

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

IBG LLC,
INTERACTIVE BROKERS LLC, TRADESTATION GROUP, INC., and
TRADESTATION SECURITIES, INC.,
Petitioner,

v.

TRADING TECHNOLOGIES INTERNATIONAL, INC.
Patent Owner

CBM2016-00054
Patent No. 7,693,768 B2

**DECLARATION OF ERIC J. GOULD BEAR
IN SUPPORT OF PATENT OWNER'S RESPONSE**

TABLE OF CONTENTS

I. INTRODUCTION 3

II. SUMMARY OF CONCLUSIONS 3

III. BACKGROUND AND QUALIFICATIONS 4

IV. MATERIALS REVIEWED 10

V. FIELD OF THE INVENTION 11

A. Inventions Necessarily Rely on Existing Technologies 11

B. The Science of Human-Computer Interaction 12

C. The TT Patent is Concerned with Solving a Technical GUI Problem 16

D. Computer-Readable Medium Claims are Not Directed at Propagated Signals...27

VI. CONCLUSION..... 28

EXHIBIT 1: BEAR CV

EXHIBIT 2: TUFTE VISUAL AND STATISTICAL THINKING

EXHIBIT 3: MACKENZIE AND BUXTON ON FITTS' LAW

I. INTRODUCTION

1. I have been retained by Trading Technologies International, Inc. (“**TT**” or “**Patent Owner**”), in this action. My credentials are described in my CV, which is attached hereto as **Exhibit 1**. I offer this report on the technology at issue in U.S. Patent No. 7,693,768 B2 (the “**’768 Patent**”) in response to the Covered Business Patent Review matter CBM2016-00054 instituted and filed by IBG LLC, Interactive Brokers LLC, (“**IB**”) TradeStation Group, Inc. and TradeStation Securities, Inc. (“**TS**”, “**TradeStation**”) (collectively “**Petitioner**”).

2. I have been asked by TT’s counsel to explain whether and how graphical user interface design and development is technology and whether the inventions claimed in the ’768 Patent are technical solutions to technical problems. Further, I have been asked to assess whether the claims read on all ways of displaying and updating market information and placing a trade order. I am being compensated at the rate of \$480 per hour. My compensation is not related to the outcome of this case.

II. SUMMARY OF CONCLUSIONS

3. As a result of performing the analysis described herein and measured against the standards outlined below in Section IV, I have determined that, in my opinion, the ’768 Patent claims a new and improved graphical user interface. Herein, I explain how graphical user interfaces are technologies for human

interaction designed and purpose-built to address problems of speed, accuracy, efficiency and usability – all technical problems. Since graphical user interfaces are inherently technology, the '768 Patent claims are necessarily directed to technology; solving technical problems with technical solutions. The claims are not directed to a business method or practice. And since they explicitly improve upon known computer technologies, they are neither merely implemented using known computer technology nor directed to routine and conventional computing components or steps. My opinion is supported by the evidence in the patent specification, figures and claims.

III. BACKGROUND AND QUALIFICATIONS

4. I am the first named inventor on at least 80 United States patent applications that list me as an inventor. These are cataloged in my CV. To date, at least 70 of those applications have issued as U.S. patents. I am also the first named inventor on a number of international patents and patent applications.¹

5. Inventions of mine for which patents have been issued include virtual force-feedback user interfaces, methods of navigating poly-hierarchical information, management of playlists that include both owned and un-owned

¹ Some of my patents and applications identify me as “Gould” while others identify me as “Bear” because I legally changed my name from Eric Justin Gould to Eric Justin Gould Bear after adopting my first child from China in 1999.

songs, real-time communications architectures, auxiliary visual displays for personal computers, auxiliary processing by sleeping computing devices, methods for reducing parallax in computer camera systems, methods for using telephony controls on personal computers, methods for navigating content using media transport controls, and methods for unifying audio control on personal computers. More recent applications claim inventions relating to symbolic and schematic displays of protocol-specific information, user interfaces for visualizing data backup and recovery, and handheld multi-channel interactive environments.

6. By the time I was 12, I was programming computers in BASIC using Tandy TRS-80 and Apple personal computers. In 1984, I formed Element Systems to provide a consulting framework for my interface design and code production skills. From 1984 to 1993, I designed and engineered software for clients in utilizing a variety of coding languages, including BASIC, Pascal, C, C++, 68000 Assembly Language and HyperCard / SuperCard. Clients included Aetna Life Insurance, Kaleida Labs (an Apple/IBM joint venture) and SoftWriters, for whom I wrote code to perform network administration of remote computer systems in 1991. Other clients are listed in my CV.

7. In 1986, two years after Apple released the Macintosh computer, I became an Apple Certified Developer.

8. In 1988 and 1989, I designed and developed a significant portion of the code for Aetna Life Insurance's first graphical user interface. The

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.