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(54) Title: INTERACTIVE, RICH-MEDIA DELIVERY OVER AN IP NETWORK USING SYNCHRONIZED UNICAST AND MULTICAST

(57) Abstract: An apparatus, system, and method are disclosed for delivering rich media over digital networks. The invention includes processing rich media in two or more sub-streams. The sub-streams include digital packets for transport over IP networks. The invention includes adding synchronizing information to the sub-streams by adding sequencing information to the digital packets of each sub-stream, where digital packets of the sub-streams that correspond to a point in play each include a sequence identifier indicating the point in play. The synchronizing information is sufficient for a client (104) to combine the sub-streams to form the rich media. The invention includes transmitting the sub-streams concurrently over one or more digital networks (106) to the client (104) for combining the sub-streams to form the rich media. Each of the sub-streams is transmitted over a different route. Each route corresponds to a unique sub-stream address.

INTERNATIONAL SEARCH REPORT

International application No.

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A. CLASSIFICATION OF SUBJECT MATTER
 IPC: **G06F 15/18(2006.01)**

USPC: 709/205
 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)
 U.S. : 709/205

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 practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	Armstrong et al. Pub. No (US 2005/0256941 A1) ([0024-0043] FIG.1)	1-42

Further documents are listed in the continuation of Box C. See patent family annex.

* Special categories of cited documents:	
"A" document defining the general state of the art which is not considered to be of particular relevance	"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
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"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
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