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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte LAMPROS KALAMPOUKAS, MANISH GUPTA, and
ZHENGXIANG PAN

Appeal 2020-000014
Application 15/941,561
Technology Center 2400

Before ROBERT E. NAPPI, JEAN R. HOMERE, and
JAMES R. HUGHES, *Administrative Patent Judges*.

HOMERE, *Administrative Patent Judge*.

DECISION ON APPEAL

I. STATEMENT OF THE CASE¹

Pursuant to 35 U.S.C. § 134(a), Appellant appeals from the Examiner’s decision rejecting claims 1–14, which constitute all of the pending claims.² Claims App. We have jurisdiction under 35 U.S.C. § 6(b).

¹ We refer to the Specification filed Mar. 30, 2018 (“Spec.”); the Final Office Action, mailed Feb. 12, 2019 (“Final Act.”); the Appeal Brief, filed May 15, 2019 (“Appeal Br.”); the Examiner’s Answer, mailed Aug. 27, 2019 (“Ans.”); and the Reply Brief, filed Sept. 30, 2019 (Reply Br.”).

² We use the word “Appellant” to refer to “applicant” as defined in 37 C.F.R. § 1.42(a). Appellant identifies Alphonso Inc. as the real party-in-interest. Appeal Br. 3.

An oral hearing was held in this appeal on September 23, 2020. A transcript of the oral hearing will be entered into the record in due course.

We reverse.

II. CLAIMED SUBJECT MATTER

According to Appellant, the claimed subject matter relates to a method and system for automatically detecting the presence of potential commercials in a video data stream. Spec., 2:11–12.

Figure 1 reproduced and discussed below, is useful for understanding the claimed subject matter:

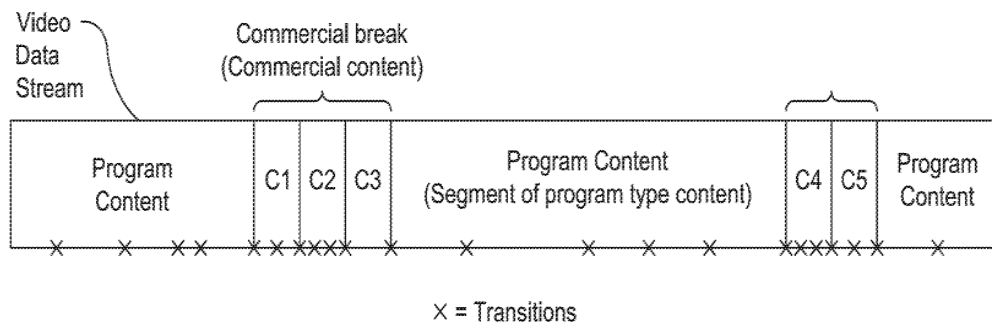


Fig. 1

Figure 1 above illustrates a video data stream including segments of program type content with interspersed commercial breaks (C1–C5) each having (i) an expected time length being an integer multiple of a first predetermined time and (ii) an overall time length not exceeding a second predetermined time length of predetermined lengths. *Id.* at 2:11–14, 4:22–27.

In particular, responsive to receiving the video data stream, a video processing engine records the time of each transition detected in the received data stream to calculate time differences between successive transitions therein. *Id.* at 2:14–16. For each of the calculated time differences being an integer multiple of a first predetermined time length, and having an overall

time that does not exceed a second predetermined time length, the video processing engine sends the content thereof to a content processing platform, which performs recognition processing thereon to identify the calculated time difference as a potential commercial. *Id.* at 2:16–20.

Claims 1 and 8 are independent. Claim 1, reproduced below with disputed limitations emphasized, is illustrative:

1. An automated method of detecting the presence of potential commercials in a video data stream that contains (i) segments of program type content, and (ii) commercial content, wherein the commercial content appears in a commercial break between segments of program type content, each commercial break including one or more commercials, wherein each of the commercials has an expected time length that is an integer multiple of a first predetermined time length, and has an overall time length that is equal to or less than a second predetermined time length, the method comprising:
 - (a) receiving, by a video processing engine, a video data stream;
 - (b) detecting, by the video processing engine, transitions in the audio or video of the video data stream and recording the time of the transitions;
 - (c) calculating for each transition, by the video processing engine using the time of the transitions, time differences between one or more successive transitions;
 - (d) *identifying, by the video processing engine, any time differences between the one or more successive transitions that are an integer multiple of the first predetermined time length, and that have an overall time length that is equal to or less than the second predetermined time length, wherein the contents of the video data stream associated with the identified time differences are potential commercials;* and
 - (e) *electronically sending the contents of the video data stream associated with the identified time differences to a content processing platform that performs recognition processing of the contents to identify any potential commercials.*

III. REFERENCES

The Examiner relies upon the following references.³

Name	Reference	Date
Zigmond	US 2006/0041902 A1	Feb. 23, 2006
Chen	US 7,400,364 B2	July 15, 2008
Muller	US 2017/0155973 A1	June 1, 2017

IV. REJECTION

The Examiner rejects claims 1, 6–8, 13, and 14 under 35 U.S.C. § 103 as being unpatentable over the combined teachings of Chen and Muller. Final Act. 2–5.

The Examiner rejects claims 2–5, 9, and 11–12 under 35 U.S.C. § 103 as being unpatentable over the combined teachings of Chen, Muller, and Zigmond. Final Act. 5–6.

V. ANALYSIS

We consider Appellant’s arguments in the order they are presented in the Appeal Brief, pages 5–20 and the Reply Brief, pages 2–7.⁴

Appellant argues that the Examiner erred in finding that the combination of Chen and Muller teaches or suggests sending to a content processing platform time differences between successive transitions in a video data stream wherein the time differences are identified as potential commercials, as recited in independent claims 1, and 8. Appeal Br. 10. In

³ All reference citations are to the first named inventor only.

⁴ We have considered in this Decision only those arguments Appellant actually raised in the Briefs. Arguments not made are waived. *See* 37 C.F.R. § 41.37(c)(1)(iv) (2014).

particular, Appellant argues that Chen’s disclosure of calculating an integer-multiple of a predetermined time length of a commercial, after a user activates a surfing process, to allow the user to automatically surf back to an original program upon the multiple time length has elapsed does not teach the disputed claim limitations. *Id.* at 7 (citing Chen 6:49–7:3). Further, Appellant argues that although Chen discloses a timer-driven embodiment that could be modified to perform automatic detection of a transition identifying the potential start point of a commercial, Chen would still lack the disputed limitations. *Id.* at 10–11. According to Appellant, Chen’s integer multiple is used to extend the surf-away time by a multiple of a standard length commercial whereas the claimed integer multiple is used to test whether a time difference meets the criteria for the first and second predetermined lengths of time. *Id.* at 11. Furthermore, Appellant argues that the Examiner’s reliance upon Muller to teach a “content processing platform” would not only fail to remedy the noted deficiencies in Chen, but the proposed combination of Muller with Chen would also amount to impermissible hindsight. *Id.* at 11–12. Therefore, Appellant submits that Chen’s disclosed processes for allowing a user to skip commercials based on the determined length thereof do not teach or suggest that the contents of the commercials should be captured for recognition processing. *Id.* at 12.

Appellant’s arguments are persuasive of reversible Examiner error. Chen discloses a method and system for allowing a user to automatically surf back to a primary program after the user surfed therefrom to a secondary program to avoid commercials embedded within the primary program. Chen, Abstr., 3:16–20. In particular, after the user activates a surfing process to avoid a detected commercial embedded within the

primary broadcast program being watched by the user, the system calculates an integer-multiple of a predetermined time length of the commercial. *Id.* at 5:55–64, 6:1–5, 6:59–7:3. Upon detecting that the calculated time length for the commercial has elapsed, a transition detector allows the user to automatically surf back to the original program. *Id.* Likewise, Chen’s system is capable of being used to avoid more successive commercials embedded within the primary broadcast program. *Id.*

The disputed claim limitations require identifying in a video data stream time differences between successive transitions that (i) are an integer-multiple of a first predetermined time length and (ii) have an overall time length that does not exceed a second predetermined time length. We agree with the Examiner that Figure 5 of Chen depicts a video stream (50) including main program (51) and commercials (52) separated by transitions (53), each successive pair of transitions being separated by time differences (54, T), which are an integer multiple (N) of a first pre-determined time length (e.g., T=30 seconds), and have an overall time length (NT, e.g., N=4) that does not exceed a second predetermined time length (120 sec.). Ans. 7–8 (citing Chen Fig. 5, 5:55–62, 6:4–62).

The disputed claim limitations further require sending the identified time differences to perform recognition processing as a potential commercial. We agree with Appellant that because Chen already determines the identified time difference as a commercial, which the user viewing the main broadcast program seeks to avoid, Chen therefore does not perform the requisite recognition processing. Appeal Br. 12. Instead, Chen’s further processing of the identified time difference pertains to a total amount of time allotted to the user to surf away from the main broadcast program before

being automatically surfed back thereto. We consequently find error in Examiner's dismissal of the recognition processing limitation as a mere statement of intended use. Ans. 9. Because Appellant has shown at least one reversible error in the Examiner's obviousness rejection of independent claim 1, we do not reach Appellant's remaining arguments. Accordingly, we do not sustain the Examiner's obviousness rejection of independent claims 1 and 8, each of which includes the argued disputed limitations. Likewise, we do not sustain the rejections of dependent claims 2-7, and 9-14, which also recite the disputed limitation.

VI. CONCLUSION

We affirm the Examiner's rejections of claims 1-14.

VII. DECISION SUMMARY

In summary:

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1, 6-8, 13, 14	103	Chen, Muller		1, 6-8, 13, 14
2-5, 9, 11	103	Chen, Muller, Zigmond		2-5, 9, 11
Overall Outcome				1-14

REVERSED