

United States Patent [19]

Sonnenreich et al.

- [54] INTERNET BASED DISTANCE LEARNING SYSTEM FOR COMMUNICATING BETWEEN SERVER AND CLIENTS WHEREIN CLIENTS COMMUNICATE WITH EACH OTHER OR WITH TEACHER USING DIFFERENT COMMUNICATION TECHNIQUES VIA COMMON USER INTERFACE
- [75] Inventors: Wes Sonnenreich; Tim Macinta; Jason Albanesc; Robert H. Rines, all of Boston, Mass.
- [73] Assignee: Academy of Applied Science
- [21] Appl. No.: 08/735,903
- [22] Filed: Oct. 24, 1996
- [52] U.S. Cl. 709/204; 709/205; 709/203

[56] References Cited

U.S. PATENT DOCUMENTS

| 5,347,632 | 9/1994 | Filepp et al 395/200 |
|-----------|---------|-------------------------|
| 5,442,771 | 8/1995 | Filepp et al 395/650 |
| 5,740,549 | 4/1998 | Reilly et al 705/14 |
| 5,841,976 | 11/1998 | Tai et al 395/200.34 |
| 5,862,330 | 1/1999 | Anupam et al 395/200.34 |

OTHER PUBLICATIONS

Paul England et al, "Rave: Real Time Servios for the Web," Fifth International WWW Conference, May 6–10, 1996, Paris, France http://www5conf.inria.fr/fich_html/papers/ p57/overview.html.

Thane J. Frivold, "Extending WWW for Synchronous Communication", http://www.ncsa.uiuc.edu/SDG/IT94/Proceedings/CSCW/Frivold/Frivold.html, 1994. US005974446A

[11] **Patent Number:** 5,974,446

[45] Date of Patent: Oct. 26, 1999

Tak K. Woo et al, "A Synchronous Collaboration Tool for WWW," http://www.ncsa.uiuc.edu/SDG/IT94/Proceedings/CSCW/rees/SynColTol.html, 1994.

Elizabeth Thach et al, "Training via distance Learning," Training & Development, vol. 49 p. 44 (3p), Dec. 1, 1995.

Karen L. Murphy et al, Development of Communication Conventions in Instructional Electronic Chats http://star.ucc.nau.edu/mauri/papers/aera97a.html, 1997.

Katie Wulf, "Training via the Internet; Where are we?" Training & Development, vol. 50 p. 50 (6p), May 1, 1996.

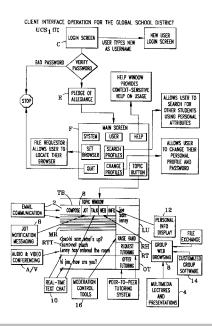
Gene Steinberg, Special Edition Using America Online, pp. 1 through 851, Aug. 18, 1995.

Primary Examiner—Mehmet B. Geckil Attorney, Agent, or Firm—Rines and Rines

[57] ABSTRACT

A novel user-friendly method of and system for integrating the use of a plurality of different communication techniques for over-the-Internet interfacing between a central server storing a plurality of different information topics and user identification information and a plurality of independent user computer stations which have selected common information topics and are widely geographically separated, for such purposes as information and dialog networking of schools and other groups with common topic interests, and enabling real-time intercommunication amongst such users and with the server, and including growing the information on the selected topics through Internet feedback to the server of user dialog and supplemental information relating thereto; the method creating a virtual common room atmosphere for all the users (such as the same virtual classroom) wherein, irrespective of the diverse geographical locations and actual distances of the varied user stations from one another and from the central server, real-time interactions are enabled amongst all simulating as if the users were all actually in the same room at the same time and participating together.

29 Claims, 5 Drawing Sheets



DOCKET A L A R M Find authenticated court documents without watermarks at <u>docketalarm.com</u>.

Δ

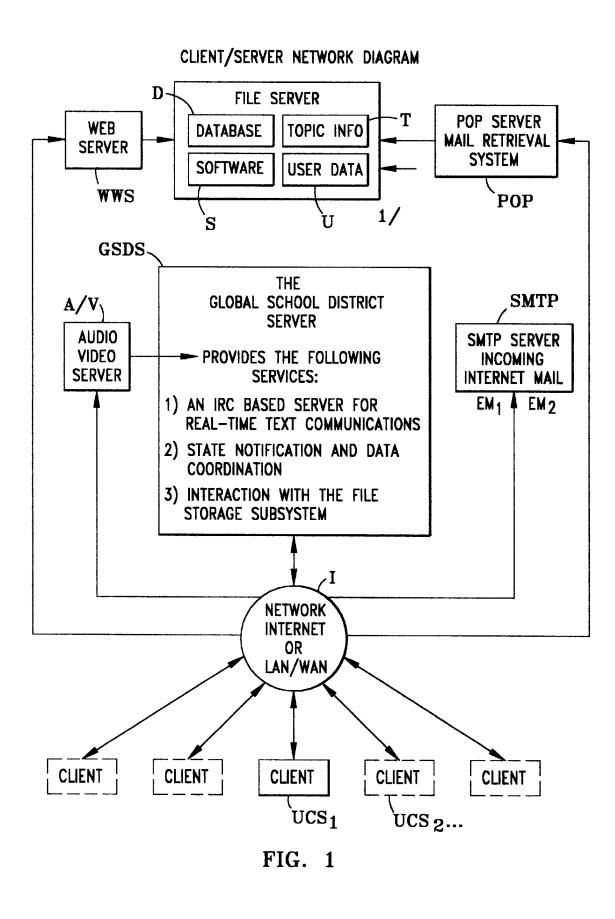
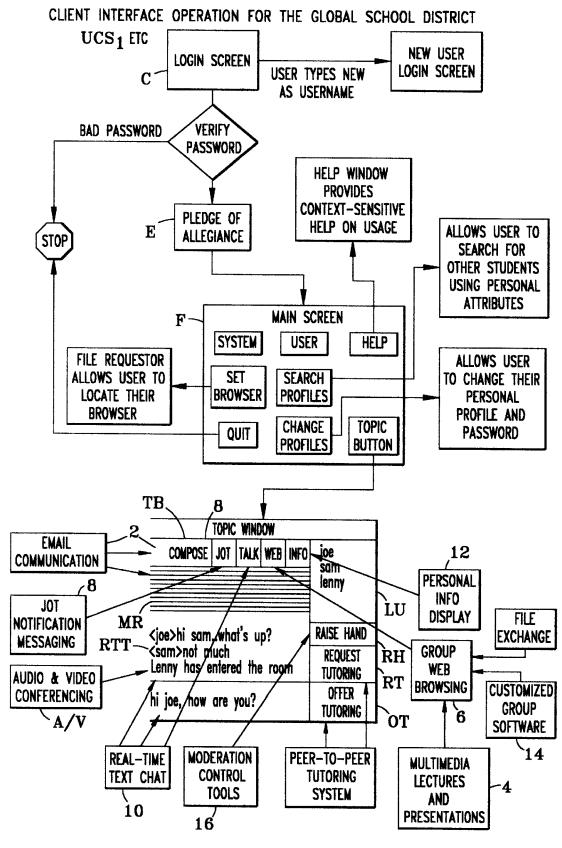


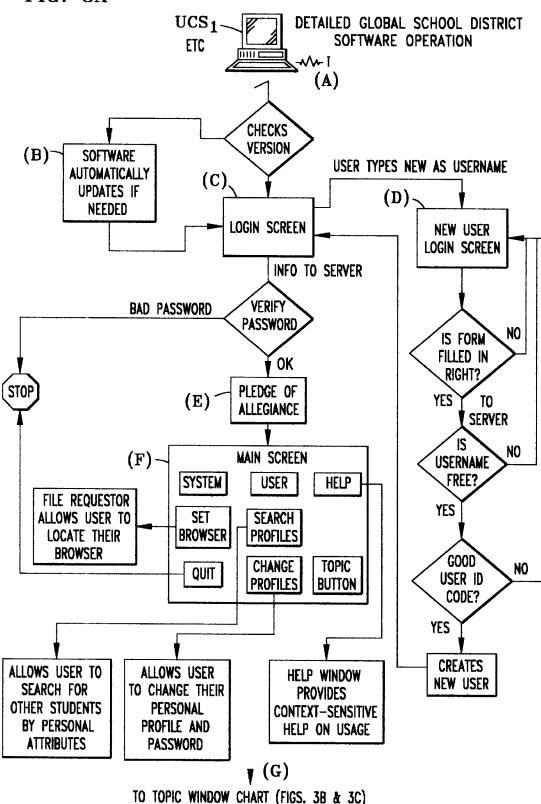
FIG. 2



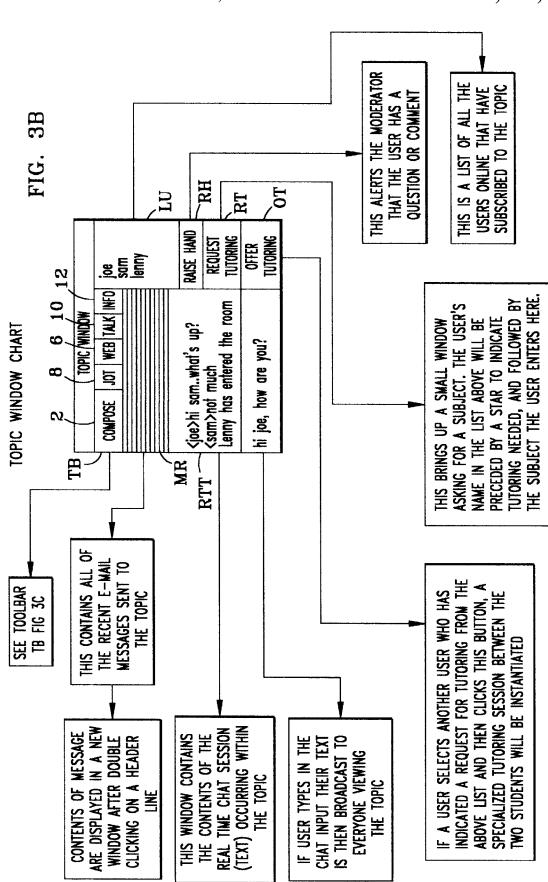
O)

Δ

FIG. 3A



CKET A R M Find authenticated court documents without watermarks at <u>docketalarm.com</u>.



Δ

DOCKET A L A R M



Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.