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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* KEITH BALL

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Appeal 2015-000467  
Application 12/734,965  
Technology Center 2400

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Before CARLA M. KRIVAK, HUNG H. BUI, and  
JEFFREY A. STEPHENS, *Administrative Patent Judges*.

BUI, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant<sup>1</sup> seeks our review under 35 U.S.C. § 134(a) of the Examiner's final rejection of claims 1–15, which are all the claims pending in the application. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.<sup>2</sup>

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<sup>1</sup> According to Appellant, the real party in interest is THOMSON LICENSING.

<sup>2</sup> Our Decision refers to Appellant's Appeal Brief filed February 10, 2014 ("Br."); Examiner's Answer mailed July 30, 2014 ("Ans."); Final Office Action mailed December 14, 2012 ("Final Act."); and original Specification filed June 4, 2010 ("Spec").

STATEMENT OF THE CASE

*Appellant's Invention*

Appellant's invention relates to a method and system for "providing playlist based synchronized breakpoint calculation[s]" by taking "the playlists for the various regular/department (individual) channels and combin[ing] them with the playlist for a break-in channel to create a combined 'channel group' playlist that has an optimized synchronization." Spec. 1:6–8; 9:18–22, Abstract. The breakpoint is selected—from among endpoints of individual channels' playlists and an endpoint of an ideal duration interval that is based on common content/advertisement presentation frequency—so that a least amount of filler content is required to synchronize the respective endpoints of the individual channels to the selected breakpoint. Spec. 2:29–3:11; 11:17–20; 13:29–32. Optimized synchronization of individual channels at the breakpoint enables common channel play at the same time across the individual channels, at a time that maximizes available advertising time. Spec. 9:18–24.

Appellant's Figures 5A and 5B, illustrating breakpoint selection for individual channels' transition to a break-in channel, are reproduced below with additional markings for illustration.

- break  
frequency
1. Break-in frequency: 4 breaks per hour
  2. Break-in interval minimum: 14 minutes
  3. Break-in interval maximum: 16 minutes
  4. Filler minimum length: 10 seconds
  5. Filler maximum length: 1 minute

| Headline Channel | Media Duration | Accumulated Duration |
|------------------|----------------|----------------------|
| <b>Block1</b>    |                |                      |
| H_Media1         | 2:00           | 2:00                 |
| H_Media2         | 2:00           | 4:00                 |
| H_Media3         | 2:00           | 6:00                 |
| <b>Block2</b>    |                |                      |
| H_Media4         | 1:00           | 1:00                 |
| H_Media5         | 2:00           | 3:00                 |
| H_Media6         | 2:00           | 5:00                 |

total ad duration

FIG. 5A

playlists of individual channels CH1 and CH2

| CH1 Channel | Media Duration | Accumulated Duration | CH2 Channel | Media Duration | Accumulated Duration |
|-------------|----------------|----------------------|-------------|----------------|----------------------|
| CH1_Media1  | 3:00           |                      | CH2_Media1  | 3:00           |                      |
| CH1_Media2  | 4:00           |                      | CH2_Media2  | 3:00           |                      |
| CH1_Media3  | 3:00           |                      | CH2_Media3  | 3:45           |                      |
| CH1_Media4  | 3:00           |                      | CH2_Media4  | 3:00           |                      |
| CH1_Media5  | 2:30           |                      | CH2_Media5  | 3:00           |                      |
| CH1_Media6  | 3:00           |                      | CH2_Media6  | 2:30           |                      |
| CH1_Media7  | 3:00           |                      | CH2_Media7  | 3:00           |                      |
| CH1_Media8  | 4:30           |                      | CH2_Media8  | 3:00           |                      |
| CH1_Media9  | 3:00           |                      | CH2_Media9  | 2:30           |                      |
| CH1_Media10 | 4:00           |                      | CH2_Media10 | 3:00           |                      |
| CH1_Media11 | 3:00           |                      | CH2_Media11 | 3:00           |                      |
| CH1_Media12 | 3:00           |                      | CH2_Media12 | 3:45           |                      |
| CH1_Media13 | 2:30           |                      | CH2_Media13 | 3:00           |                      |
| CH1_Media14 | 3:00           |                      | CH2_Media14 | 3:00           |                      |
| CH1_Media15 | 2:30           |                      | CH2_Media15 | 2:30           |                      |
| CH1_Media16 | 3:00           |                      | CH2_Media16 | 2:30           |                      |

selected breakpoint

FIG. 5B

Figures 5A and 5B depict tables of individual channel playlists and break-in channel playlist definitions, for determining an optimal breakpoint for a transition between the individual channels and the break-in channel.

Spec. 4:14–17.

As shown in Appellant's Figure 5A, an ideal duration interval for an individual channel's content is 9 minutes, which is the difference between a break interval duration of 15 minutes (corresponding to an advertisement break frequency of 4 breaks per hour) and a break-in time (advertisement duration) of 6 minutes. Spec. 14:10–14. Further, as shown in Appellant's Figure 5B, a breakpoint is selected at 10 minutes within playlists of individual channels CH1 and CH2, at which time CH1 will have fully played CH1\_Media1, CH1\_Media2, and CH1\_Media3 totaling  $3+4+3=10$  minutes without any filler added; and CH2 will have fully played CH2\_Media1, CH2\_Media2, and CH2\_Media3 totaling 9 minutes and 45 seconds, thus requiring 15 additional seconds of filler to reach the 10 minute breakpoint. Spec. 14:31–15:1. Thus, the 10 minute breakpoint requires a total filler amount of *15 seconds*, which is less than the filler amount required to synchronize the individual channels to other hypothetical breakpoints at 9 minutes (requiring *5 minutes* of filler for channel synchronization), or at 9 minutes and 45 seconds (requiring *2 minutes and 45 seconds* of filler for channel synchronization). Spec. 14:23–30.

#### *Representative Claim*

Claims 1 and 11 are independent. Representative claim 1 is reproduced below with disputed limitations in *italics*:

1. A method for determining a synchronized breakpoint for playlists, comprising:
  - determining a break interval duration using a defined break frequency;
  - determining, using the determined break interval duration and break in content to be presented during the break interval

duration, an ideal duration interval for content of individual channels to be presented;

*compiling respective content portions of the individual channels to cause the respective playlists of the individual channels to approach a duration interval equal to the ideal duration interval; and*

*selecting as a breakpoint for the respective playlists of the individual channels, at least one of an endpoint of the ideal duration interval and an endpoint of the playlist compilation of an individual channel, whichever results in a least amount of filler content required to synchronize the respective endpoints of the individual channels to the selected breakpoint.*

Br. 18–20 (Claims Appendix).

*Evidence Considered*

|              |                    |               |
|--------------|--------------------|---------------|
| Weber et al. | US 2003/0236843 A1 | Dec. 25, 2003 |
| Zohar        | US 2006/0059042 A1 | Mar. 16, 2006 |

*Examiner's Rejections*

(1) Claims 1–10 stand rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter. Final Act. 2–3.

(2) Claims 1–15 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Weber and Zohar. Final Act. 4–10.

*Issues on Appeal*

Based on Appellant's arguments, the dispositive issues on appeal are: (1) whether the Examiner erred in rejecting claim 1 under 35 U.S.C. § 101 as being directed to non-statutory subject matter, and (2) whether the Examiner erred in rejecting claims 1 and 11 under 35 U.S.C. § 103(a) as being unpatentable over Weber and Zohar. In particular, the appeal turns on

whether the Examiner's combination of Weber and Zohar teaches or suggests

selecting as a breakpoint for the respective playlists of the individual channels, at least one of an endpoint of the ideal duration interval and an endpoint of the playlist compilation of an individual channel, whichever results in a least amount of filler content required to synchronize the respective endpoints of the individual channels to the selected breakpoint,

as recited in independent claims 1 and 11. Br. 7–17.

## ANALYSIS

### *Section 101 Rejection of Claims 1–10 as being directed to Non-Statutory Subject Matter*

The Examiner finds Appellant's process claim 1 fails to satisfy the machine-or-transformation (MoT) test originally outlined by the Federal Circuit in *In re Bilski*, 545 F.3d 943, 954 (Fed. Cir. 2008) (en banc). Final Act. 2–3; Ans. 4–5. In particular, the Examiner finds Appellant's process claim 1 is neither “tied to [a] particular machine” nor “transform[s] underlying subject matter (such as an article or material) to a different state or thing” as required by the MoT test. Final Act. 2. Thus, the Examiner finds the process of claim 1 “could be completely performed mentally, verbally or without a machine,” with all claims 1–10 being “directed to an abstract idea.” Final Act. 2–3, Ans. 5. In addition, the Examiner finds even if the process of claim 1 used a machine, the machine would “merely carr[y] out processes initiated by a human user.” Ans. 4–5.

Appellant contends the Examiner erred because Appellant's claim 1 requires a machine such as a computer or server to “compile content

portions of the individual channels” so that the compiled channels’ playlists approach a certain duration interval. Br. 9.

We are persuaded by Appellant’s arguments that claim 1 recites statutory subject matter. In reaching this decision, we note that Examiner’s rejection of claims 1–10 under 35 U.S.C. § 101 applies the law on patentable subject matter as it existed on December 14, 2012 (the mailing date of the Final Office Action). However, more recently, in *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 134 S. Ct. 2347 (2014), the Supreme Court has clarified the law regarding patentable subject matter.

In doing so, the Supreme Court, in *Alice*, set forth the “framework [previously set forth in *Mayo*] for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts.” *Alice Corp.*, 134 S. Ct. at 2355 (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289, 1294 (2012)). According to the Supreme Court’s framework, the first step in the analysis is to determine whether the claims at issue are directed to one of those concepts (i.e., laws of nature, natural phenomena, and abstract ideas). *Id.* If so, we must secondly consider the elements of the claims “individually and ‘as an ordered combination’” to determine whether there are additional elements that “‘transform the nature of the claim’ into a patent-eligible application.” *Id.* (quoting *Mayo*, 132 S. Ct. at 1297–8). Thus, *Bilski*’s MoT test is no longer the controlling test for patent eligibility.

We, therefore, apply the framework set out in *Alice* to Appellant’s claim 1. As the first step of the analysis, we find Appellant’s process claim 1 is directed to a “method for determining a synchronized breakpoint for playlists.” We interpret the claim to require a computer to perform the



process. Claim 1 recites the method comprises compiling content portions of individual channels to cause the playlists of the individual channels to approach a certain duration interval, and selecting a breakpoint for the playlists of the individual channels resulting in a least amount of filler content required to synchronize the channels to the breakpoint. These limitations of claim 1 describe a solution to a technological problem of switching between multiple programming channels, by implementing “seamless transitions between alternating department/local channel and headline programming” without the “channels being cut off at the switching point.” *See* Spec. 2:19–23. Because claim 1 is directed to a specific solution to a technological problem, we find claim 1 is not directed to an abstract idea.

As claim 1 is not directed to an abstract idea under the first step of the *Alice* analysis, we do not need to proceed to step two of the analysis. *See Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1336, 1339 (Fed. Cir. 2016).

For these reasons, we do not sustain the Examiner’s rejection of claim 1 and its dependent claims 2–10 as directed to non-statutory subject matter under 35 U.S.C. § 101.

*Section 103(a) Rejection of Claims 1–15  
as obvious over Weber and Zohar*

With respect to independent claims 1 and 11, the Examiner finds Weber teaches a method for determining a synchronized breakpoint for playlists having substantially all the claim limitations except for requiring an ideal duration interval determined using a break interval duration based on a break frequency. Final Act. 4–5 (citing Weber Fig. 4, ¶¶ 34–44). The

Examiner relies on Zohar for teaching this limitation. *Id.* at 5 (citing Zohar ¶ 35).

Appellant disputes the Examiner’s factual findings regarding Weber and Zohar. In particular, Appellant argues “there is absolutely no teaching or suggestion in Zohar or any combination of Weber and Zohar for at least synchronizing the respective playlists of the individual channels.” Br. 15. In addition, Appellant argues Weber and Zohar, alone or in any combination, do not teach or suggest ““selecting as a breakpoint for the respective playlists of the individual channels . . . **whichever results in a least amount of filler content required to synchronize the respective endpoints of the individual channels to the selected breakpoint.**”” Br. 12, 14–16. Thus, Appellant contends neither Weber nor Zohar teach or suggest determining “an **optimized** breakpoint for seamless transitions between alternating department/local channel and headline programming, which results in a **minimum of filler content needed for synchronizing the channels** and also results in a **minimum amount of lost advertising time.**” Br. 16.

We do not find Appellant’s arguments persuasive or commensurate with the scope of Appellant’s claims 1 and 11. Instead, we find the Examiner provides a comprehensive response to Appellant’s arguments supported by a preponderance of evidence. Ans. 7–13. As such, we adopt the Examiner’s findings and explanations. *Id.*

For additional emphasis, we note Appellant’s claims 1 and 11 do not recite or require optimization for “seamless transitions between alternating department/local channel and headline programming” as alleged by Appellant. Br. 16 (emphasis omitted). Appellant’s claims 1 and 11 also do

not recite or require selecting a breakpoint that “results in a minimum amount of lost advertising time” as Appellant contends. Br. 16. Instead, the claims simply recite, *inter alia*,

selecting as a breakpoint for the respective playlists of the individual channels, at least one of an endpoint of the ideal duration interval and an endpoint of the playlist compilation of an individual channel, whichever results in a least amount of filler content required to synchronize the respective endpoints of the individual channels to the selected breakpoint.

Ans. 8–9. These features are expressly disclosed by Weber’s Figure 4, reproduced below with additional markings, inserted in red, for illustration:

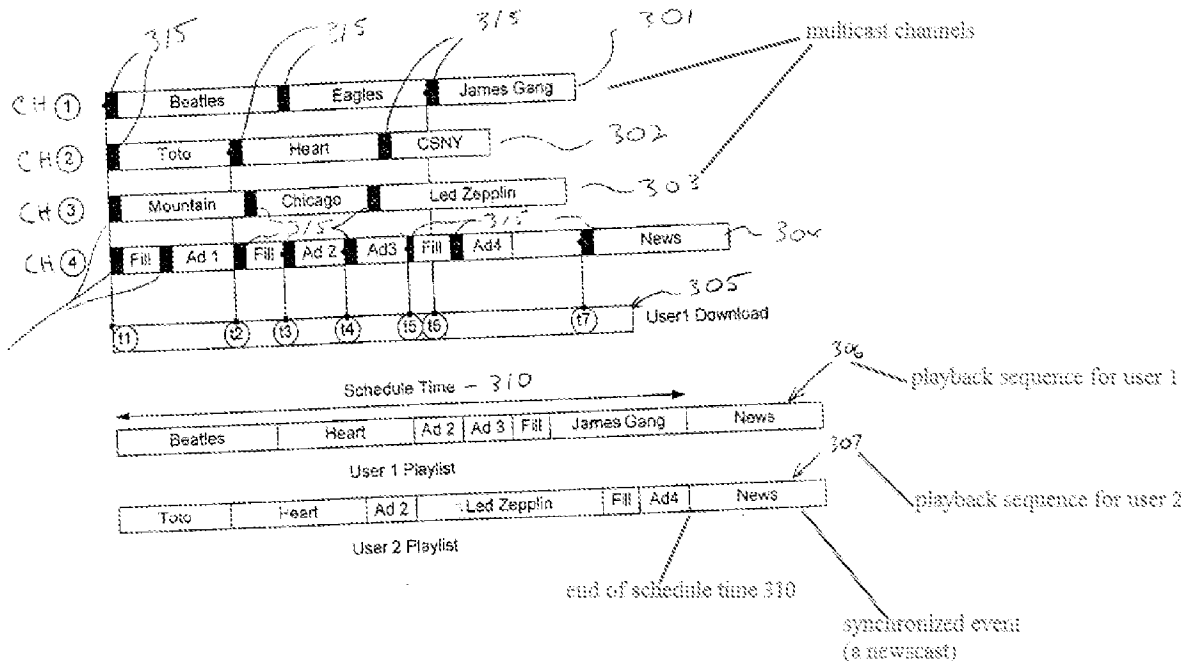


FIG. 4

Figure 4 is a timing diagram showing content scheduling and transmission to a plurality of users. Weber ¶ 13.

The Examiner finds Weber’s multicast channels teach individual channels, Weber’s schedule time 310 minus advertisement times teaches an ideal duration interval, and playback sequences 306 and 307 in the schedule time 310 compile content portions of the individual channels to cause the playlists of the individual channels to approach the ideal duration interval, as required by claim 1. Final Act. 4 (citing Weber ¶¶ 34–37, 39–44, Fig. 4). The Examiner further finds “the time when the News is played” in Weber’s Figure 4 teaches a breakpoint for respective playlists of the individual channels, the breakpoint being an endpoint of an individual channel’s playlist compilation (the end of a James Gang song in schedule time 310), as required by claim 1. Final Act. 4 (citing Weber ¶¶ 34–44, Fig. 4).

We agree with the Examiner’s factual findings. Weber’s channel playlists run during schedule time 310 to a breakpoint where the News segment starts, thereby teaching respective endpoints of the individual channels are synchronized to the breakpoint, as required by claim 1. Ans. 9, 12 (citing Weber Fig. 4); *see also* Weber ¶ 35 (“at the end of the schedule time **310**, a synchronized event for all users (a newscast) may be played.”). Appellant’s argument that Weber does not teach or suggest “synchronizing the respective playlists of the individual channels” (Br. 15) does not address the Examiner’s specific findings that the News’ start time in Weber’s Figure 4 is a breakpoint synchronizing playlists of the individual channels (Ans. 9, 12).

Appellant also argues Weber does not teach or suggest “selecting as a breakpoint for the respective playlists of the individual channels . . . **whichever results in a least amount of filler content required to synchronize the respective endpoints of the individual channels to the**

**selected breakpoint,”**” as required by claim 1. Br. 12, 14, 16. We disagree. As recognized by the Examiner, Weber’s breakpoint (“the time when the News is played”) results in a least amount of filler content (e.g., the Fill+Ad4 content for playback sequence 307) required to synchronize the respective endpoints of the individual channels (the ends of James Gang and Led Zeppelin songs in playback sequences 306, 307) to the breakpoint, as required by claim 1. Ans. 9–10, 12; Final Act. 4. Another breakpoint—e.g., an ideal duration interval endpoint at “schedule time 310 minus the commercial time”—would require “more filler content . . . than if the endpoint were the end of the playlist compilation of an individual channel, which includes the commercial time” matching the ends of James Gang and Led Zeppelin songs. Ans. 9–10 (citing Weber Fig. 4); Final Act. 16.

Appellant’s additional argument that Zohar does not teach the claimed breakpoint selection and synchronization of individual channels’ playlists is predicated upon an individual attack of Zohar when the Examiner’s rejection is based on a combination of Weber and Zohar. *See In re Keller*, 642 F.2d 413, 426 (CCPA 1981) (“one cannot show nonobviousness by attacking references individually where, as here, the rejections are based on a combination of references”). Br. 15–16. For example, contrary to Appellant’s characterization, Zohar is not relied upon for teaching Appellant’s claimed breakpoint selection and synchronization of channels’ playlists—Weber is. Final Act. 4. As correctly recognized by the Examiner, Zohar is cited for teaching the use of a break frequency to determine a break interval duration. Final Act. 5 (citing Zohar ¶ 35). As such, we agree with the Examiner that, in addition to breakpoint selection and synchronization of channels’ playlists as disclosed by Weber, other

parameters such as a break frequency and break interval duration as disclosed by Zohar can be used in Weber's playlist synchronization process. Ans. 12–13.

For the reasons set forth above, Appellant has not persuaded us of Examiner error. Accordingly, we sustain the § 103(a) rejection of dependent claims 2–10 and 12–15, which Appellant does not argue separately. Br. 16–17.

### CONCLUSION

On the record before us, we conclude Appellant has demonstrated the Examiner erred in rejecting claims 1–10 under 35 U.S.C. § 101 as being directed to non-statutory subject matter. However, we conclude Appellant has not demonstrated the Examiner erred in rejecting claims 1–15 under 35 U.S.C. § 103(a) as being unpatentable over Weber and Zohar.

### DECISION

We REVERSE the Examiner's final rejection of claims 1–10 under 35 U.S.C. § 101. However, we AFFIRM the Examiner's final rejection of claims 1–15 under 35 U.S.C. § 103(a). Because we have affirmed at least one ground of rejection with respect to each claim on appeal, the Examiner's final decision rejecting claims 1–15 is affirmed. *See* 37 C.F.R. § 41.50(a)(1).

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED