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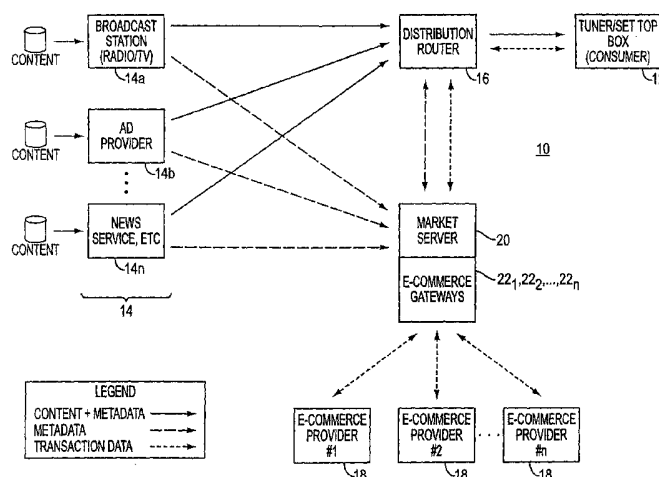
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- (75) Inventor/Applicant (for US only): **SLIK, David** [CA/CA]; 41575 Rod Road, Brackendale City, British Columbia V0N 1H0 (CA).
- (54) Title: **CONTENT DISTRIBUTION SYSTEM TO GENERATE CONTENT STREAMS AND FACILITATE E-COMMERCE TRANSACTIONS USING BROADCAST CONTENT METADATA**
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- Published:**
- with international search report
  - before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

[Continued on next page]



(57) **Abstract:** A content distribution system is provided to facilitate e-commerce transactions for products and services associated with distributed content. A content stream comprising content blocks, reference content blocks and floating reference content blocks uses metadata to identify products and services associated with content blocks. The metadata and floating reference content blocks are used to substitute dynamically selected content for content blocks based on profiles of user(s), the broadcast station, the advertisement spot defined in the stream and content available for substitution. A market server determines optimal matches to support content substitution, and performs brokerage and bidding functions among suppliers of products or services associated with content selected by users.

WO 01/055881 A3



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*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/CA 01/00065

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 G06F17/60 H04N5/445 H04N7/16

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 G06F H04N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EP0-Internal

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 929 849 A (KIKINIS DAN) 27 July 1999 (1999-07-27) abstract; figures 2A-3B column 2, line 60 -column 4, line 61 column 6, line 64 -column 11, line 19 ---	1-8
X	US 5 880 769 A (MORRIS JOHN C ET AL) 9 March 1999 (1999-03-09) abstract; figures claims 20-22 column 1, line 54 -column 2, line 9 column 4, paragraph 1 column 5, line 19 - line 53 column 6, line 19 - line 46 --- -/--	1-8

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

## \* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&amp;" document member of the same patent family

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19 August 2002

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# INTERNATIONAL SEARCH REPORT

Inte I Application No  
PCT/CA 01/00065

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 583 560 A (COREY GLENN ET AL) 10 December 1996 (1996-12-10) abstract; figures 1-3B, 37-50 column 10, line 33 -column 11, line 25 column 2, line 19 -column 3, line 60 column 22, line 50 -column 24, line 44 ---	1-8
A	WITTIG H ET AL: "INTELLIGENT MEDIA AGENTS IN INTERACTIVE TELEVISION SYSTEMS" PROCEEDINGS OF THE INTERNATIONAL CONFERENCE ON MULTIMEDIA COMPUTING AND SYSTEMS, LOS ALAMITOS, CA, US, 15 May 1995 (1995-05-15), pages 182-189, XP000603484 the whole document -----	1-8

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/CA 01/00065

## Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
  
2. ☐ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
  
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
  
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
  
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
  
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-8

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claims: 1-8

Content distribution system where Metadata, with information about products/services related to the content currently being received, is attached to said content. Users receive content blocks and metadata by means of a user's device, and can use this device to interact with the content (allow the selection and purchase of a product/service associated with the content from one of a number of e-commerce providers).

The problem to be solved is therefore to allow e-commerce transactions of products/services related to the transmitted content by attaching Metadata to the content blocks, said metadata containing information that facilitates the e-commerce transactions.

2. Claims: 9-19,23

Method to selectively substitute content into content streams for transmission to one or more users, wherein the substitute content is dynamically selected with the objective of producing an optimal match between a plurality of criteria, such as user's profile, ad spot's profile, etc. Said substitute content is fitted into empty space-holders which are referred to as "floating reference content blocks".

The problem to be solved is therefore the transmission of personalized content streams.

3. Claims: 20-22

As far as it can be understood, the invention relates to a communication network allowing users to receive a stream of content and to purchase products or services related to said content, where said stream of content comprises reference content blocks comprising metadata that can override metadata in a content block that has been pointed to. A distribution router determines which of said metadata is to be used (either the metadata in the reference content block or in the content block).

The problem to be solved is therefore to associate content with metadata (with information that allows users to purchase products/services related to said content) by means of a flexible mechanism, so that the metadata is not fixedly linked to a content block.

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/CA 01/00065

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