkeller@shawkeller.com  
Attorneys for Plaintiff

OF COUNSEL:

Robert Frederickson III  
GOODWIN PROCTER LLP  
100 Northern Avenue  
Boston, MA 02210  
(617) 570 1000

Jenevieve N. Nutovits  
GOODWIN PROCTER LLP  
The New York Times Building  
620 Eighth Avenue  
New York, NY 10018-1405  
(212) 459-7351

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