

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

VIZIO, INC.,
Petitioner,

v.

MULTIMEDIA TECHNOLOGIES PTD. LTD.,
Patent Owner.

Case IPR2024-00722
Patent 9,232,168

**DECLARATION OF HENRY HOUH
UNDER 37 C.F.R. § 1.68 IN SUPPORT OF PETITION
FOR INTER PARTES REVIEW**

TABLE OF CONTENTS

I.	INTRODUCTION	1
II.	QUALIFICATIONS AND PROFESSIONAL EXPERIENCE	3
III.	LEVEL OF ORDINARY SKILL IN THE ART	7
IV.	RELEVANT LEGAL STANDARDS	9
V.	BACKGROUND	11
A.	Graphical User Interfaces	12
B.	Smart TVs	15
VI.	THE '168 PATENT	17
A.	Overview	17
B.	Prosecution History	20
VII.	OVERVIEW OF THE PRIOR ART	20
A.	Lider	20
B.	Eibl	23
VIII.	CLAIM CONSTRUCTION	26
IX.	IDENTIFICATION OF HOW THE CLAIMS ARE UNPATENTABLE	26
A.	Ground 1: Claims 1-7 and 10-15 Are Obvious Under 35 U.S.C. § 103 over Lider in view of the Knowledge of a POSITA.	27
i.	Claim 1	27
a.	[1.0] A method for providing a user interface in an intelligent television, the method comprising:	27
b.	[1.1] receiving, by a processor of the intelligent television, a selection associated with a first	

	navigation bar in the user interface of the intelligent television;	29
c.	[1.2] determining if a second user interface, associated with the selection, can contain a second navigation bar;	34
d.	[1.3] if a second user interface, associated with the selection, can contain a second navigation bar, rendering a horizontal navigation bar as the second navigation bar in the second user interface; and	40
e.	[1.4] if a second user interface, associated with the selection, can not contain a second navigation bar, rendering a different user interface device for the second navigation bar in the second user interface.	40
ii.	Claim 2	45
a.	[2.0] The method as defined in claim 1, ...	45
b.	[2.1] further comprises the processor determining one or more of a content and a format of the second navigation bar.	45
iii.	Claim 3	48
a.	[3.0] The method as defined in claim 2, ...	48
b.	[3.1] further comprises the processor determining one or more of a format and a characteristic of the second user interface.	48
iv.	Claim 4	50
a.	[4.0] The method as defined in claim 2, ...	50
b.	[4.1] wherein the determination of if a second user interface, associated with the selection, can contain a second navigation bar comprises the processor comparing one or more of the content and the format of the second navigation bar with one or	

	more of the format and the characteristic of the second user interface.	50
v.	Claim 5	53
	a. [5.0] The method as defined in claim 2,.....	53
	b. [5.1] wherein if the second navigation bar is too large for the second user interface, the processor renders different user interface device.	53
vi.	Claim 6	56
	a. [6.0] The method as defined in claim 2,.....	56
	b. [6.1] further comprises the processor presenting the second user interface with the second navigation bar.	56
vii.	Claim 7	57
	a. [7.0] The method as defined in claim 2, further comprises:	57
	b. [7.1] the processor determining if a drop-down navigation bar is needed;	57
	c. [7.2] if the drop-down navigation bar is needed, the processor rendering the drop-down navigation bar as the second navigation bar; and.....	61
	d. [7.3] if the drop-down navigation bar is not needed, the processor rendering a vertical navigation bar as the second navigation bar.....	61
viii.	Claim 10	65
	a. [10.0] The method as defined in claim 2, further comprises the processor presenting the second user interface with the second navigation bar.	65
ix.	Claim 11	65
	a. [11.0] An intelligent television system comprising:	65

b.	[11.1] a memory operable to store social media data; and.....	65
c.	[11.2] a processor in communication with the memory, the processor programmed to:	66
d.	[11.3] execute a user interface application, the user interface application:	68
e.	[11.4] receiving a selection associated with a first navigation bar in the user interface of the intelligent television;	69
f.	[11.5] determine if a second user interface, associated with the selection, can contain a second navigation bar;	69
g.	[11.6] if a second user interface, associated with the selection, can contain a second navigation bar, rendering a horizontal navigation bar as the second navigation bar in the second user interface; and	69
h.	[11.7] if a second user interface, associated with the selection, can not contain a second navigation bar, rendering a different user interface device for the second navigation bar in the second user interface.	70
x.	Claim 12	70
a.	[12.0] The intelligent television system as defined in claim 11, wherein the user interface application:.....	70
b.	[12.1] determines one or more of a content and a format of the second navigation bar;	70
c.	[12.2] determines one or more of a format and a characteristic of the second user interface; and.....	70
d.	[12.3] presents the second user interface with the second navigation bar.	71
xi.	Claim 13	71

a.	[13.0] The intelligent television system as defined in claim 12, ...	71
b.	[13.1] wherein the determination of if a second user interface, associated with the selection, can contain a second navigation bar comprises the processor comparing one or more of the content and the format of the second navigation bar with one or more of the format and the characteristic of the second user interface; and.....	71
c.	[13.2] wherein if the second navigation bar is too large for the second user interface, the processor renders the different user interface device.....	71
xii.	Claim 14	72
a.	[14.0] The intelligent television system as defined in claim 12, wherein the user interface application:.....	72
b.	[14.1] determines if a drop-down navigation bar is needed;	72
c.	[14.2] if the drop-down navigation bar is needed, renders the drop-down navigation bar as the second navigation bar;	72
d.	[14.3] if the drop-down navigation bar is not needed, renders a vertical navigation bar as the second navigation bar; and	72
e.	[14.4] wherein the drop-down navigation bar includes one or more drop down menus associated with top-level categories presented in the drop-down navigation bar, and wherein the vertical navigation bar includes categories presented vertically in the second user interface.	73
xiii.	Claim 15	76
a.	[15.0] The intelligent television system as defined in claim 12, wherein the user interface application	

	presents the second user interface with the second navigation bar.	76
B.	Ground 2: Claims 1-7, and 10-15 are Obvious Under 35 U.S.C. § 103 over Lider in view of Eibl and the Knowledge of a POSITA	76
i.	Reasons to Combine Lider and Eibl	76
ii.	Claim 1	81
iii.	Claim 2	81
iv.	Claim 3	81
v.	Claim 4	81
vi.	Claim 5	81
vii.	Claim 6	81
viii.	Claim 7	81
a.	[7.0] The method as defined in claim 2, further comprises:	81
b.	[7.1] the processor determining if a drop-down navigation bar is needed;	81
c.	[7.2] if the drop-down navigation bar is needed, the processor rendering the drop-down navigation bar as the second navigation bar; and.....	85
d.	[7.3] if the drop-down navigation bar is not needed, the processor rendering a vertical navigation bar as the second navigation bar.....	87
ix.	Claim 10	88
x.	Claim 11	88
xi.	Claim 12	88
xii.	Claim 13	88

xiii.	Claim 14.....	88
a.	[14.0] The intelligent television system as defined in claim 12, wherein the user interface application:.....	88
b.	[14.1] determines if a drop-down navigation bar is needed;	88
c.	[14.2] if the drop-down navigation bar is needed, renders the drop-down navigation bar as the second navigation bar;	88
d.	[14.3] if the drop-down navigation bar is not needed, renders a vertical navigation bar as the second navigation bar; and	89
e.	[14.4] wherein the drop-down navigation bar includes one or more drop down menus associated with top-level categories presented in the drop-down navigation bar, and wherein the vertical navigation bar includes categories presented vertically in the second user interface.	89
xiv.	Claim 15	92
X.	CONCLUSION.....	92

I, HENRY HOUE, DO HEREBY DECLARE AS FOLLOWS:

I. INTRODUCTION

1. I am making this declaration at the request of Vizio, Inc. (“Vizio”) in the matter of the *Inter Partes* Review of U.S. Patent No. 9,232,168 (“the ’168 Patent”) to Sirpal.

2. I have been asked to provide my opinions regarding whether claims 1-7 and 10-15 (“the Challenged Claims”) of the ’168 Patent are unpatentable as obvious to a person having ordinary skill in the art (“POSITA”) at the time of the alleged invention, in light of the prior art. It is my opinion that all of the limitations of the challenged claims would have been obvious to a POSITA.

3. In the preparation of this declaration, I have studied:

- a. the ’168 Patent, EX1001;
- b. the prosecution history of the ’168 Patent (“’168 File History”), EX1002;
- c. U.S. Patent No. 9,158,440 to Lider *et al.*, (“Lider”), EX1005
- d. U.S. Publication No. 2009/0222771 A1 to Eibl, (“Eibl”), EX1006;
- e. “A History of the GUI,” by Jeremy Reimer, dated May 4, 2005, published by Ars Technica, available at <https://arstechnica.com/features/2005/05/gui/>, EX1034;

- f. <http://toastytech.com/guis/win952.html>, EX1035;
- g. “IOS: A Visual History,” by Verge Staff, dated September 16, 2013, available at <https://www.theverge.com/2011/12/13/2612736/ios-history-iphone-ipad>, EX1036;
- h. “Apple TV (1st generation),” published by Apple Wiki, available at [https://apple.fandom.com/wiki/Apple_TV_\(1st_generation\)](https://apple.fandom.com/wiki/Apple_TV_(1st_generation)), EX1037;
- i. U.S. Patent No. 5,905,521 to Gatto, EX1038;
- j. “WebTV May Not Be for Everyone, but It’s a Step in the Right Direction,” by Lawrence J. Magid, dated September 30, 1996, published by the LA Times, available at <https://www.latimes.com/archives/la-xpm-1996-09-30-fi-49004-story.html>, EX1039;
- k. “Holiday Buyer’s Guide 2007, Part 2; HP MediaSmart TV” by Sina Mohammadi, dated November 12, 2007, published by tom’s Hardware, available at <https://www.tomshardware.com/reviews/holiday-buyers-guide-2007,1723-9.html>, EX1040;

1. (“Google TV: Everything You Need To Know,” by Jay Yarow, dated May 21, 2010, published by Business Insider, available at <https://www.businessinsider.com/what-is-google-tv-2010-5>, EX1045;
 - m. “Sony Outs The First HDTV Powered By Google TV,” by Matt Burns, dated October 12, 2010, published by TechCrunch, available at <https://techcrunch.com/2010/10/12/sony-google-tv/>), EX1046.
4. In forming the opinions expressed below, I have considered:
 - a. the documents listed above;
 - b. the relevant legal standards, including the standard for obviousness, and any additional authoritative documents as cited in the body of this declaration; and
 - c. my own knowledge and experience based upon my work in the field of wireless charging as described below.

5. Unless otherwise noted, emphasis in quoted material has been added.

II. QUALIFICATIONS AND PROFESSIONAL EXPERIENCE

6. My complete qualifications and professional experience are described in my *Curriculum Vitae*, a copy of which can be found in EX1004. The following is a brief summary of my relevant qualifications and professional experience.

7. I received a Ph.D. in Electrical Engineering and Computer Science from the Massachusetts Institute of Technology (“MIT”) in 1998. I also received a Master of Science degree in Electrical Engineering and Computer Science in 1991, a Bachelor of Science degree in Electrical Engineering and Computer Science in 1989, and a Bachelor of Science Degree in Physics in 1990, all from MIT.

8. I am currently self-employed as an independent technical consultant. I am also president of a company that provides supplemental science, technology, engineering, and mathematics (“STEM”) education to children of all ages.

9. I worked as a summer intern at AT&T Bell Laboratories as part of a five-year dual degree program at MIT. I continued to work at AT&T Bell Laboratories as part of this MIT program. While I was at MIT, I was a teaching assistant (“TA”) in the Electrical Engineering and Computer Science Department’s core Computer Architectures course. I first was a TA as a senior for a role typically reserved for graduate students. I later became head TA. The course covered various topics in computer architectures, including memory caching, different types of cache, and cache replacement strategies. As a TA, I helped write homework assignments, lab assignments, and exams. I also taught in the recitation sections.

10. Later, as part of my doctoral research at MIT from 1991-1998, I was a research assistant in the Telemedia Network Systems (“TNS”) group at the

Laboratory for Computer Science. The TNS group built a high-speed gigabit network and created applications that ran over the network. Example applications included ones for remote video capture, processing, and display of video on computer terminals. In addition to working on the design of core network components, designing and building the high speed links, and designing and writing the device drivers for the interface cards, I also set up the group's web server.

11. The TNS group I researched and installed web servers and web caches. I also helped to build the web pages that initiated these video sessions via a web interface. Vice-President Al Gore visited our group in 1996 and received a demonstration of – and remotely drove – a radio controlled toy car with a wireless video camera mounted on it; the video was encoded by TNS-designed hardware, streamed over the TNS-designed network and displayed using TNS-designed software.

12. I co-authored and presented a paper with a colleague about our video demonstrations on the web at the first World Wide Web conference held in Geneva, Switzerland at CERN. CERN is the birthplace of the Web, and the conference was hosted by Tim Berners-Lee, the inventor of the Web. In addition, we also presented a paper that provided dynamic web pages based on data extracted from a database, which we called an “Active Page.” We allowed users to

edit and correct data in the database to demonstrate full integration of a web page with a database.

13. Our video system featured a software toolkit that would be used to create custom interfaces for controlling and interacting with video. The toolkit included button components to fast-forward, pause, stop, and other controls such as a speed control and slider components. Our software could also be used to initiate the video playback interface on another computer.

14. From 1997 to 1999, I was a Senior Scientist and Engineer at NBX Corporation, a start-up that made business telephone systems for streaming packetized audio over data networks instead of using traditional telephone lines.

15. From 1999-2004, I was employed by Empirix or its predecessor company, Teradyne. Empirix was a leader in test tools for telecommunications protocols and systems, providing functional testing tools as well as load testing tools. At Empirix I worked with the web test division to re-architect the division's primary product for functional and load testing of web sites. The tool could pull data from a database to provide variation of data submitted to the web applications, and then to extract data from a web page to populate a database with key results computed by the web site after customized data is submitted.

16. I have designed numerous web-based applications that utilized databases, including designing the schemas. I debugged and reconstructed live

databases when data was corrupted, have deployed open source web applications that integrate with databases, and have written custom SQL scripts to extract data from databases.

17. I have been awarded numerous United States patents, and I have several patent applications pending. The patents and patent application are listed in my *Curriculum Vitae*.

18. I am being compensated at a rate of \$720 per hour for my time in this matter plus reimbursement of reasonable expenses. My compensation is not contingent on my opinions or the outcome of the case, and I have no other interest in this case or the parties thereto.

III. LEVEL OF ORDINARY SKILL IN THE ART

19. I understand there are multiple factors relevant to determining the level of ordinary skill in the pertinent art, including (1) the levels of education and experience of persons working in the field at the time of the invention; (2) the sophistication of the technology; (3) the types of problems encountered in the field; and (4) the prior art solutions to those problems.

20. In my opinion, a person of ordinary skill in the art (“POSITA”) in

August of 2013¹ would have been someone knowledgeable of and familiar with graphical user interface displays that are pertinent to the '168 Patent. A POSITA would have had a bachelor's degree in Electrical Engineering, Software Engineering, or Computer Engineering, or equivalent training, and approximately two years of experience working in the field of television and/or digital video systems, human-computer interaction, or related technologies. Lack of professional experience can be remedied by additional education, and vice versa. In arriving at my opinions and conclusions in this report, I have considered and applied the perspective of such a POSITA. However, I do not think that my analysis would materially change if a somewhat higher or lower level of skill were adopted.

21. For purposes of this Declaration, in general, and unless otherwise noted, my statements and opinions, such as those regarding my experience and the understanding of a POSITA generally (and specifically related to the references I consulted herein), reflect the knowledge that existed in the field as of the filing

¹ Even if it is determined that Patent Owner can claim an August, 2012 priority date for the '168 Patent, my definition of a POSITA would be the same. My opinions expressed herein regarding the obviousness of the Challenged Claims in view of the prior art would also be the same regardless of whether the August, 2012 or August, 2013 priority date applies to the '168 Patent.

date of the '168 Patent, August 19, 2013. Unless otherwise stated, when I provide my understanding and analysis below it is consistent with the level of a POSITA as of the filing of the '168 Patent. I am very familiar with the knowledge possessed by people having this level of skill, as discussed in my curriculum vitae and background.

22. In addition, I was a person of more than ordinary skill in the art in the 2013 timeframe. However, I worked with many people who fit the characteristics of a POSITA, and I am familiar with their level of skill. When developing the opinions set forth in this declaration, I assumed the perspective of a person having ordinary skill in the art, as set forth above.

IV. RELEVANT LEGAL STANDARDS

23. I am not an attorney. In preparing and expressing my opinions and considering the subject matter of the '168 Patent, I am relying on certain basic legal principles that counsel have explained to me. These principles are discussed below.

24. I understand that prior art to the '168 Patent includes patents and printed publications in the relevant art that predate the priority date of the alleged invention recited in the '168 Patent. I have been informed that Petitioner does not concede or agree that the '168 Patent is actually entitled to the August 17, 2012 priority date asserted by Patent Owner but, for purposes of this Declaration, I have

been asked to apply August 17, 2012 as the earliest possible priority date of the '168 Patent.

25. I have been informed that a claimed invention is unpatentable under 35 U.S.C. § 103 if the differences between the invention and the prior art are such that the subject matter as a whole would have been obvious to a person having ordinary skill in the art to which the subject matter pertains at the time the invention was made. I have also been informed by counsel that the obviousness analysis takes into account factual inquiries including the level of ordinary skill in the art, the scope and content of the prior art, and the differences between the prior art and the claimed subject matter.

26. I have been informed by counsel that the Supreme Court has recognized several rationales for combining references or modifying a reference to show obviousness of claimed subject matter. Some of these rationales include the following: (a) combining prior art elements according to known methods to yield predictable results; (b) simple substitution of one known element for another to obtain predictable results; (c) use of a known technique to improve a similar device (method, or product) in the same way; (d) applying a known technique to a known device (method, or product) ready for improvement to yield predictable results; (e) choosing from a finite number of identified, predictable solutions, with a reasonable expectation of success; and (f) some teaching, suggestion, or motivation

in the prior art that would have led one of ordinary skill to modify the prior art reference or to combine prior art reference teachings to arrive at the claimed invention.

27. I further understand that certain factors may support or rebut the obviousness of a claim. I understand that such secondary considerations include, among other things, commercial success of the patented invention, skepticism of those having ordinary skill in the art at the time of invention, unexpected results of the invention, any long-felt but unsolved need in the art that was satisfied by the alleged invention, the failure of others to make the alleged invention, praise of the alleged invention by those having ordinary skill in the art, and copying of the alleged invention by others in the field. I understand that there must be a nexus—a connection—between any such secondary considerations and the alleged invention. I also understand that contemporaneous and independent invention by others is a secondary consideration tending to show obviousness.

28. I am not aware of any allegations by the named inventor of the '168 Patent or any assignee of the '168 Patent that any secondary considerations are relevant to the obviousness analysis of any Challenged Claim of the '168 Patent.

V. BACKGROUND

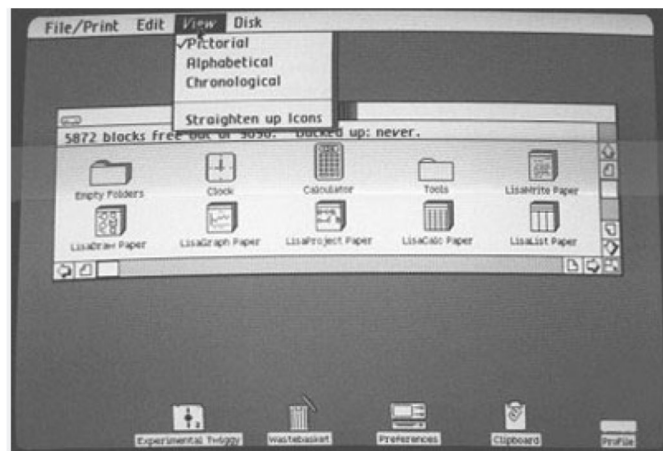
29. The foundation for “intelligent TVs” using user interfaces (UIs) was laid in the decades prior to the filing of the '168 Patent.

A. Graphical User Interfaces

30. A graphical user interface (“GUI”) is generally an interface that enables a user to interact with a computing device through the use of symbols, visual metaphors, pointing devices, etc.

31. GUIs have evolved over decades and were conventional long before 2012.

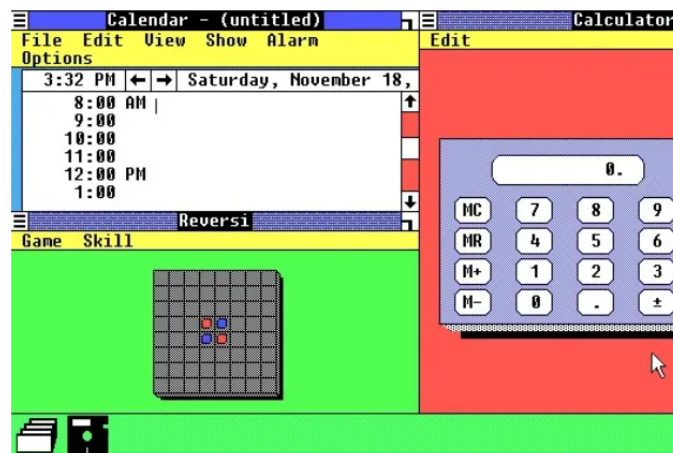
32. For example, an early, well-known example of a GUI on a computing device was found on Apple’s Lisa computer (shown below), which was released in the early 1980s.



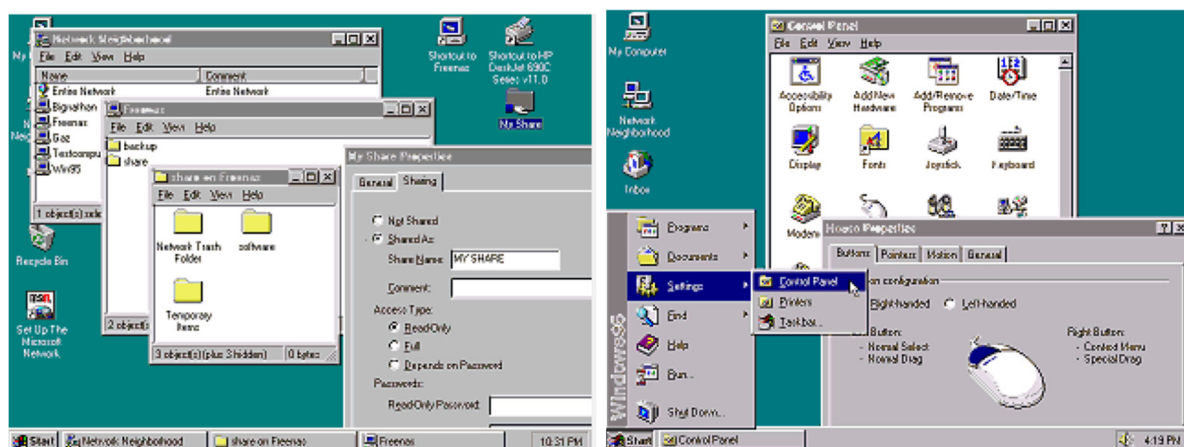
See EX1034 (“A History of the GUI,” by Jeremy Reimer, dated May 4, 2005, published by Ars Technica, available at <https://arstechnica.com/features/2005/05/gui/>).

33. Another early example of a computer GUI, Microsoft Windows 1.0, was publicly released in 1985 and “[a]t the time of its release, Windows 1.0... introduced many computer users to drop-down menus, icons, and dialogue boxes.”

EX1009 (“The history of Windows: How the OS has changed over time”, by Anita George, dated April 6, 2020, published by Digital Trends Media Group, available at <https://www.digitaltrends.com/computing/the-history-of-windows>).



34. By the 1990s, the use of GUIs in computing devices was mainstream and widespread. For example, the Windows 95 operating system included a GUI as shown below.



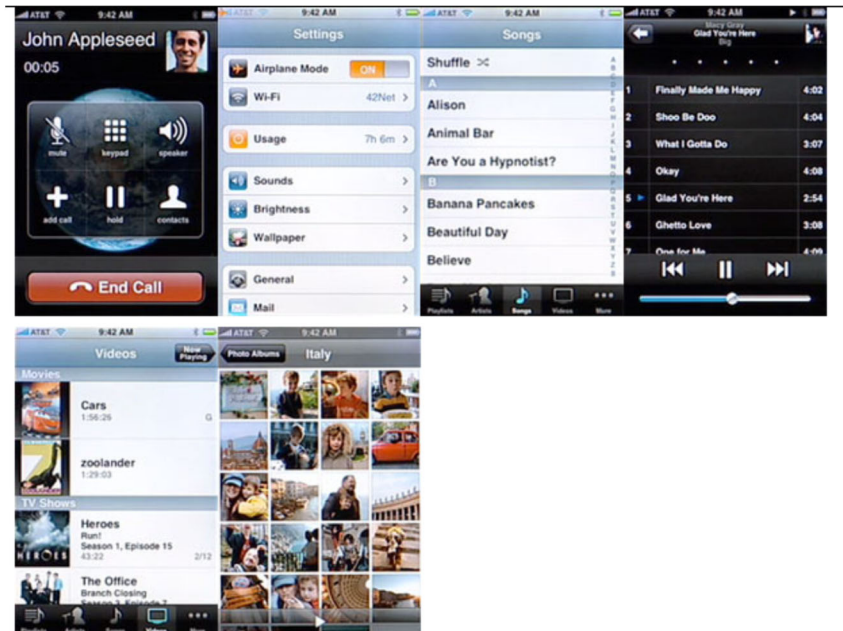
See EX1035 (images from <http://toastytech.com/guis/win952.html>).

35. By at least 2007, the use of GUIs in small computing devices (e.g., iPhone) was mainstream and widespread. For example, the iPhone using IOS 1

included a GUI as shown below.



See EX1036 (“IOS: A Visual History,” by Verge Staff, dated September 16, 2013, available at <https://www.theverge.com/2011/12/13/2612736/ios-history-iphone-ipad>).



See id.

36. By 2007, the use of GUIs on televisions was mainstream and widespread. For example, the Apple TV 1st Generation device included a GUI as shown below.



See EX1037 (“Apple TV (1st generation),” published by Apple Wiki, available at [https://apple.fandom.com/wiki/Apple_TV_\(1st_generation\)\)](https://apple.fandom.com/wiki/Apple_TV_(1st_generation)))).

B. Smart TVs

37. Smart TVs (*i.e.*, intelligent televisions) are a type of television that can connect to the internet and offer a variety of online services, including streaming video, music, and social media. Like other computing devices, Smart TVs continued the evolution of GUIs in various computing devices.

38. Smart TVs can be traced back to at least the mid-1990s (if not earlier). For example, U.S. Patent No. 5,905,521 entitled “Television System in a Digital or Analog Network” was filed on November 6, 1995, claiming priority to a French patent application filed on November 9, 1994. EX1038. The Smart TV disclosed in that patent was equipped with processors and character generators to display menus, text, graphics, and images.

39. In 1996, Sony and Philips began selling WebTV set-top boxes, which

allowed users to access the internet and email on their TVs. *See* EX1039 (“WebTV May Not Be for Everyone, but It’s a Step in the Right Direction,” by Lawrence J. Magid, dated September 30, 1996, published by the LA Times, available at <https://www.latimes.com/archives/la-xpm-1996-09-30-fi-49004-story.html>).

40. In 2007, HP started mass-producing Smart TVs, including the MediaSmart SL760. *See* EX1040 (“Holiday Buyer’s Guide 2007, Part 2; HP MediaSmart TV” by Sina Mohammadi, dated November 12, 2007, published by tom’s Hardware, available at <https://www.tomshardware.com/reviews/holiday-buyers-guide-2007,1723-9.html>). The MediaSmart TV included a set of customized media controls to access videos, music, photos, and internet services.

41. Google TV was launched in 2010. *See* EX1045 (“Google TV: Everything You Need To Know,” by Jay Yarow, dated May 21, 2010, published by Business Insider, available at <https://www.businessinsider.com/what-is-google-tv-2010-5>). It was designed to further bring the internet to the TV screen and provided a GUI that allowed user to access online content, apps, and games.

42. Sony started selling Smart TVs, which used Google TV as the operating system, in 2010. *See* EX1046 (“Sony Outs The First HDTV Powered By Google TV,” by Matt Burns, dated October 12, 2010, published by TechCrunch, available at <https://techcrunch.com/2010/10/12/sony-google-tv/>).

43. As reflected above, most major TV manufacturers in the United States

were selling Smart TVs—which included GUIs on the TVs—before 2012. Indeed, even according to the ’168 Patent itself, there was a “trend to consolidate functionality into the television” before the ’168 Patent. EX1001, 1:48-50.

According to the specification, a “Smart TV represents the trend of technologic convergence between computer and television sets.” *Id.*, 1:53-54. Preexisting smart TVs included “online interactive media, Internet TV, and on-demand streaming media.” *Id.*, 1:54-56.

44. Accordingly, as will be described in more detail below, the ’168 Patent describes and claims no more than what was already known in the art with regard to graphical user interfaces.

VI. THE ’168 PATENT

A. Overview

45. The ’168 Patent is entitled “Systems and Methods for Providing User Interfaces in an Intelligent Television” and issued on January 5, 2016. EX1001, Summary. The ’168 Patent is directed to an “intelligent television” that can “provide various interfaces for navigating processes associated with providing content” wherein such interfaces “include unique visual representations and organizations that allow the user to utilize the intelligent television more easily and more effectively.” *Id.*, Abstract.

46. The ’168 Patent describes methods and systems for providing a user

interface in which a processor receives a “*selection associated with a first navigation bar,*” determines if a “*second user interface*” can contain a “*second navigation bar*” and, if so, renders such “*second navigation bar*” as a horizontal navigation bar, as shown in Figure 22A (annotated) below. *See, e.g., id., cl. 1.*

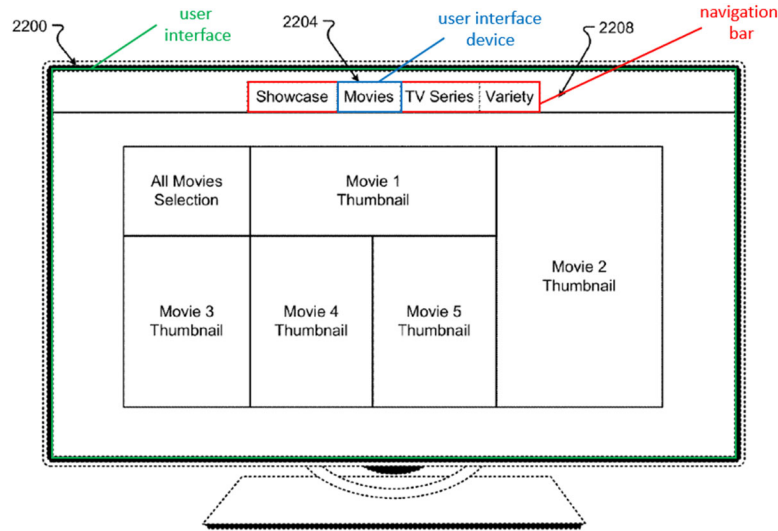


Fig. 22A

47. If the “*second user interface*” cannot contain the “*second navigation bar,*” a different “*user interface device*” is rendered, as shown in Figure 22B (annotated) below. *Id.*

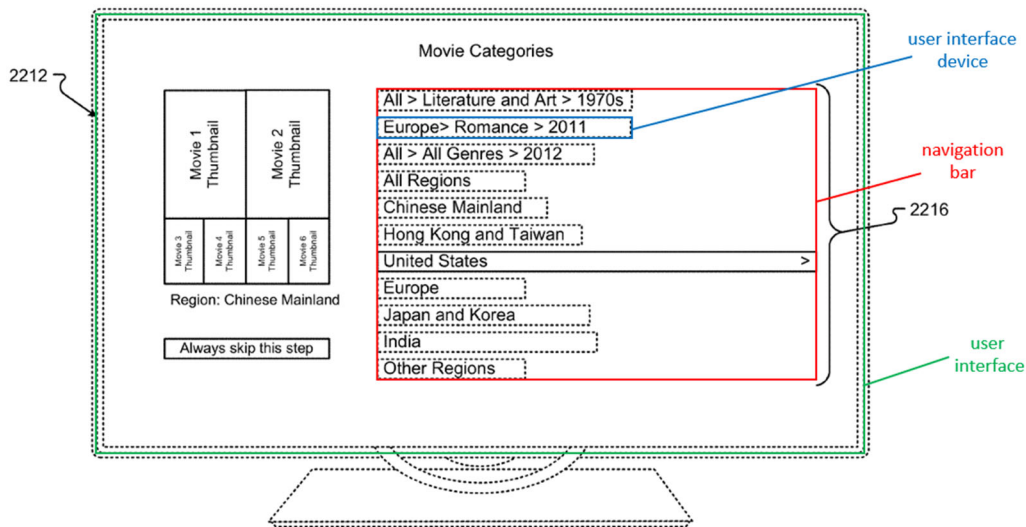


Fig. 22B

48. The '168 Patent's core concept—determining whether a user interface can contain a horizontal navigation bar—is described in the specification as follows:

The content and format of the navigation bar may be set or changed depending on what needs to be viewed within each navigation bar. For example, the navigation bar 2208, in FIG. 22A, is a single banner navigation bar across the top of the screen with only four different user interface devices that may be selected by a user. However, if the content of that navigation bar is too great to be provided over the banner area... the user interface may have to change to another user interface 2212, as shown in FIG. 22B. Here, the navigation bar 2216 is displayed vertically as a series of user selectable devices arranged in rows... because the navigation bar could not [be] displayed across the top of a

banner with the amount of information that needs to be provided in the navigation bar.” EX1001, 45:24-37.

B. Prosecution History

49. The '168 Patent was filed on August 19, 2013. EX1001. It claims priority to a series of provisional applications, the earliest of which, Provisional Application No. 61/684,672, was filed on August 17, 2012. EX1001.

50. On November 6, 2013, the Patentee filed preliminary amendments canceling certain original claims and adding new claims. EX1002, 162. A Notice of Allowance issued without any substantive Office Actions. *Id.*, 3496. After the Examiner issued a Notice of Allowance, the Patentee amended claims 4, 15-20, and 23-28. *Id.*, 3546.

VII. OVERVIEW OF THE PRIOR ART

A. Lider

51. U.S. Patent 9,158,440 to Lider et al. (“Lider”) is entitled “Display of Information Areas in a View of a Graphical Interface” and was filed on August 1, 2012. EX1005.

52. Lider discloses systems and methods for presenting data in one or more information areas within a graphical interface. *Id.*, 1:23-35. Lider teaches that, “[a]n information area can be a toolbar displaying selectable controls or status information,” and that “[d]etermining the current state of the device can include determining a size of the view, where the selected display modes are based on the

determined size of the view, and the display mode can be changed in response to a change in the view size.” *Id.*, 1:55-60.

53. Lider discloses a method that “determines at least one current state of the device including a size of the view, and causes a display of one or more toolbars within the view, each toolbar displaying one or more controls selectable by the user and /or status information.” *Id.*, 2:15-19.

54. Lider specifically discloses that its user interface can be displayed on an intelligent television. Lider’s Figure 10, for example, depicts “a block diagram of an example device which may be used for one or more implementations” of Lider’s claimed systems and methods. *Id.*, 3:50-52.

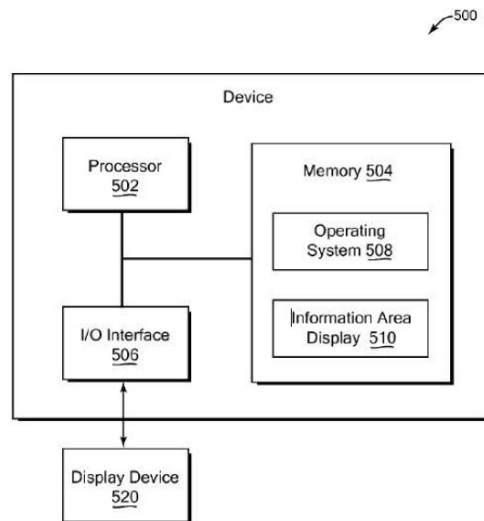


FIG. 10

55. According to Lider, “Device 500” as depicted in Figure 10 “can be any suitable computer system, server, or other electronic or hardware device. For

example, the device 500 can be a . . . television (e.g., television with one or more processors embedded therein and/or coupled thereto).” *Id.*, 19:19-25.

56. Lider teaches the use of view size thresholds to determine the number of horizontal toolbars that the display can contain. For example, Lider teaches that “the device determines the current size of the view and checks whether the view size is less than any one or more predetermined size thresholds intended for display mode selection.” *Id.*, 15:39-41.

57. Lider discloses that “[m]ultiple view size thresholds can be designated, where each size threshold can pertain to a different associated set of information areas.” *Id.*, 15:45-47. “[E]ach size threshold,” Lider teaches, “can be associated with a maximum number of information areas that can be displayed in independent display mode in the view dimension governed by that threshold.” *Id.*, 15:61-64.

58. Lider further teaches, for example, that “if the view size is below the vertical size threshold, then a maximum of two horizontal toolbars can be displayed.” *Id.*, 16:9-11. “A second vertical size threshold,” Lider further discloses, “can allow a maximum of one horizontal toolbar.” *Id.*, 16:15-16.

59. Lider also teaches the display of user interface elements other than horizontal toolbars. For example, Lider teaches the display of “both horizontal and vertical toolbars.” *Id.*, 7:43-48. Lider further teaches that, “[o]ther types of

information areas besides toolbars can be displayed in the view 208. For example, windows or panels displaying controls and/or status information can be displayed, in any desired configuration and/or position within the view 208.” *Id.*, 8:13-17.

B. Eibl

60. U.S. Publication No. 2009/0222771 A1 to Eibl (“Eibl”) is entitled “Adaptable Measuring Device and Method for Adaptation.” Eibl was filed on March 3, 2009, and published on September 3, 2009. EX1006.

61. Eibl discloses a measuring device providing a display device that “can display several dialogs simultaneously.” *Id.*, Abstract. Eibl teaches that “[t]he input of given values in given dialogs effects the opening and/or closing of at least one respectively associated further dialog,” and further teaches that the “content and/or the position and/or the form and/or the linking of the dialogs are adapted.” *Id.*

62. Eibl discloses that the “display device preferably displays text and/or graphics by means of output fields. The user enters numerical values and/or texts and/or selects preferably preset entries preferably by means of input fields. Accordingly a flexible operation and an adaptation of the measuring device and a high information content of the dialogs are provided.” *Id.*, [0010]. Eibl further discloses that “[t]he display device preferably displays several dialogs side-by-side and/or one above the other and/or superimposed. This guarantees a high information content of the display.” *Id.*, [0015].

63. Figure 1 of Eibl, shown below, depicts a “measuring device 100 [that] provides a display device 101, a processing device 102 and a databank 103.” *Id.*, [0027]. “[T]he display device 101 and the processing device 102,” Eibl teaches, “are connected to one another,” and “processing device 102 determines what the display device 101 displays.” *Id.*

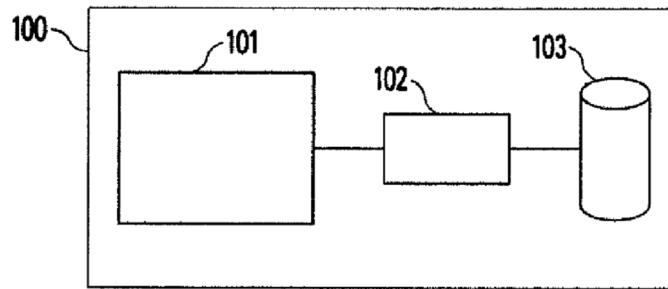


Fig. 1

64. Eibl’s Figure 2, shown annotated below, depicts “display device 101 show[ing] a dialog 1 on an overall surface.” *Id.*, [0028]; FIG. 2.

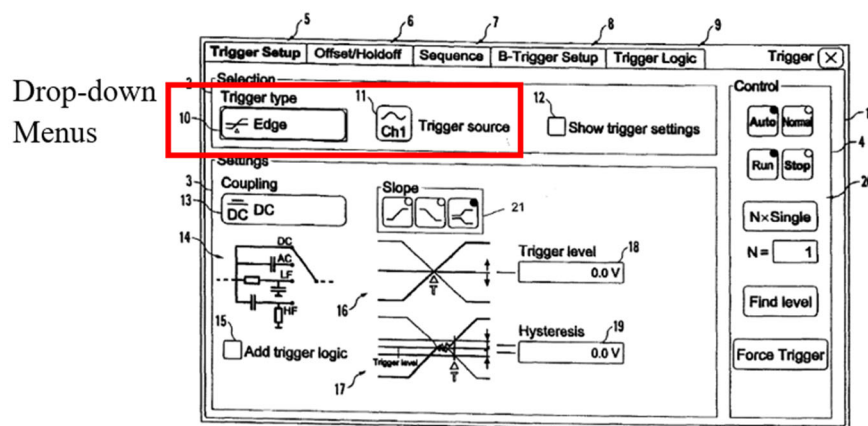


Fig. 2

65. Eibl teaches that “input fields 10, 11 are drop-down menus,” and that “[i]f the input field 10 or 11 is selected, a list of selection options... is rolled down.” *Id.* Eibl’s Figure 3, shown annotated below, “shows a second dialog”

depicting “after the selection of the input field 10,” which, Eibl teaches, “leads to the rolling down of selection list 40 with preset options.” *Id.*, [0033]; FIG. 3.

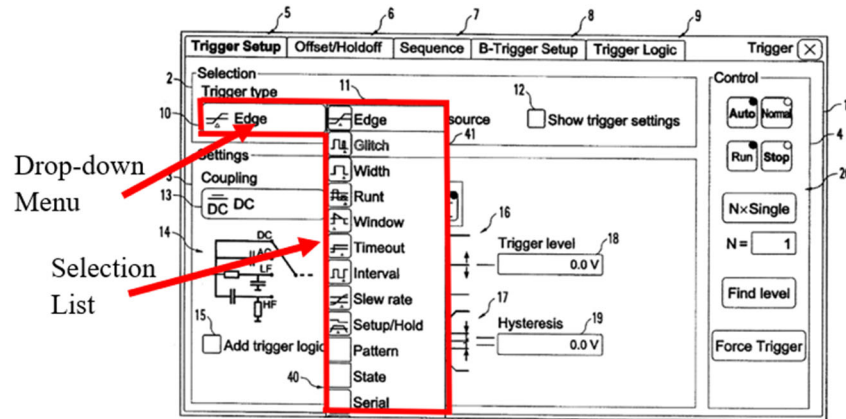


Fig. 3

66. Eibl teaches drop-down menus with different formats than, for example, “input field 10” depicted in Figure 2. For example, Eibl Figure 5, annotated below, depicts “drop-down menu 63.” *Id.*, [0038]; FIG. 5.

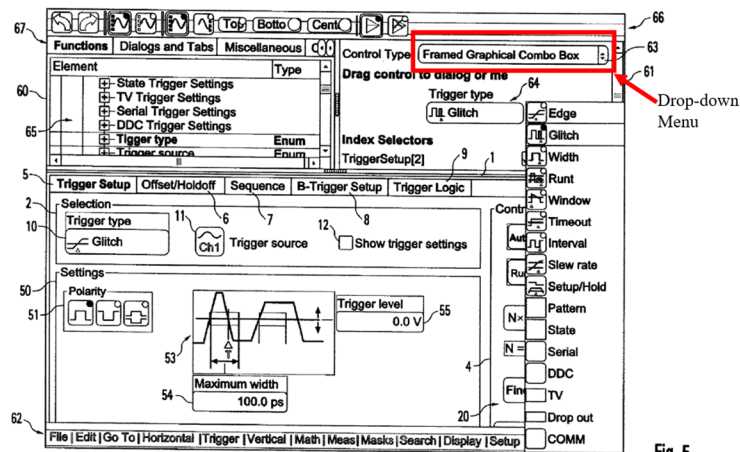


Fig. 5

67. Figure 6 of Eibl, annotated below, depicts “the dialog shown in FIG. 5 after the selection of the drop-down menu 63.” *Id.*, [0040]; FIG. 6. Eibl teaches that “drop-down menu 63 is rolled down here after selection. A list of possible

display types 80... is now displayed.” *Id.*

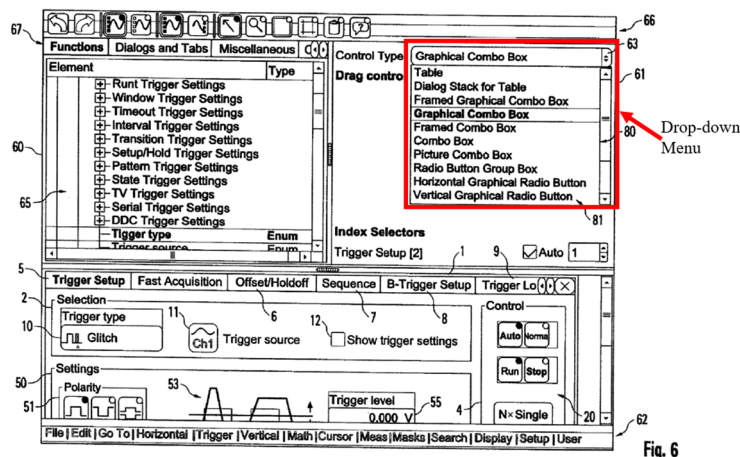


Fig. 6

VIII. CLAIM CONSTRUCTION

68. It is my understanding that in order to properly evaluate the '168 Patent, the terms of the claims must first be interpreted. It is my understanding that for the purposes of this *inter partes* review, the claims are to be construed under the so-called *Phillips* standard, under which claim terms are given their ordinary and customary meaning as would be understood by one of ordinary skill in the art in light of the specification and prosecution history, unless the inventor has set forth a special meaning for a term. For the purposes of this declaration, no terms require specific construction.

IX. IDENTIFICATION OF HOW THE CLAIMS ARE UNPATENTABLE

69. I have been asked to provide my opinion as to whether the Challenged Claims of the '168 Patent would have been obvious in view of the prior art. The discussion below provides a detailed analysis of how the prior art references identified below teach the limitations of the Challenged Claims of the '168 Patent.

70. As part of my analysis, I have considered the scope and content of the prior art and any differences between the alleged invention and the prior art. I describe in detail below the scope and content of the prior art, as well as any differences between the alleged invention and the prior art, on an element-by-element basis for each Challenged Claims of the '168 Patent.

71. As described in detail below, the alleged invention of the Challenged Claims would have been obvious in view of the teachings of the identified prior art references as well as the knowledge of a POSITA.

A. Ground 1: Claims 1-7 and 10-15 Are Obvious Under 35 U.S.C. § 103 over Lider in view of the Knowledge of a POSITA.

i. Claim 1

a. [1.0] A method for providing a user interface in an intelligent television, the method comprising:

72. In my opinion Lider discloses and renders obvious a “*method for providing a user interface on an intelligent television.*” Lider teaches “a method [that] includes causing a display of a portion of a data presentation within a view in a graphical interface, where different portions of the data presentation are displayable.” EX1005, Abstract.² Lider’s GUI may be displayed on an “*intelligent television*” as explained below.

² Citations are to exhibits’ original numbers, and all emphasis in quotes is added unless otherwise indicated.

73. Lider’s Figure 2, shown below, depicts “GUI 200” which Lider describes as “an example graphical user interface (GUI) displaying a data presentation and information areas in the view of the interface.” *Id.*, 3:29-31.

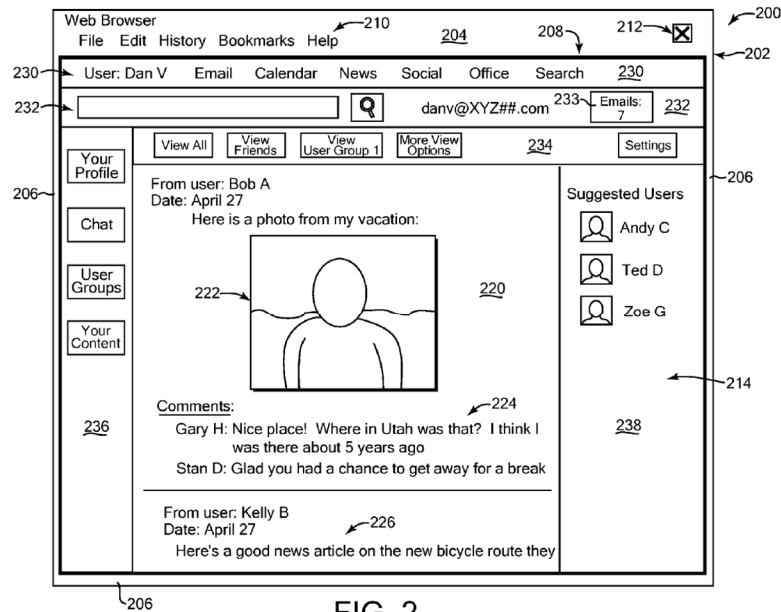


FIG. 2

74. Lider teaches that “GUI 200 can be displayed... on a display of a client device 120, 122, 124, and/or 126, or a server device 104....” *Id.*, 5:64-6:2; FIGS. 1-2.

75. Lider’s Figure 10 depicts “device 500... which may be used to implement any of the client devices 120-126 of Fig. 1, and perform appropriate method implementations described herein or parts thereof.” *Id.*, 19:12-17. Figure 10’s “device 500” includes a “Processor 502” as shown annotated below:

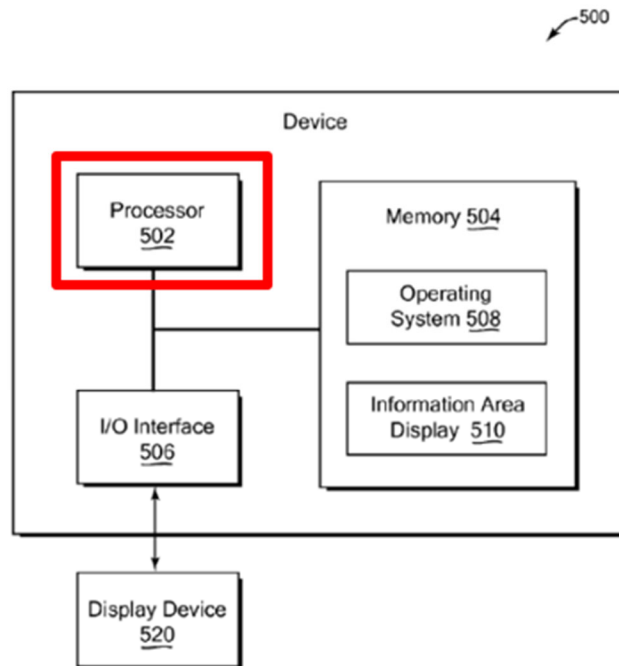


FIG. 10

76. Lider explicitly discloses that “device 500” can be an “*intelligent television*” by teaching that “[d]evice 500 can be any suitable computer system, server, or other electronic or hardware device,” including, for example, a “television (e.g., television with one or more processors embedded therein and/or coupled thereto)...” Id., 19-25.

77. Thus, it is my opinion that Lider discloses and renders obvious “*a method for providing a user interface in an intelligent television.*”

- b. **[1.1] receiving, by a processor of the intelligent television, a selection associated with a first navigation bar in the user interface of the intelligent television;**

78. It is my opinion that Lider discloses and renders obvious “*receiving, by a processor of the intelligent television, a selection associated with a first*

navigation bar in the user interface of the intelligent television.”

79. In my opinion Lider discloses and renders obvious the “*intelligent television*” limitation by disclosing that “device 500” can be a “television with one or more processors embedded therein and/or coupled thereto.” *Id.*, 19-25. Lider also discloses televisions with processors, as required by the claim. *Id.*

80. In my opinion Lider also discloses and renders obvious the “*first navigation bar*” limitation by teaching toolbars (*i.e.* “*navigation bars*”) from which users can make selections. Device 500 can display toolbars from which users can make selections. Specifically, “information areas” are displayed within Lider’s GUI and “can be a toolbar displaying *selectable controls* or status information.” *Id.*, 1:55-56. Lider further teaches that its GUI “provides one or more... toolbars that display controls *selectable by the user to activate or access functions....*” *Id.* 4:18-22.

81. Users make selections associated with functional toolbar 230, for example, as Lider explains below:

[F]unction toolbar 230 displays a number of options which the user may select to navigate to different web page interfaces providing different functions for the user. For example, selecting the “email” option causes an email interface to be loaded and displayed in view 208 instead of the web page, the “calendar option causes a calendar interface to be

displayed, and a ‘social’ option causes a different social network interface to be displayed.

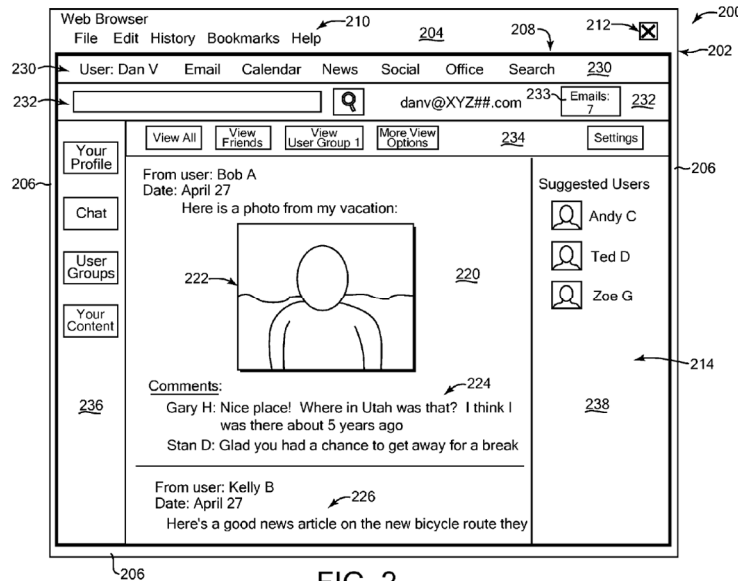


FIG. 2

Id., 7:49-56, FIG. 2.

82. Lider’s Figure 2 teaches the display of a first navigation bar, such as toolbar 230, that presents options users may select, such as Mail, Calendar, News, Social, etc. *Id.*, FIG. 2. A POSITA would understand that for an email interface to be loaded in response to a user selecting the “Email” option within the GUI, the user’s selection would be received by Lider’s processor, which would then execute one or more functions to cause the display of the email interface in response to receiving the selection.

83. Likewise, when the user selects the “Calendar” option, a POSITA would understand that the processor receives the selection and, in response, executes one or more functions to cause the display of the calendar interface. In

other words, Lider's processor receives a user's selection of options provided by navigation bar in a GUI.

84. Other portions of Lider confirm that its processor receives user selections made within a GUI. For example, the specification teaches that “[t]he **processor can determine that a user has accessed a function** presented by the graphical interface, where the display mode is based on the accessed function.” *Id.*, 2:65-67. Additionally, Lider teaches [d]etermining the current state of the device can include **determining that a user has accessed a function** presented by the graphical user interface, such as selecting or deselecting one or more items...” *Id.*, 1:60-65. Hence, when a user selects a navigation bar function in the GUI, the processor receives and acts on the selection accordingly.

85. Additionally, Lider's “*navigation bars*” (*i.e.*, toolbars) are displayed “*in the user interface of the intelligent television.*” For example, “view 208 is provided as a designated viewing area in window 202...” and “the view can be any display area of the display device, in any shape or size.” *Id.*, 6:36-41. Thus, Lider discloses a user interface of an intelligent television, such as “view 208,” in which toolbars (*i.e.*, navigation bars) are displayed.

86. Lider Claim 5 discloses “wherein determining that the user has accessed the function includes **receiving a selection by the user** of one or more items within the data presentation.” *Id.*, 21:63-65.

87. Thus, it is my opinion that Lider discloses and renders obvious “receiving, by a processor of the intelligent television, a selection.”

88. In my opinion Lider further discloses and renders obvious that the selection is “associated with a first navigation bar in the user interface of the intelligent television” by disclosing that “[i]mplementations described herein can enable information areas, such as toolbars, panels, or other displayed areas, to flexibly assume a particular display mode in a view of a graphical user interface.” *Id.*, 3:63-66.

89. Lider Figure 2 discloses a GUI where “both horizontal and vertical toolbars are displayed in the view 208. The **horizontal toolbars include a function toolbar 230**, a search toolbar 232, and a group view toolbar 234. The vertical toolbars include a navigation toolbar 236 and a right side toolbar 238.” *Id.*, 7:43-48. “[F]unction toolbar 230 displays a number of **options which the user may select...**” *Id.*, 7:49-50. Thus, it is my opinion that Lider teaches the display of a first navigation bar, such as a toolbar, that presents options users may select.

90. In my opinion Lider further discloses and renders obvious that navigation bars (*i.e.*, toolbars) are displayed “in the user interface of the intelligent television” by disclosing “view 208” which, Lider teaches, “is provided as a designated viewing area in window 202...” *Id.*, 6:36-37. “[T]he view can be any display area of the display device, in any shape or size.” *Id.*, 6:40-41. Thus, it is my

opinion that Lider discloses a user interface of an intelligent television such as, for example, “view 208” in which navigation bars such as toolbars are displayed.

91. In my opinion Lider further discloses “*receiving... a selection*” by teaching that, “[d]etermining the current state of the device can include determining that a user has accessed a function presented by the graphical user interface, such as selecting or deselecting one or more items...” *Id.*, 1:60-65.

92. Thus, it is my opinion that Lider discloses and renders obvious “*receiving, by a processor of the intelligent television, a selection associated with a first navigation bar in the user interface of the intelligent television*” in view of the knowledge of a POSITA.

c. [1.2] determining if a second user interface, associated with the selection, can contain a second navigation bar;

93. In my opinion Lider discloses and renders obvious “*determining if a second user interface, associated with the selection, can contain a second navigation bar.*”

94. First, Lider discloses a “*second user interface*” by teaching that “view 208 [] can be a sub-portion of the entire display area of the display device” or “a designated viewing area” where one or more toolbars are displayed. EX1005, 6:33-37. Further, “in some implementations, view 208 is provided as a designated viewing area in window 202,” and “the view can be any display area of the display device, in any shape or size.” *Id.*, 6:36-41.

95. In my opinion, a POSITA would understand that because “view 208” is (1) “a designated viewing area in [a] window,” (2) “can be a sub-portion of the entire display area,” and (3) “can be any display area... in any shape or size,” “view 208” can comprise multiple user interfaces, each of which may contain toolbars from which a user may make selections.

96. It is further my opinion that a POSITA would understand from Lider’s teachings that multiple instances of “view 208” could be displayed simultaneously or concurrently, with each instance having its own set of dimensions and/or position on the screen.

97. A POSITA would also understand from Lider’s teachings that multiple instances of “view 208” could be displayed simultaneously, each having its own set of dimensions and/or position on the screen. *Id.*, 6:33-37; 40-41.

98. For example, returning to the example concerning Figure 2 discussed in the prior section, Lider teaches that “selecting the “email” option causes an email interface to be loaded and displayed in view 208 instead of the web page...” *Id.*, 7:49-56, FIG. 2. In other words, the display area defined by “view 208” in Figure 2 can be replaced entirely with an email interface (*i.e., a second user interface*) and any associated toolbars.

99. Alternatively, the email interface might take up a portion of the total area defined by “view 208.” This is further confirmed by Lider’s teaching that one

or more “information areas” may be displayed within a view (for example, view 208) and that “information areas” can be toolbars. *Id.*, 1:30, 55-56, 2:39-40; 4:18-19, 8:13-14 (“Other types of information areas besides toolbars can be displayed in the view 208...”).

100. Lider also teaches that the “display mode of a toolbar can be based on one or more current states of the device,” and “current states” can include “a user action within the view to access a function of the interface or device.” *Id.*, 8:51-56. Thus, the display of a second toolbar (*i.e.*, *second navigation bar*) can result from a user making a selection in another toolbar.

101. Second, Lider discloses a “*second user interface*” that is “*associated with the selection.*” For example, Lider teaches the display of “information areas,” such as toolbars related to user actions or input. Figure 9 depicts “an example of a method 400 of ***displaying information areas*** in a view of a graphical interface ***based on user input*** such as user interaction with the device or graphical interface.” *Id.*, 18:3-6; FIG. 9.

102. With respect to Figure 9, shown below, Lider teaches that “[i]n block 404, the device checks whether the user has performed any action within the graphical user interface to access a function presented by the graphical interface.” *Id.*, 18:14-16; FIG. 9. Further, “in block 406 the device checks whether any information areas for display in the view are related to the user action,” and that “a

related information area is one that presents information or one or more controls related to the function accessed by the user...” *Id.*, 18:23-27; FIG. 9. “If one or more information areas are related, then in block 408 the device sets the display modes of the related information areas based on the user action.” *Id.*, 18:39-42;

FIG 9

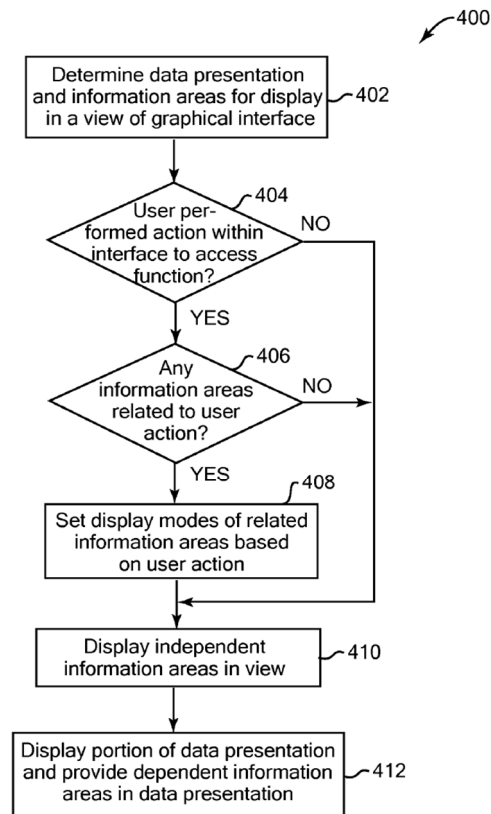


FIG. 9

103. Similarly, referring again to Figure 2, “selecting the ‘email’ option causes an email interface to be loaded and displayed in view 208 instead of the web page...” *Id.*, 7:49-56, FIG. 2. A POSITA would understand that the display of the email interface and any associated toolbars (i.e., *a second user interface*) would

have been a direct response to, and therefore associated with, a user selection.

104. Third, Lider discloses “*determining if a second user interface, associated with the selection, can contain a second navigation bar.*” For example, Lider uses size thresholds to determine whether toolbars can be displayed within a view. Lider teaches that “[t]he processor operations can include *determining a size of the view*, where display modes for *the information areas are based on the determined view size.*” *Id.*, 2:63-65.

105. Lider further teaches that “the device determines the current size of the view and checks whether the view size is less than any one or more predetermined size thresholds intended for display mode selection.” EX1005, 15:39-42. Further, “one view size threshold may be used, which can govern the display mode of one or more associated information areas displayable in the view.”³ *Id.*, 15:42-45. According to Lider, “each size threshold can be associated with a maximum number of information areas that can be displayed in independent display mode in the view dimension governed by that threshold.” *Id.*, 15:61-64.

106. Lider discloses “*determining if a second user interface... can contain a second navigation bar*” by teaching the use of a size threshold to determine the

³ As previously discussed, “information areas” can be toolbars (*i.e.* navigation bars). EX1005, 1:55-56.

maximum number of toolbars that can be displayed. Lider specifically teaches “**determining a size of the view**, where **the selected display modes are based on the determined size of the view**, and the display mode can be changed in response to a change in the view size.” *Id.*, 1:56-60. Moreover, the method taught by Lider “**determines... a size of the view, and causes a display of one or more toolbars within the view**, each toolbar displaying one or more controls selectable by the user....” *Id.*, 2:14-19.

107. Lider provides examples using a first vertical size threshold of 800 pixels and a second vertical size threshold of 528 pixels, noting that “if the current view size is greater than 800 pixels vertically, there can be any number of toolbars displayed...” *Id.*, 16:18-29. “If the view size is less than 800 pixels but greater than 528 pixels,” then Lider teaches that “**there can be a maximum of two horizontal toolbars...**” *Id.*, 16:22-25. “If the view size is less than 528 pixels vertically, then... **there can be a maximum of one horizontal toolbar...**” *Id.*, 16:26-28. According to Lider, “similar determinations can be made for horizontal view thresholds and vertically arranged information areas such as vertical toolbars.” *Id.*, 17:12-19.

108. Because Lider teaches how to determine whether the view can contain a maximum of one toolbar, a maximum of two toolbars, or “any number of toolbars” by using size thresholds, it is my opinion that Lider discloses and renders obvious “**determining whether a second user interface, associated with the**

selection, can contain a second navigation bar.”

- d. **[1.3] if a second user interface, associated with the selection, can contain a second navigation bar, rendering a horizontal navigation bar as the second navigation bar in the second user interface; and**

109. Lider teaches that a second horizontal toolbar is rendered if, using size thresholds as described above, a determination is made that the view can contain a second horizontal toolbar. According to Lider, “[i]f the view size is less than 800 pixels but greater than 528 pixels vertically, then... there can be a maximum of two horizontal toolbars” displayed. EX1005, 16:22-25. Lider further teaches that “[i]f the vertical size is less than the first threshold, as described above, then *a maximum of two horizontal toolbars can be displayed...*” *Id.* 17:3-6.

110. In other words, if two horizontal toolbars—a first toolbar and a second toolbar—can be displayed within the user interface based on the determined view size relative to the applicable size thresholds, then Lider teaches that two horizontal toolbars are displayed in the user interface.

111. Thus, it is my opinion that Lider discloses and renders obvious “*if a second user interface, associated with the selection, can contain a second navigation bar, rendering a horizontal navigation bar as the second navigation bar in the second user interface.*”

- e. **[1.4] if a second user interface, associated with the selection, can not contain a second navigation bar,**

rendering a different user interface device for the second navigation bar in the second user interface.

112. As explained above concerning Claim [1.2], Lider teaches a method for “*determining whether a second user interface, associated with the selection, can contain a second navigation bar*” through the use of size thresholds.

113. In my opinion Lider further discloses, “*if a second user interface, associated with the selection, can not contain a second navigation bar, rendering a different user interface device for the second navigation bar in the second user interface.*”

114. Lider discloses the display of “*a different user interface device*” than a horizontal navigation bar by yessing the display of “both horizontal and vertical toolbars... within the view 208” (EX1005, 7:43-44), and that “[o]ther types of information areas besides toolbars can be displayed in the view 208, such as “windows or panels displaying controls and/or status information... in any desired configuration and/or position within the view 208.” *Id.*, 8:13-17; *see also id.*, 4:22-24 (disclosing “other types of information areas that are graphical elements such as panels or windows.”).

115. Lider further teaches that “[i]f the view size is less than 528 pixels vertically, then... there can be a maximum of one horizontal toolbar...” *Id.*, 16:26-28. In other words, Lider teaches how to determine that the display can contain only a single horizontal toolbar.

116. Lider also teaches how to determine whether the display can contain user interface devices other than horizontal navigation bars—such as vertical toolbars, vertically arranged information areas, windows, and panels—by teaching that “similar determinations can be made for horizontal view size thresholds and vertically arranged information areas such as vertical toolbars 236 and 238 of FIG.2.” *Id.*, 17:12-19; FIG. 2.

117. Because Lider teaches determining the maximum number of horizontal toolbars the display can contain and also teaches how to determine whether the display can contain multiple types of user interface devices other than a horizontal toolbar—such as vertical toolbars, vertically arranged information areas, windows, and panels—in my opinion a POSITA would understand Lider as teaching that if it is determined that a maximum of one horizontal toolbar can be displayed (*i.e.*, if it is determined that the view cannot contain a second horizontal navigation bar), then “*a different user interface device*” that the display could contain such as, for example, a vertical toolbar, a window, or panel should be rendered for the second navigation bar instead.

118. Lider further discloses rendering “*a different user interface device*” by teaching the display of a “reduced display form” of a toolbar so that the toolbar fits within the bounds of a view. EX1005, 12:4-12. In my opinion a POSITA would find it obvious that if a second user interface cannot contain a second horizontal

toolbar, a different user interface device that could be contained within the user interface would need to be rendered instead.

119. Specifically, in my opinion it would have been obvious to a POSITA that rendering “*a different user interface device*” in place of a second horizontal navigation bar after determining that the user interface cannot contain a second horizontal navigation bar is merely the simple substitution of one known user interface element (*i.e.*, horizontal toolbars, as Lider teaches) for another known user interface element (*e.g.* a vertical toolbar, vertically arranged information area, window, panel, or “reduced form” as Lider teaches) to obtain predictable results (*i.e.* display of a user interface containing elements that will fit within the available area).

120. A POSITA would have been able to successfully implement those design changes because, as explained above, Lider teaches how to display both horizontal toolbars and “[o]ther types of information areas besides toolbars” such as “windows or panels displaying controls and/or status information... in any desired configuration and/or position within the view 208.” EX1005, 8:13-17, 4:22-24.

121. It is my opinion that it would also have been obvious for a POSITA to try rendering “*a different user interface device*” that the display can contain such as, for example, the “types of information areas besides toolbars” Lider teaches

rendering “*a different user interface device*” (*Id.*) in place of a second horizontal navigation bar if it was determined that the user interface cannot contain a second horizontal navigation bar, because doing so would have merely involved choosing from a finite number of identified user interface elements Lider discloses.

122. Rendering a “*user interface device*” that will fit within the available display area would be a predictable solution to the problem of the user interface not being able to contain a second horizontal navigation bar, and a POSITA would have a reasonable expectation of success due to Lider’s teaching of how to display vertical toolbars, vertically arranged information areas, windows, panels, and “reduced form” within the user interface. EX1005, 8:13-17, 4:22-24.

123. Lider’s disclosure of displaying “[o]ther types of information areas besides toolbars” within the user interface (EX1005, 8:13-17, 4:22-24) in my opinion would have motivated a POSITA to combine this teaching with Lider’s disclosure of using size thresholds to determine whether the user interface can contain a second horizontal navigation bar (*Id.*, 17:3-14; *see also id.*, 17:16-19 (teaching “similar determinations can be made for... vertically arranged information areas such as vertical toolbars...”)) in order to cause “*a different user interface*” to be displayed in place of a second horizontal navigation bar if it was determined that the user interface could not contain a second horizontal navigation bar. As explained above, in my opinion a POSITA would have a reasonable

expectation of success in implementing this combination because of Lider's teachings.

124. Moreover, in my opinion it would have been common sense for a POSITA to cause "*a different user interface device*" to be rendered in the user interface instead of a second horizontal navigation bar after determining that the user interface cannot contain the latter. A POSITA would have been motivated to display Lider's user interface with elements that fit therein, and would have had a reasonable expectation of success in doing so due to Lider's teaching of size thresholds to determine whether the user interface can contain elements including, for example, horizontal and vertical toolbars.

125. For all of these reasons, to the extent that Lider does not disclose "*if a second user interface, associated with the selection, can not contain a second navigation bar, rendering a different user interface device for the second navigation bar in the second user interface*", in my opinion it would have been obvious to a POSITA.

ii. Claim 2

a. [2.0] The method as defined in claim 1,

126. See Claim 1, §IX(A)(i), *supra*.

b. [2.1] further comprises the processor determining one or more of a content and a format of the second navigation bar.

127. In my opinion Lider discloses and renders obvious the method of

claim 1 “*further compris[ing] the processor determining one or more of a content and a format of the second navigation bar.*”

128. Lider teaches using a processor to perform its disclosed and claimed methods. “Processor 502,” depicted in Figure 10, “can be one or more processors or processing circuits to execute program code and control basic operations of the device 500.” EX1005, 19:30-32. Lider further discloses “software for display of information areas” that “can include *instructions that enable processor 502 to perform functions described herein...*” *Id.*, 19:54-57.

129. Concerning determining “*one or more of a content and a format of the second navigation bar,*” the ’168 Patent teaches the following:

With each user interface, the panel manager 536 can determine the content and format of the navigation bar... For example, the navigation bar 2208, in FIG. 22A, is a single banner navigation bar across the top of the screen with only four different user interface devices... if the content of that navigation bar is too great to be provided over the banner area... the user interface may have to change to another user interface 2212, as shown in FIG. 22B. Here, the navigation bar 2216 is displayed vertically as a series of user selectable devices arranged in rows... because the navigation bar could not be displayed across the top of a

banner with the amount of information that needs to be provided in the navigation bar. EX1001, 45:19-37.

130. Thus, the '168 Patent only discloses that determining the content and format of a toolbar includes, for example, determining “the amount of information that needs to be provided,” the number of “user interface devices,” and the location and orientation of the toolbar on the screen (*e.g.* “a single banner... across the top of the screen” or “vertically as a series of user selectable devices arranged in rows”). But this was known in the prior art.

131. It is my opinion that Lider discloses and renders obvious determining “*one or more of a content and a format of the second navigation bar*,” as claimed in the '168 Patent, by teaching that if “the area of the vertical toolbar 238 displayed in the view 208 has been reduced...” such that “the text and icons of the toolbar 238 can no longer be displayed completely in the view 208,” then “a feature allows a reduced display object or form 244 for an information area to be displayed.” EX1005, 10:48-51; *compare* toolbar 238 depicted in Lider FIG.2 *with* toolbar 238 and reduced form 244 depicted in FIG. 4.

132. Thus, in my opinion a POSITA would understand that Lider teaches a processor determining the content and format of a navigation bar such as, for example, “the area of” the toolbar, and “the text and icons of the toolbar” that are to be displayed. *Id.*

133. Based on Lider’s disclosures, it is also my opinion that a POSITA would further understand that such “*determining*” would be performed by Lider’s processor. *Id.*, 19:30-32, 19:54-57.

iii. Claim 3

a. [3.0] The method as defined in claim 2,

134. See Claim 2, §IX(A)(ii), *supra*.

b. [3.1] further comprises the processor determining one or more of a format and a characteristic of the second user interface.

135. In my opinion Lider discloses and renders obvious the “*method as defined in claim 2, further compris[ing] the processor determining one or more of a format and a characteristic of the second user interface.*”

136. As explained with respect to Claim 2.1, *supra*, Lider teaches using a processor to perform its methods. Lider’s “*processor operations can include determining a size of the view*, where display modes for the information areas are based on the determined view size.” *Id.*, 2:63-65.

137. Concerning determining “*one or more of a format and a characteristic of the second user interface*,” according to the ’168 Patent, “the panel manager 536 can determine the format and characteristics of the user interface, the content in the navigation bar, and/or what other information needs to be provided... These characteristics determine the location of the navigation bar and how the navigation bar may be navigated.” EX1001, 45:38-43.

138. Further, “the space available for the navigation bar in the banner section of the user interface, or another section of the user interface, and the amount of content that needs to be displayed by the navigation bar. ***Based on the available space and the amount of space needed, the panel manager can determine if the navigation bar can be displayed*** in certain situations or certain locations.” *Id.*, 45:48-54.

139. Thus, ’168 Patent discloses determining the format and characteristic of a user interface includes determining (1) “the section of the user interface” where a navigation bar is to be displayed, (2) “the space available for the navigation bar,” and (3) “the location of the navigation bar.” This was known in the prior art.

140. Lider discloses determining “*one or more of a format and a characteristic of the second user interface*” as claimed in the ’168 Patent. Lider Figure 4, for example, depicts a GUI where “the view 208 has been reduced in the horizontal dimension compared to the view 208 of FIG. 2, and has maintained the same vertical dimension.” EX1005, 10:38-41. Lider teaches that if “the area of the vertical toolbar 238 displayed in the view 208 has been reduced by moving of the right border of the view 208 toward the left,” such that “the text and icons of the toolbar 238 can no longer be displayed completely in the view 208 [then] a feature allows a reduced display object or form 244 for an information area to be

displayed.” *Id.*, 10:48-51.

141. It is my opinion that a POSITA would understand that Lider teaches determining a format and characteristic of the user interface such as, for example, the horizontal and vertical dimensions of the user interface, or the locations of the user interface’s borders. *Id.*; *see also, id.* at 1:56-60 (teaching “determining a size of the view”).

142. Based on Lider’s disclosures, in my opinion a POSITA would further understand that such determination would be made by Lider’s processor. EX1005, 19:30-32, 19:54-57.

iv. Claim 4

a. [4.0] The method as defined in claim 2,

143. See Claim 2, §IX(A)(ii), *supra*.

b. [4.1] wherein the determination of if a second user interface, associated with the selection, can contain a second navigation bar comprises the processor comparing one or more of the content and the format of the second navigation bar with one or more of the format and the characteristic of the second user interface.

144. It is my opinion that Lider discloses and renders obvious the “*method as defined in claim 2, wherein the determination of if a second user interface, associated with the selection, can contain a second navigation bar comprises the processor comparing one or more of the content and the format of the second navigation bar with one or more of the format and the characteristic of the second*

user interface.”

145. As explained with respect to Claim 2.1, §IX(A)(ii)(b), *supra*, Lider teaches the use of a processor to perform its methods. With respect to determining whether the second user interface “*can contain a second navigation bar*” by “*comparing one or more of the content and the format of the second navigation bar with one or more of the format and the characteristic of the second user interface,*” according to the ’168 Patent “the panel manager 536 determines if the user interface, based on its format and characteristics, can contain the navigation bar based on the navigation bar’s content and format...” EX1001, 45:44-47. “Based on the available space and the amount of space needed,” the ’168 Patent teaches, “the panel manager 536 can determine if the navigation bar can be displayed in certain situations or in certain locations.” *Id.*, 45:51-54.

146. Thus, the ’168 Patent discloses comparing “the available space” (*i.e.*, “*one of the format and the characteristic of the user interface*”) with “the amount of space needed” (*i.e.*, “*one of the content and the format of the second navigation bar*”) to determine whether the second user interface can contain a second navigation bar.

147. Lider teaches this limitation, as disclosed by the ’168 Patent, by describing that if “the area of the vertical toolbar 238 displayed in the view 208 has been reduced” such that “the text and icons of the toolbar 238 can no longer be

displayed completely in the view 208 [then] a feature allows a reduced display object or form 244 for an information area to be displayed.” EX1005, 10:46-51; FIG. 8.

148. In my opinion a POSITA would understand Lider teaches the comparison of “the area... in the view” (*i.e.*, “*one of the format and the characteristic of the user interface*”) with “the text and icons of the toolbar” (*i.e.*, “*one of the content and the format of the second navigation bar*”) to determine whether the user interface can contain the toolbar.

149. Lider further teaches that “the reduced form can be displayed when any portion of the associated information area is outside the view 208... when an information area has a threshold amount of its area outside the view 208, or when any portion of the items displayed by the information area are outside the view 208.” *Id.*, 10:54-59; FIG. 8.

150. It is my opinion that a POSITA would understand Lider as teaching the comparison of, for example, the area of the information area and/or “the items displayed by the information area” (*i.e.*, “*one of the content and the format of the second navigation bar*”) with the area of the “view 208” (*i.e.*, “*one of the format and the characteristic of the user interface*”) to determine whether the user interface can contain the toolbar.

151. Based on Lider’s disclosures, in my opinion a POSITA would further

understand that such comparison would be made by Lider's processor. EX1005, 19:30-32, 19:54-57.

v. Claim 5

a. [5.0] The method as defined in claim 2,

152. See Claim 2, §IX(A)(ii), *supra*.

b. [5.1] wherein if the second navigation bar is too large for the second user interface, the processor renders different user interface device.

153. In my opinion Lider discloses and renders obvious the “*method as defined in claim 2, wherein if the second navigation bar is too large for the second user interface, the processor renders different user interface device.*”

154. As explained with respect to Claim 2.1, *supra*, Lider teaches the use of a processor to perform its methods. Lider further teaches, for example, that if “the area of the vertical toolbar 238 displayed in the view 208 has been reduced” such that “the text and icons of the toolbar 238 can no longer be displayed completely in the view 208 [then] a feature allows a reduced display object or form 244 for an information area to be displayed.” EX1005, 10:46-51; FIG. 8.

155. It is my opinion that a POSITA would understand Lider teaches that if a navigation bar such as “vertical toolbar 238” is too large for the second user interface (*i.e.* “view 208”), then a “*different user interface device*” is rendered such as “reduced display object or form 244.”

156. Specifically, in my opinion it would have been obvious to a POSITA

that rendering “*a different user interface device*” “*if the second navigation bar is too large for the second user interface*” is merely the simple substitution of one known user interface element (*i.e.*, horizontal toolbars, as Lider teaches) for another known user interface element (*e.g.* a vertical toolbar, vertically arranged information area, window, panel, or “reduced form” as Lider teaches) to obtain predictable results (*i.e.* display of user interface elements that are not too large to fit within the available area).

157. A POSITA would have been able to successfully implement those design changes because, as explained above, Lider teaches how to display both horizontal toolbars and “[o]ther types of information areas besides toolbars” such as “windows or panels displaying controls and/or status information... in any desired configuration and/or position within the view 208.” EX1005, 8:13-17, 4:22-24.

158. In my opinion it would also have been obvious for a POSITA to try rendering “*a different user interface device*” that is not too large such as, for example, the “types of information areas besides toolbars” Lider teaches (EX1005, 8:13-17, 4:22-24) in place of a “*second horizontal navigation bar [that] is too large for the second user interface,*” because doing so would have merely involved choosing from a finite number of identified user interface elements Lider discloses.

159. Rendering a “*user interface device*” that is not too large for the

available display area would be a predictable solution to the problem of “*the second navigation bar [being] too large for the second user interface,*” and a POSITA would have a reasonable expectation of success due to Lider’s teaching of how to display multiple different types of “*user interface device*” such as vertical toolbars, vertically arranged information areas, windows, panels, and “reduced form” within the user interface (EX1005, 8:13-17, 4:22-24) as well as Lider’s use of size thresholds to determine whether the display can contain “*user interface devices*” other than horizontal toolbars such as, for example, vertical toolbars. *Id.* 17:16-19.

160. Lider’s disclosure of displaying “[o]ther types of information areas besides toolbars” within the user interface (EX1005, 8:13-17, 4:22-24) in my opinion would have motivated a POSITA to combine this teaching with Lider’s disclosure of using size thresholds to determine whether something is too large to be displayed (*Id.*, 10:46-51, FIG. 8; *see also id.*, 17:16-19 (teaching “similar determinations can be made for... vertically arranged information areas such as vertical toolbars...”)) in order to cause “*a different user interface*” to be displayed in place of a second horizontal navigation bar “*if the second navigation bar is too large for the second user interface.*” As explained above, a POSITA would have a reasonable expectation of success in implementing this combination because of Lider’s teachings.

161. Moreover, in my opinion it would have been common sense for a POSITA to cause “*a different user interface device*” to be rendered in the user interface instead of a second horizontal navigation bar after determining that “*if the second navigation bar is too large for the second user interface.*” See *Cimline, Inc.*, 413 F. App’x at 245. A POSITA would have been motivated to display Lider’s user interface with elements that are not too large to fit therein, and would have had a reasonable expectation of success in doing so due to Lider’s teaching of size thresholds to determine what is and is not too large to be displayed.

162. For all of these reasons, to the extent that Lider does not disclose the “*method as defined in claim 2, wherein if the second navigation bar is too large for the second user interface, the processor renders different user interface device*” in my opinion doing so have been obvious to a POSITA.

163. Based on Lider’s disclosures, in my opinion a POSITA would further understand that the “*different user interface device*” would be rendered by Lider’s processor. EX1005, 19:30-32, 19:54-57.

vi. Claim 6

a. [6.0] The method as defined in claim 2,

164. See Claim 2, §IX(A)(ii), *supra*.

b. [6.1] further comprises the processor presenting the second user interface with the second navigation bar.

165. In my opinion Lider discloses and renders obvious the “*method as*

defined in claim 2, further compris[ing] the processor presenting the second user interface with the second navigation bar.”

166. As explained with respect to Claim 2.1, §IX(A)(ii)(b), *supra*, Lider teaches the use of a processor to perform its methods. Lider further discloses and claims “at least one processor... operative to perform operations comprising... causing a display by a device of a portion of a data presentation within a view in a graphical interface, the graphical interface displayed on a display of a display device,” and “causing a display of one or more information areas within the view” (EX1005, 22:50-54; 62-63), which “information areas” Lider teaches can be toolbars. *Id.*, 1:55-56.

167. Additionally, as explained concerning claim 1.2 above, Lider teaches that the display area defined by “view 208” can be replaced entirely with an email interface (*i.e.*, *a second user interface*) and any associated toolbars. *See* §IX(A)(i)(c).

vii. Claim 7

a. [7.0] The method as defined in claim 2, further comprises:

168. See Claim 2, §IX(A)(ii), *supra*.

b. [7.1] the processor determining if a drop-down navigation bar is needed;

169. While Lider does not explicitly use the phrase “drop-down navigation bar,” it is my opinion that this limitation is inherently disclosed and would have

been obvious in view of the knowledge of a POSITA. GUIs with “drop-down” menus predate both Lider and the ’168 Patent by decades, and would have been well known to a POSITA at the time of invention of the ’168 Patent. As explained below, graphical user interfaces with “drop-down” menus predate both Lider and the ’168 Patent, and would have been well known to a POSITA at the time of invention of the ’168 Patent.

170. For example, Webster’s New World Dictionary of Computer Terms from 1994 (“Webster’s”) defines a “drop-down menu” and describes its functionality as follows: “[a] type of menu that drops from the menu bar when requested and remains open without further action until the user closes it or chooses a menu item. Same as PULL-DOWN MENU.” EX1008, 191. Webster’s defines and describes a “pull-down menu” in relevant part as “[a] second-level menu, or list of commands, that appears from the top of the screen when a command needs to be given and then disappears when the selection has been made. A pull-down menu is usually used as an extension to a menu bar.” *Id.*, 473.

171. Thus, in my opinion the definition and functionality of a “drop-down menu” would have been well known to a POSITA as of the publishing of Webster’s New World Dictionary of Computer Terms, Fifth Edition, 1994, which predates both Lider and the ’168 Patent.

172. By way of further, non-limiting example, Microsoft Windows 1.0 was

publicly released in 1985 and “[a]t the time of its release, Windows 1.0... introduced many computer users to drop-down menus, icons, and dialogue boxes.” EX1009.

173. I was aware of Microsoft Windows and its GUI features, including drop-down menus, around the time when Windows 3.1 was released in 1992, and the dictionary definitions above from 1994 comport with my own understanding of what a drop-down menu is and how it functions. In my opinion, a POSITA at the time of both Lider and the ’168 Patent would have also been familiar with Microsoft Windows 1.0 and later versions, and their implementation of “drop-down menus,” and would similarly understand that the above dictionary definitions accurately reflect the nature and functionality of drop-down menus as they would be known in the art.

174. The ’168 Patent teaches that a “Smart TV represents the trend of technological **convergence between computers and television sets.**” EX1001, 1:53-54. Because a “Smart TV” is effectively a television with a computer inside, in my opinion a POSITA would have been motivated to implement common, well-known computer GUI elements such as drop-down menus in the GUI of a “Smart TV.”

175. This is because a POSITA would have understood that drop-down menus are very space-efficient and, because televisions are designed to be viewed

from greater distances than computer monitors—*e.g.* from a couch instead of a desk chair—television user interface elements are typically large, necessitating efficient use of available display area.

176. Similarly, Lider discloses “a television with one or more processors embedded therein” (EX1005, 19:24-25), which a POSITA would understand is a “Smart TV represent[ing] the... convergence between computers and television sets” as described by the ’168 Patent. EX1001, 1:53-54. Lider discloses that “[o]ther types of information areas besides toolbars can be displayed in the view 208. For example, windows or panels displaying controls and/or status information can be displayed, in any desired configuration and/or position within the view 208.” EX1005, 8:13-17. It is my opinion that “drop down menus” are covered by this broad disclosure and, therefore, inherently disclosed.

177. Moreover, a POSITA would recognize that drop-down menus are a type of “information areas besides toolbars,” as disclosed by Lider, and would thus have been motivated to implement common, well-known computer GUI elements such as drop-down menus in the GUI of Lider’s intelligent television. In addition, such computing platforms allow the use of standard development tools which already implement common controls such as the well-known drop-down menus.

178. Thus, in my opinion it would have been obvious to a POSITA to determine whether a drop-down navigation bar, a well-known computer GUI

element, is needed in the graphical user interface of an intelligent television—effectively a combined computer and TV—to efficiently utilize the available display area.

c. [7.2] if the drop-down navigation bar is needed, the processor rendering the drop-down navigation bar as the second navigation bar; and

179. As explained with respect to Claim 2.1, §IX(A)(ii)(b), *supra*, Lider teaches the use of a processor to perform the methods Lider discloses and claims. As explained in Claim 7.1 above, drop-down menus were well known to a POSITA. §IX(A)(vii)(b).

180. Further, a POSITA would understand that microprocessors are responsible for carrying out and implementing functionality in an intelligent television, including rendering functions.

181. Thus, in my opinion it would have been obvious to a POSITA to cause the processor of an intelligent television—a combined computer and TV—to render a drop-down navigation bar, a well-known computer GUI element, as the second navigation bar if it was determined that a drop-down navigation bar was needed to efficiently utilize the available display area..

d. [7.3] if the drop-down navigation bar is not needed, the processor rendering a vertical navigation bar as the second navigation bar.

182. Lider teaches that, “both horizontal and vertical toolbars are displayed

within the view 208.” EX1005, 7:43-44. Lider further teaches that, “[i]n some implementations, vertical toolbar 236 can be displayed...” *Id.*, 9:24-25.

183. Lider describes the use of size thresholds to determine the number of horizontal toolbars that can be displayed within a view (*e.g.*, *id.*, 17:3-14), and further teaches that “similar determinations can be made for... vertically-arranged information areas such as vertical toolbars 236 and 238 of FIG. 2.” *Id.*, 17:16-19.

184. In my opinion a POSITA would understand that drop-down menus may be needed in situations where, for example, available display area is limited and, therefore, a list of user-selectable options should be displayed only when the user wants to access those options.

185. If a POSITA determined that a drop-down menu was not needed—for example, where sufficient available display area exists to display a list of user-selectable options constantly rather than hidden in a drop-down menu—it would have been obvious to render a vertical navigation bar in view of Lider’s teachings. Lider discloses, for example, that “vertical toolbar 238” is displayed in “view 208” when there is sufficient space, and that a “reduced display object or form 244” is displayed instead when there is insufficient space to display “vertical toolbar 238.” EX1005, 10:46-64.

186. In other words, Lider teaches displaying a vertical navigation bar when there is enough available display space to do so. Further, a POSITA would

understand that microprocessors are responsible for carrying out and implementing functionality in an intelligent television, including rendering functions.

187. Thus, in my opinion it would have been obvious to a POSITA to program the processor to render a vertical navigation bar as the second navigation bar if it was determined that a drop-down navigation bar was not needed.

188. Specifically, it would have been obvious to a POSITA that rendering “*a vertical navigation bar*” “*if the drop-down navigation bar is not needed*” is merely the simple substitution of one known user interface element (*i.e.*, vertical navigation bars, as Lider teaches (*see, e.g.*, EX1005, 9:24-25) for another known user interface element (*e.g.* drop-down menus) to obtain predictable results (*i.e.* avoiding the display of user interface elements that are determined to be “not needed”). A POSITA would have been able to successfully implement those design changes because, as explained above, Lider teaches how to display vertical toolbars (*Id.*, 7:43-44, 9:24-25) as well as how to use size thresholds to determine whether a vertical toolbar will fit within the available display area. *Id.*, 17:16-19.

189. A POSITA would have been motivated to cause a “*vertical navigation bar*” to be rendered if a drop-down menu is not needed because, as explained *supra*, Lider teaches displaying a vertical navigation bar when there is enough available display space to do so. EX1005, 10:46-64.

190. In my opinion it would also have been obvious for a POSITA to try

causing Lider's processor to render "*a vertical navigation bar*" "*if the drop-down navigation bar is not needed*," because doing so would have merely involved choosing from a finite number of identified user interface elements Lider discloses. Causing Lider's processor to render "*a vertical navigation bar*" instead of an unneeded drop-down menu would be a predictable solution because Lider teaches that vertical navigation bars should be displayed when there is enough room to do so, and a POSITA would have a reasonable expectation of success due to Lider's teachings. EX1005, 10:46-64, 17:16-19 (teaching use of size thresholds to determine whether a vertical toolbar can be displayed).

191. For all of these reasons, to the extent that Lider does not inherently disclose the "*method as defined in claim 2, further comprises... if the drop-down navigation bar is not needed, the processor rendering a vertical navigation bar as the second navigation bar*," in my opinion doing so have been obvious to a POSITA.

192. Based on Lider's disclosures, it is further my opinion that a POSITA would further understand that the "*vertical navigation bar*" would be rendered by Lider's processor. EX1005, 19:30-32, 19:54-57

viii. Claim 10

- a. [10.0] The method as defined in claim 2, further comprises the processor presenting the second user interface with the second navigation bar.**

193. See Claim 6, §IX(A)(vi), *supra*. Because Claims 6 and 10 of the '168 Patent are identical, my opinions expressed above with respect to Claim 6 apply equally to Claim 10.

ix. Claim 11

- a. [11.0] An intelligent television system comprising:**

194. As explained with respect to Claim 1.0, §IX(A)(i)(a), *supra*, Lider discloses a “television with one or more processors embedded therein and/or coupled thereto.” EX1005, 19-25.

195. Thus, it is my opinion that Lider discloses and renders obvious “*an intelligent television system.*”

- b. [11.1] a memory operable to store social media data; and**

196. In my opinion Lider also discloses and renders obvious “*a memory operable to store social media data*” by disclosing “Memory 504,” that “may be any suitable processor-readable storage medium, such as random access memory (RAM), read-only memory (ROM), Electrical Erasable Read-only Memory (EEROM), Flash memory, etc...” *Id.*, 19:45-52. Lider teaches that “memory 504... can store data for data presentations, information areas, graphical interfaces, and other data used in the features described herein.” *Id.*, 19:60-63.

197. Lider further discloses that users “can receive information, status, messages and notifications from other users and *a social network* via a social network system...” *Id.*, 5:17-19; *see also* FIG. 1 (depicting client devices communicating via a network with a server system that includes a “Social Network Database”).

198. Lider teaches that “server system 102 provides appropriate data to the client devices such that each client *device can receive shared content uploaded to the social network system* via the server system 102.” *Id.*, 5:24-27. According to Lider, “[t]he graphical interface can display a data presentation, such as content provided by one or more users of the social network system. The data presentation can be provided by the server device 104 to one or more client devices 120-126 over the network 130.” *Id.*, 5:48-52.

199. Thus, it is my opinion that a POSITA would understand that Lider teaches the claimed “*memory operable to store social media data.*”

c. [11.2] a processor in communication with the memory, the processor programmed to:

200. In my opinion Lider discloses and renders obvious “*a processor in communication with the memory*” by disclosing “device 500” that includes a “Processor 502” in communication with a “Memory 504” as shown in annotated Figure 10 below.

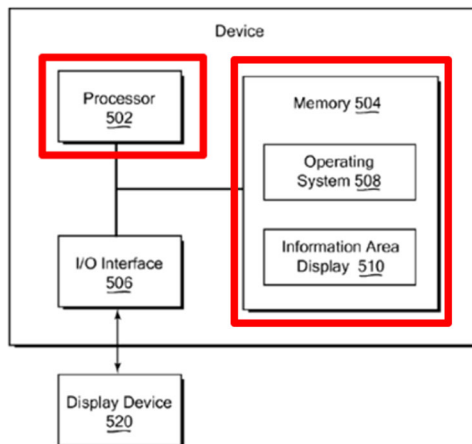


FIG. 10

201. It is my opinion that a POSITA would understand from Lider’s Figure 10 that the components depicted in the “device 500” box, such as “Processor 502,” “Memory 504,” and “I/O Interface 506” are “*in communication*” with one another based on the connection between those components in Figure 10.

202. Lider teaches the use of a processor to perform its methods. Lider teaches, for example, that “Processor 502,” depicted in Figure 10, “can be one or more processors or processing circuits to execute program code and control basic operations of the device 500.” *Id.*, 19:30-32.

203. Lider further discloses the “*processor*” is “*programmed*” by disclosing “software for display of information areas” that “can include instructions that enable processor 502 to perform functions described herein...” *Id.*, 19:54-57.

204. Thus, it is my opinion that Lider discloses and renders obvious “a

processor in communication with the memory, the processor programmed to”
perform the remaining claim limitations as explained below.

d. [11.3] execute a user interface application, the user interface application:

205. In my opinion Lider discloses and renders obvious that the processor is programmed to “*execute a user interface application*” by teaching that “[t]he view can be displayed within an application program interface, such as a window of a web browser or other program.” EX1005, 4:13-15.

206. Lider further discloses that “the GUI 200 can be displayed as part of an operating system or application running on a client device or server device.” EX1005, 6:2-4. As Lider expressly describes, its implementations can take “the form of a computer program product accessibly stored on a computer-readable medium providing program instructions or code for use by or implemented by a computer or any instruction execution system, such as one or more processors...” *Id.*, 14:5-9.

207. “[M]ethod 300 of displaying information areas in a view of a graphical interface” Lider explains, “can be a component of an application running on the client device, or a separate application or software running in conjunction with other applications and operating system [sic].” *Id.*, 13:61-63; 14:18-21.

208. Thus, in my opinion a POSITA would understand that Lider’s processor is programmed to “*execute a user interface application.*”

- e. **[11.4] receiving a selection associated with a first navigation bar in the user interface of the intelligent television;**

209. See Claim 1.1, §IX(A)(i)(b), *supra*. “Any suitable programming language and programming techniques may be user to implement the routines” Lider teaches, and “the routines may be executed on a single processing device or multiple processor.” EX1005, 20:44-45; 20:48-49. Because Lider’s user interface application necessarily runs on the processor (*see* EX1005, 20:44-45; 20:48-49), in my opinion a POSITA would understand that Lider discloses that the user interface application performs this claimed functionality.

- f. **[11.5] determine if a second user interface, associated with the selection, can contain a second navigation bar;**

210. See Claim 1.2, §IX(A)(i)(c), *supra*. Because Lider’s user interface application necessarily runs on the processor (*see* EX1005, 20:44-45; 20:48-49), in my opinion a POSITA would understand that Lider discloses that the user interface application performs this claimed functionality.

- g. **[11.6] if a second user interface, associated with the selection, can contain a second navigation bar, rendering a horizontal navigation bar as the second navigation bar in the second user interface; and**

211. See Claim 1.3, §IX(A)(i)(d), *supra*. Because Lider’s user interface application necessarily runs on the processor (*see* EX1005, 20:44-45; 20:48-49), in my opinion a POSITA would understand that Lider discloses that the user interface application performs this claimed functionality.

- h. [11.7] if a second user interface, associated with the selection, can not contain a second navigation bar, rendering a different user interface device for the second navigation bar in the second user interface.**

212. See Claim 1.4, §IX(A)(i)(e), *supra*. Because Lider's user interface application necessarily runs on the processor (*see* EX1005, 20:44-45; 20:48-49), in my opinion a POSITA would understand that Lider discloses that the user interface application performs this claimed functionality.

213. Thus, for all of the reasons explained above, it is my opinion that Lider discloses and renders obvious the elements of Claim 11.

x. Claim 12

- a. [12.0] The intelligent television system as defined in claim 11, wherein the user interface application:**

214. See Claim 11, §IX(A)(ix), *supra*.

- b. [12.1] determines one or more of a content and a format of the second navigation bar;**

215. See Claim 2, §IX(A)(ii), *supra*. Because Lider's user interface application necessarily runs on the processor (*see* EX1005, 20:44-45; 20:48-49), in my opinion a POSITA would understand that Lider discloses that the user interface application performs this claimed functionality.

- c. [12.2] determines one or more of a format and a characteristic of the second user interface; and**

216. See Claim 3, §IX(A)(iii), *supra*. Because Lider's user interface application necessarily runs on the processor (*see* EX1005, 20:44-45; 20:48-49), in

my opinion a POSITA would understand that Lider discloses that the user interface application performs this claimed functionality.

- d. **[12.3] presents the second user interface with the second navigation bar.**

217. See Claim 6, §IX(A)(vi), *supra*. Because Lider's user interface application necessarily runs on the processor (*see* EX1005, 20:44-45; 20:48-49), in my opinion a POSITA would understand that Lider discloses that the user interface application performs this claimed functionality.

xi. Claim 13

- a. **[13.0] The intelligent television system as defined in claim 12,**

218. See Claim 12, §IX(A)(x), *supra*.

- b. **[13.1] wherein the determination of if a second user interface, associated with the selection, can contain a second navigation bar comprises the processor comparing one or more of the content and the format of the second navigation bar with one or more of the format and the characteristic of the second user interface; and**

219. See Claim 4, §IX(A)(iv), *supra*.

- c. **[13.2] wherein if the second navigation bar is too large for the second user interface, the processor renders the different user interface device.**

220. See Claim 5, §IX(A)(v), *supra*.

xii. Claim 14

- a. [14.0] The intelligent television system as defined in claim 12, wherein the user interface application:**

221. See Claim 12, §IX(A)(x), *supra*.

- b. [14.1] determines if a drop-down navigation bar is needed;**

222. See Claim 7.1, §IX(A)(vii)(b), *supra*. Because Lider's user interface application necessarily runs on the processor (*see* EX1005, 20:44-45; 20:48-49), in my opinion a POSITA would understand that Lider discloses that the user interface application performs this claimed functionality.

- c. [14.2] if the drop-down navigation bar is needed, renders the drop-down navigation bar as the second navigation bar;**

223. See Claim 7.2, §IX(A)(vii)(c), *supra*. Because Lider's user interface application necessarily runs on the processor (*see* EX1005, 20:44-45; 20:48-49), in my opinion a POSITA would understand that Lider discloses that the user interface application performs this claimed functionality.

- d. [14.3] if the drop-down navigation bar is not needed, renders a vertical navigation bar as the second navigation bar; and**

224. See Claim 7.3, §IX(A)(vii)(d), *supra*. Because Lider's user interface application necessarily runs on the processor (*see* EX1005, 20:44-45; 20:48-49), in my opinion a POSITA would understand that Lider discloses that the user interface application performs this claimed functionality.

- e. **[14.4] wherein the drop-down navigation bar includes one or more drop down menus associated with top-level categories presented in the drop-down navigation bar, and wherein the vertical navigation bar includes categories presented vertically in the second user interface.**

225. Although Lider does not explicitly use the phrases “drop-down,” as explained concerning Claim 7 above, in my opinion this limitation is inherently disclosed and would have been obvious in view of the knowledge of a POSITA. §IX(A)(vii).

226. To the extent that Lider does not inherently disclose “top-level categories,” in my opinion this limitation is inherently disclosed and would have been obvious in view of the knowledge of a POSITA.

227. For example, Webster’s at page 191 defines a “drop-down menu” as “[a] type of **menu that drops from the menu bar when requested** and remains open without further action until the user closes it or chooses a menu item. Same as PULL-DOWN MENU.” EX1008, 191. Webster’s defines and describes a “pull-down menu” on page 473 in relevant part as “[a] **second-level menu, or list of commands, that appears from the top of the screen** when a command needs to be given and then disappears when the selection has been made. A pull-down menu is usually used as an extension to a menu bar.” *Id.*, 473.

228. In my opinion, a POSITA would have understood from the above definitions that a drop-down menu or pull-down menu is a “second-level menu”

and, thus, would understand that a drop-down menu or pull-down menu is “associated with top-level categories presented in the drop-down navigation bar,” the selection of which “top-level categories” could cause the display of a drop-down menu (*i.e.* “menu that drops from the menu bar when requested”).

229. Thus, it is my opinion that the limitation “*wherein the drop-down navigation bar includes one or more drop down menus associated with top-level categories presented in a drop-down navigation bar*” would have been obvious to a POSITA.

230. With respect to the limitation “*wherein the vertical navigation bar includes categories presented vertically in the second user interface*,” *Lider* teaches that “both horizontal and vertical toolbars are displayed in the view 208.” EX1005, 7:43-44. As shown below, *Lider* Figure 2 (annotated) depicts “vertical toolbar 236” and “vertical toolbar 238.” *Id.*, 9:24; 9:30; FIG. 2.

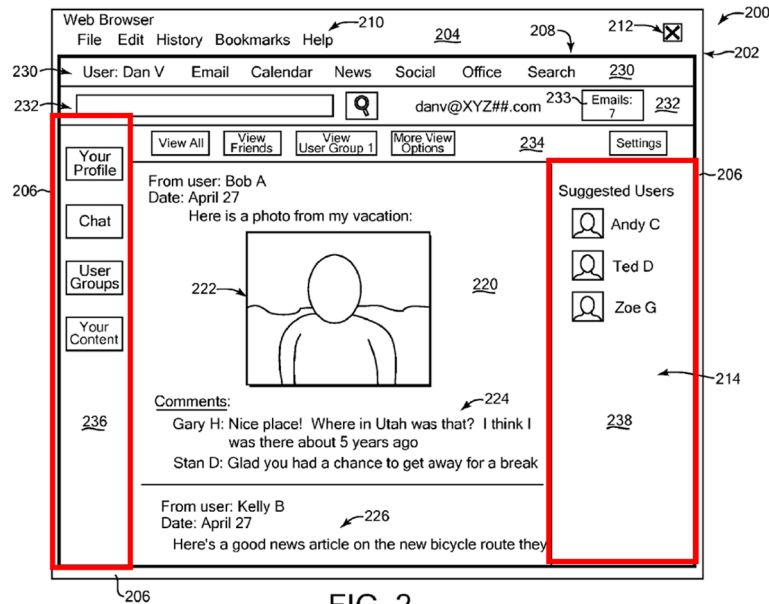


FIG. 2

231. “[V]ertical navigation toolbar 236” shown in annotated Figure 2 above, “displays several options related to social network functions, such as displaying the user’s profile information, displaying a chat interface to talk or type text to communicate with other users, displaying a list of the user’s user groups (such as “circles” or friends lists), and displaying the user’s own posted content.” *Id.*, 8:1-6; FIG. 2. Lider further teaches, for example, that “right side toolbar 238 can display a number of suggested users which have been found to be related to the viewing user through friends or contacts. Other information can also be displayed in the right side toolbar 238 depending on the other screens or interfaces selected from toolbars 236 or 230, such as a chat window, news items, etc.” *Id.*, 9:7-12.

232. Lider discloses and renders obvious that “*the vertical navigation bar includes categories presented vertically in the second user interface.*” For all of the

reasons explained above, in my opinion Lider discloses and renders obvious Claim 14 in view of the knowledge of a POSITA

xiii. Claim 15

- a. [15.0] The intelligent television system as defined in claim 12, wherein the user interface application presents the second user interface with the second navigation bar.**

233. See Claim 12, §IX(A)(x), *supra*. Claim 15 depends from Claim 12, but is identical in scope to Claim 12 because the limitation in Claim 15 is substantively identical to the last limitation in Claim 12. Thus, my opinions expressed above with respect to Claim 12 apply equally to Claim 15.

B. Ground 2: Claims 1-7, and 10-15 are Obvious Under 35 U.S.C. § 103 over Lider in view of Eibl and the Knowledge of a POSITA

i. Reasons to Combine Lider and Eibl

234. In my opinion a POSITA would have found it obvious to combine Lider with Eibl.

235. Both Lider and Eibl relate to graphical user interfaces.

236. Lider discloses a GUI for display on a device, which Lider teaches “can be any suitable computer system, server, or other electronic device or hardware device.” EX1005, 19:19-20. Lider teaches that the device upon which the GUI is displayed “includes a processor... a memory... and input-output (I/O) interface...” *Id.*, 19:27-29.

237. Similarly, Eibl discloses a GUI for display on a “measuring device”

having a display device, a processing device, and a databank. EX1006, [0010]-[0011].

238. Thus, in my opinion both Lider and Eibl are directed to providing a GUI on an electronic device.

239. Lider teaches altering the user interface in response to changes in the view size. *See, e.g.*, EX1005, 10:46-59; 15:39-16:29. Lider also teaches that different user interface devices, such as toolbars, windows, and panels, can be displayed in the view depending on the determined view size. *Id.*, 3:63-66; 4:22-24; 8:13-17; 10:46-59; 15:39-16:29.

240. Lider teaches that a given user interface device might have two display forms such as, for example, a normal form that is displayed when the available view size is sufficient, and a “reduced form” that is displayed “based on one or more of various conditions” such as, for example, when “the text and icons of the toolbar 238 can no longer be displayed completely in the view 208,” “when any portion of the associated information area is outside the view 208 and not displayed in the view 208, when an information area has a threshold amount of its area outside the view 208, or when any portion of the items displayed by the information area are outside the view 208.” *Id.*, 10:46-59.

241. Eibl’s display device provides a GUI for a measuring device such as, for example, an oscilloscope, wherein the display device displays a number of

dialogs, and wherein the user interface is adaptable such that the content, position, form, etc., of the dialogs may be changed during operation of the measuring device. EX1006, [0008]. Because the display device “preferably displays several dialogs side-by-side and/or one above the other and/or superimposed,” Eibl teaches its invention “guarantees a high information content of the display.” *Id.*, [0014].

242. While slight differences exist between the GUIs in Lider and Eibl, a POSITA would have understood that the adaptable dialog GUI designs from the Eibl device, such as drop-down menus, would have been useful in combination with the GUI of Lider’s “intelligent television” to achieve the “high information content of the display” as taught by Eibl. A POSITA would have understood that drop-down menus allow the efficient use of available display area because they only display items when a user wants to access them. A POSITA would have been successfully able to implement those design changes.

243. Specifically, in my opinion it would have been obvious to a POSITA that this combination is merely the simple substitution of one known user interface element (*e.g.* drop-down menus as taught by Eibl and well-known in the art for decades) for another (*e.g.* the horizontal and vertical toolbars, vertical information areas, windows, panels and other user interface elements taught by Lider) to obtain the predictable result of displaying a GUI that makes efficient use of the available display area.

244. Together, Lider and Eibl detail various aspects of a graphical user interface that presents user-selectable controls and provides an explicit motivation to combine.

245. A motivation to combine may also be found based on the “background knowledge, creativity, and common sense of [a] person of ordinary skill.” *Id.* Here, drop-down menus were well-known and within a POSITA’s background knowledge, as reflected by even general dictionary definitions.

246. Lider teaches that “[o]ther types of information areas besides toolbars *can be displayed* in the view 208. For example, windows or panels displaying controls and/or status information can be displayed, *in any desired configuration and/or position within the view 208.*” EX1005, 8:13-17. Thus, it is my opinion that Lider provides a POSITA with an express motivation to combine Lider’s teachings with references that teach “other types of information areas” displayable within a GUI, such as Eibl’s teaching of a drop-down menu.

247. Eibl is a natural extension of Lider, and complements Lider by disclosing additional details relating to GUI design and generation, including using adaptable elements such as drop-down menus to generate GUIs.

248. In my opinion it would have been obvious to a POSITA to implement Eibl’s drop-down menu on Lider’s intelligent television GUI if it was determined that a drop-down menu was needed.

249. The combination of Lider and Eibl merely combines prior art elements (*e.g.*, drop-down menus, processors, GUIs) according to known methods (*e.g.*, generating and presenting of adaptable GUIs) to yield predictable results (*e.g.*, provide the user with an ordered GUI with user-selectable controls).

250. The combination is nothing more than applying a known technique (*e.g.*, generating a drop-down menu in a GUI) to improve the similar GUI of Lider efficiently utilizing the available screen space by using drop-down menus, which a POSITA would understand are space-efficient because they only display items when a user wants to access them.

251. In my opinion the results of combining Lider and Eibl would have been predictable, and there would have been a reasonable expectation of success in the combination given that Lider teaches and/or suggests the use of “other types of information areas besides toolbars” such as “windows or panels displaying controls and/or status information.” *Id.* Eibl provides further details relating to the “other types of information areas besides toolbars” Lider contemplates. EX1005, 8:13-17. Eibl discloses and teaches a well-known user interface element—drop-down menus—which a POSITA would understand as a type of “windows or panels displaying controls and/or status information,” as taught by Lider.

252. Thus, in my opinion a POSITA would have been able to successfully implement Eibl’s drop-down menu in Lider’s intelligent television GUI.

ii. Claim 1

253. See Claim 1, §IX(A)(i), *supra*.

iii. Claim 2

254. See Claim 2, §IX(A)(ii), *supra*.

iv. Claim 3

255. See Claim 3, §IX(A)(iii), *supra*.

v. Claim 4

256. See Claim 4, §IX(A)(iv), *supra*.

vi. Claim 5

257. See Claim 5, §IX(A)(v), *supra*.

vii. Claim 6

258. See Claim 6, §IX(A)(vi), *supra*.

viii. Claim 7

a. [7.0] The method as defined in claim 2, further comprises:

259. See Claim 2, §IX(A)(ii), *supra*.

b. [7.1] the processor determining if a drop-down navigation bar is needed;

260. To the extent Lider does not inherently disclose a “drop-down navigation bar,” it is my opinion that this limitation would have been obvious in view of the teachings of Eibl.

261. Eibl discloses “drop-down menus” such as, for example, “input fields

10 [and] 11” depicted in annotated Figure 2 below. EX1006, [0028]; FIG. 2.

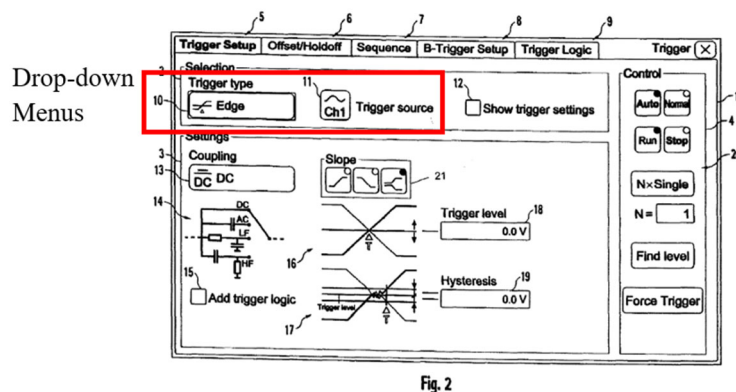


Fig. 2

262. Eibl teaches that “[i]f the input field 10 or 11 is selected, a list of selection options... is rolled down.” *Id.* Figure 3, annotated below, “shows a second dialog” depicting “after the selection of the input field 10,” which, Eibl teaches, “leads to the rolling down of selection list 40 with preset options.” *Id.*, [0033]; FIG. 3.

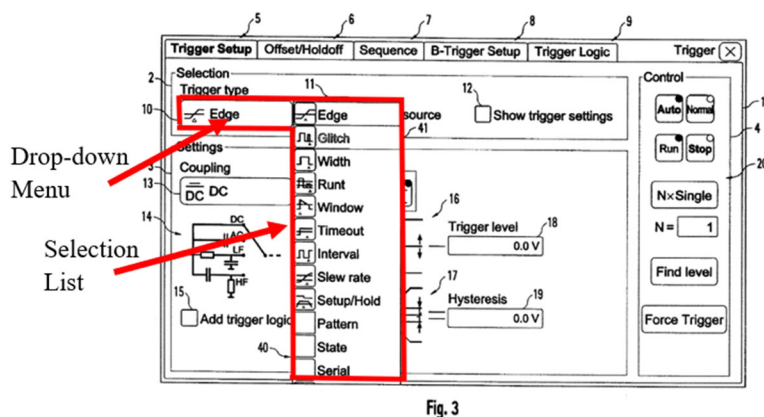


Fig. 3

263. Eibl further discloses drop-down menus with different formats than, for example, “input field 10” depicted in Figure 2. For example, Eibl Figure 5, annotated below, depicts “drop-down menu 63.” *Id.*, [0038]; FIG. 5.

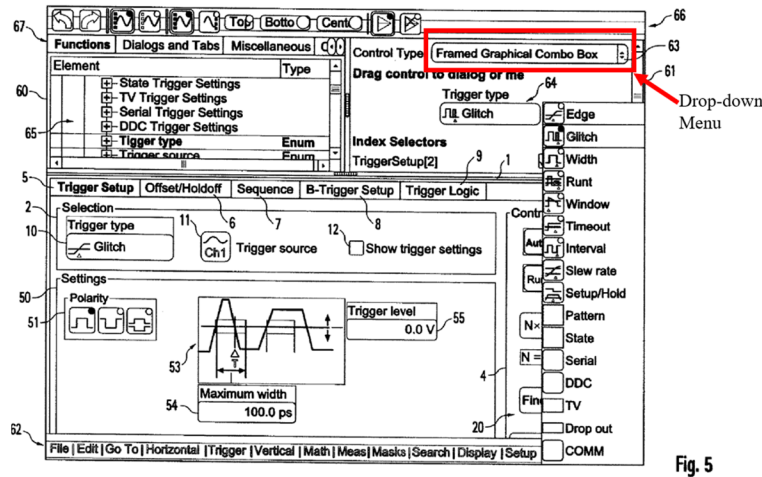


Fig. 5

264. Figure 6 of Eibl, annotated below, depicts “the dialog shown in FIG. 5 after the selection of the drop-down menu 63.” *Id.*, [0040]; FIG. 6. Eibl teaches that “drop-down menu 63 is rolled down here after selection. A list of possible display types 80... is now displayed.” *Id.*

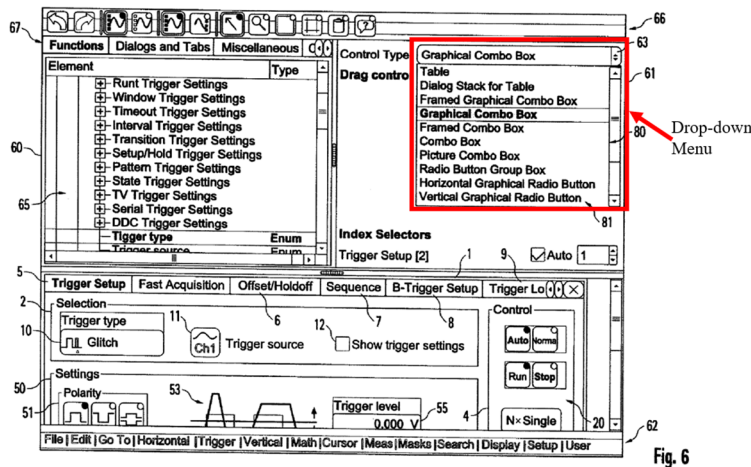


Fig. 6

265. In my opinion, at a minimum it would have been obvious to a POSITA that a processor determines if a drop-down navigation bar, such as the drop-down menus taught by Eibl, was needed in Lider’s GUI. This would involve using a known user interface element (drop-down menus) to achieve a predictable

result, wherein a POSITA would have a reasonable expectation of success in implementing the design.

266. It is my opinion that a POSITA would have been motivated to design Lider's GUI such that a processor determines whether a drop-down navigation bar was needed because, as explained concerning Claim 7, *supra*, a POSITA would have understood that drop-down menus are space-efficient. §IX(A)(vii)(b).

267. The combination of Lider and Eibl is consistent with Eibl's teaching that its user interface elements, such as drop-down menus, "guarantee[] a high information content of the display." EX1006, [0014]. This combination is also consistent with Lider's teaching that "[o]ther types of information areas besides toolbars can be displayed... in any desired configuration and/or position within the view..." EX1005, 8:13-17;

268. It is further my opinion that this limitation would also have been obvious in view of the knowledge of a POSITA. As explained concerning Claim 7, *supra*, graphical user interfaces with "drop-down" menus predate both Lider and the '168 Patent by decades, and would have been well known to a POSITA as being space efficient at the time of invention of the '168 Patent. §IX(A)(vii).

269. The '168 Patent teaches that a "Smart TV represents the trend of technological convergence between computers and television sets." EX1001, 1:53-54. Lider discloses that "[o]ther types of information areas besides toolbars can be

displayed in the view 208,” such as “windows or panels displaying controls and/or status information... in any desired configuration and/or position within the view 208.” EX1005, 8:13-17. Lider also expressly teaches using a processor to perform the functionalities it discloses. *See id.*, Fig. 10, 19:30-32, 19:54-57.

270. Thus, in my opinion it would have been obvious to a POSITA that a processor determines whether a drop-down navigation bar is needed in the GUI of an intelligent television to efficiently utilize the available display area.

c. [7.2] if the drop-down navigation bar is needed, the processor rendering the drop-down navigation bar as the second navigation bar; and

271. As explained with respect to Claim 2.1, §IX(A)(ii)(b), *supra*, Lider teaches the use of a processor to perform its methods.

272. As explained in Claim 7.1 above, §IX(A)(vii)(b), Eibl teaches multiple different formats of “drop-down menu” that can be displayed on a GUI. Eibl teaches, for example, that “[i]f the input field 10 or 11 is selected, a list of selection options... is rolled down.” EX1006, [0028]. Eibl’s Figure 3, annotated below, “shows a second dialog” depicting “after the selection of the input field 10,” which, Eibl teaches, “leads to the rolling down of selection list 40 with preset options.” *Id.*, [0033]; FIG. 3.

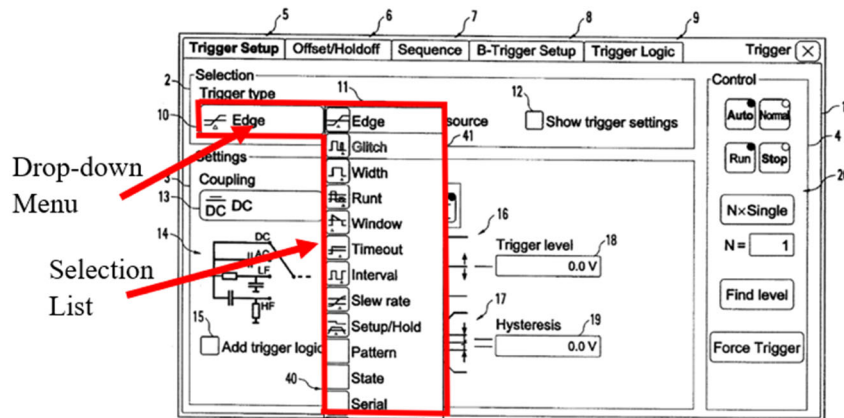


Fig. 3

273. Eibl Figure 6, annotated below, depicts “the dialog shown in FIG. 5 after the selection of the drop-down menu 63.” *Id.*, [0040]; FIG. 6. Eibl teaches that “drop-down menu 63 is rolled down here after selection. A list of possible display types 80... is now displayed.” *Id.*

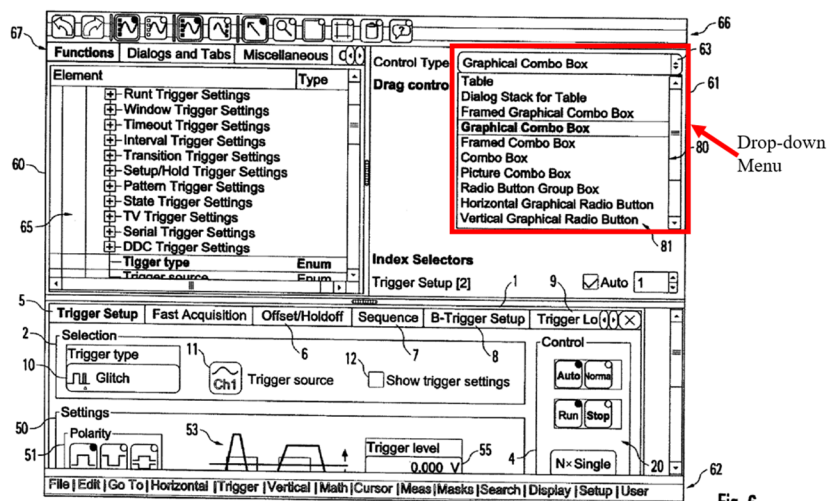


Fig. 6

274. In my opinion, at a minimum, it would have been obvious to a POSITA for a processor to render a drop-down navigation bar, such as the drop-down menus taught by Eibl, if it was determined that a drop-down navigation bar was needed in the GUI of Lider to efficiently use available screen space, which

would involve the use of a well-known user interface element (drop-down menus) to achieve a predictable result—the display of items in a drop-down menu only when the user wants to access them (*see, e.g.*, EX1006, “drop-down menu 63 is rolled down here after selection”)—wherein a POSITA would have a reasonable expectation of success of implementing the design.

275. It is my opinion that a POSITA would have been motivated to design Lider’s GUI in this way for a processor to render a drop-down menu because Eibl teaches that its user interface elements, such as drop-down menus, “guarantee[] a high information content of the display” (EX1006, [0014]) and, as explained concerning Claim 7, *supra*, a POSITA would have understood that drop-down menus are space-efficient. §IX(A)(vii).

276. Moreover, drop-down menus were well known to a POSITA. In my opinion it would have been obvious to a POSITA for a processor to render a drop-down navigation bar as the second navigation bar if it was determined that a drop-down navigation bar was needed in order to efficiently use available screen space.

d. [7.3] if the drop-down navigation bar is not needed, the processor rendering a vertical navigation bar as the second navigation bar.

277. See my analysis concerning Claim 7.3, §IX(A)(vii)(d), *supra*.

278. For all of the foregoing reasons, it is my opinion that Lider in view of Eibl and the knowledge of a POSITA discloses and renders obvious Claim 7.

ix. Claim 10

279. See Claim 10, §IX(A)(viii), *supra*.

x. Claim 11

280. See Claim 11, §IX(A)(ix), *supra*.

xi. Claim 12

281. See Claim 12, §IX(A)(x), *supra*.

xii. Claim 13

282. See Claim 13, §IX(A)(xi), *supra*.

xiii. Claim 14

a. [14.0] The intelligent television system as defined in claim 12, wherein the user interface application:

283. See Claim 12, §IX(A)(x), *supra*.

b. [14.1] determines if a drop-down navigation bar is needed;

284. See Claim 7.1, §IX(A)(vii)(b), *supra*. Because Lider's user interface application necessarily runs on the processor (*see* EX1005, 20:44-45; 20:48-49), in my opinion a POSITA would understand that Lider discloses that the user interface application performs this claimed functionality.

c. [14.2] if the drop-down navigation bar is needed, renders the drop-down navigation bar as the second navigation bar;

285. See Claim 7.2, §IX(A)(vii)(c), *supra*. Because Lider's user interface application necessarily runs on the processor (*see* EX1005, 20:44-45; 20:48-49), in

my opinion a POSITA would understand that Lider discloses that the user interface application performs this claimed functionality.

- d. **[14.3] if the drop-down navigation bar is not needed, renders a vertical navigation bar as the second navigation bar; and**

286. See Claim 7.3, §IX(A)(vii)(d), *supra*. Because Lider’s user interface application necessarily runs on the processor (*see* EX1005, 20:44-45; 20:48-49), in my opinion a POSITA would understand that Lider discloses that the user interface application performs this claimed functionality.

- e. **[14.4] wherein the drop-down navigation bar includes one or more drop down menus associated with top-level categories presented in the drop-down navigation bar, and wherein the vertical navigation bar includes categories presented vertically in the second user interface.**

287. To the extent Lider does not inherently disclose “*wherein the drop-down navigation bar includes one or more drop down menus associated with top-level categories presented in a drop-down navigation bar,*” it is my opinion that this limitation would have been obvious in view of teachings of Eibl.

288. Eibl teaches multiple different formats of “drop-down menu” that can be displayed on a GUI. Eibl teaches, for example, that “[i]f the input field 10 or 11 is selected, a list of selection options... is rolled down.” EX1006, [0028]. Eibl Figure 3 “shows a second dialog” depicting “after the selection of the input field 10,” which, Eibl teaches, “leads to the rolling down of selection list 40 with preset

options.” *Id.*, [0033]; FIG. 3.

289. Figure 6 of Eibl depicts “the dialog shown in FIG. 5 after the selection of the drop-down menu 63.” *Id.*, [0040]; FIG. 6. Eibl teaches that “drop-down menu 63 is rolled down here after selection. A list of possible display types 80... is now displayed.” *Id.*

290. Thus, Eibl teaches one or more drop down menus that are associated with top-level categories such as, for example, “input field to” and “drop-down menu 63” which, in my opinion, are examples of top-level categories that can be selected by a user, which selections cause the display of a drop-down menu.

291. Moreover, as explained with respect to Claim 14.1 and 14.2, §IX(A)(vii)(xii)(b)-(c), *supra*, in my opinion this limitation would have been obvious in view of the knowledge of a POSITA.

292. With respect to the “*wherein the vertical navigation bar includes categories presented vertically in the second user interface*” limitation, Lider teaches that “both horizontal and vertical toolbars are displayed in the view 208.” EX1005, 7:43-44. Lider Figure 2, annotated below, depicts “vertical toolbar 236” and “vertical toolbar 238.” *Id.*, 9:24; 9:30; FIG. 2.

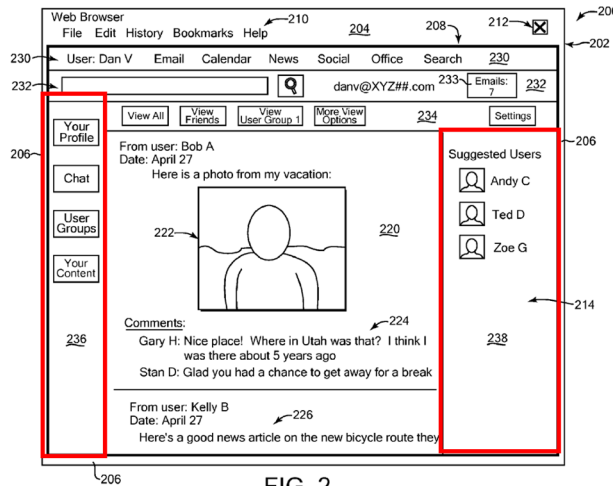


FIG. 2

293. Lider teaches, for example, that “vertical navigation toolbar 236 displays several options related to social network functions, such as displaying the user’s profile information, displaying a chat interface to talk or type text to communicate with other users, displaying a list of the user’s user groups (such as “circles” or friends lists), and displaying the user’s own posted content.” *Id.*, 8:1-6.

294. Lider further teaches, for example, that “right side toolbar 238 can display a number of suggested users which have been found to be related to the viewing user through friends or contacts. Other information can also be displayed in the right side toolbar 238 depending on the other screens or interfaces selected from toolbars 236 or 230, such as a chat window, news items, etc.” *Id.*, 9:7-12.

295. Thus, it is my opinion that Lider discloses and renders obvious “*wherein the vertical navigation bar includes categories presented vertically in the second user interface.*”

296. For all of the reasons explained above, it is my opinion that Lider

discloses and renders obvious Claim 14 in view of Eibl and the knowledge of a POSITA.

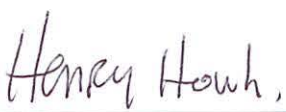
xiv. Claim 15

297. See Claim 15, §IX(A)(vii)(xiii), *supra*.

X. CONCLUSION

298. This declaration and my opinions herein are made to the best of my knowledge and understanding, and based on the material available to me, at the time of signing this declaration. I declare that all statements made herein on my own knowledge are true and that all statements made on information and belief are believed to be true, and further, that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 or Title 18 of the United States Code.

Date: March 21, 2024



Henry Houh, Ph.D.