

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Walt Disney Parks and Resorts U.S., Inc.,

Petitioner,

v.

Agile Journeys LLC,

Patent Owner.

PTAB Case No. IPR2024-00029

Patent No. 7,212,983 B2

**DECLARATION OF GREGORY J. GONSALVES, PH.D., J.D. IN
SUPPORT OF AGILE JOURNEYS' PATENT OWNER RESPONSE TO
PETITION**

TABLE OF CONTENTS

ATTACHMENTS	iii
I. INTRODUCTION	1
II. BACKGROUND AND QUALIFICATIONS	3
A. Compensation	9
III. LEVEL OF ORDINARY SKILL IN THE ART	9
IV. THE FIELD OF THE ‘983 PATENT	10
V. FUNDAMENTAL CONCEPTS REGARDING INVALIDITY	11
VI. The ‘983 PATENT	17
A. An Overview of the ‘983 Patent	17
B. The Prosecution File History of the ‘983 Patent	18
C. Exemplary Prior Art Cited In The Prosecution File History of the ‘983 Patent	22
D. Additional Prior Art Relied Upon In The Petition	39
VII. The CHALLENGED CLAIMS OF THE ‘983 PATENT	44
VIII. CLAIM CONSTRUCTION	50
A. Software That Selects	51
B. Presentation Means	63
C. Substantially Matches	67
IX. THE CLAIMS OF THE ‘983 PATENT ARE VALID	72
A. Ground 1, Claims 1, 3, 5, 7-8, 10-14, 16-17, 19-20, and 22-25 Would Not Have Been Obvious Over Sim In View Of Doi	72
B. Ground 2, Claims 4, 18, and 21 Would Not Have Been Obvious Over Sim (As Modified by Doi) In View Of Waytena	106

C.	Ground 3, Claims 1, 3-5, 8, 10, 12-14, 16-21, and 23-25 Would Not Have Been Obvious Over Waytena.	113
D.	Ground 4, Claims 1, 3-5, 8, 10, 12-14, 16-21, and 23-25 Would Not Have Been Obvious Over Waytena In View of Herz.	144
E.	Ground 5, Claim 7 Would Not Have Been Obvious Over Waytena (as modified by Herz) In View of Sim.	158
F.	Ground 6, Claims 11 and 22 Would Not Have Been Obvious Over Waytena (as modified by Herz) In View of Doi.	161
X.	TRIAL EXHIBITS	166
XI.	SUPPLEMENTATION	166

ATTACHMENTS

ATTACHMENT A: Resume of Dr. Gregory J. Gonsalves including
Case History

EXPERT DECLARATION OF GREGORY GONSALVES, Ph.D.

I. INTRODUCTION

1. I have been retained as an independent expert in this *inter partes* review (IPR) by Agile Journeys, LLC (hereafter “Agile Journeys” or “Patent Owner”) to provide opinions and conclusions regarding the unpatentability grounds asserted by Petitioner Walt Disney Parks and Resorts U.S. Inc. (hereafter “Walt Disney” or “Petitioner”).

2. In particular, the present matter involves U.S. Patent 7,212,983 (hereafter “the ‘983 patent”) to William Gibbens Redmann and Michael Anthony Eaton. It is my understanding that Walt Disney has challenged the validity of the ‘983 patent.

3. I have been asked to provide analysis and opinions as to the validity of claims 1, 3-5, 7, 8, 10-14, and 16-25 of the ‘983 patent (hereafter “the challenged claims”). I have also been asked to review the declaration of Dr. Henry Houh, who I understand has been retained in this matter by legal counsel for Walt Disney.

4. In preparing this expert report, I have considered Disney’s Petition for IPR and the exhibits with the Petition; in addition, I have studied the prosecution file history of the ‘983 patent and all the prior art references of record; I have also reviewed the Patent Owner’s preliminary response and all the exhibits submitted with the preliminary response. I have also reviewed the Detailed Comparison Table

(EX2002) (showing a detailed comparison of the newly asserted references of Sim and Doi and the prior art references already of record in the prosecution of the '983 Patent), the Canora *et al.*, Final Rejection Office Action (EX2003), and the Canora *et al.*, PTAB Appeal Decision (EX2004). I may rely on any of the materials, experiences, and knowledge identified in the aforementioned documents, in addition to any evidence and material specifically cited herein as supportive examples in this expert report, as additional support for my opinions.

5. I reserve the right to supplement or amend this expert report if additional facts and information that affect my opinions become available.

II. BACKGROUND AND QUALIFICATIONS

6. I am now and have been working as a patent attorney at Wolf, Greenfield & Sacks, P.C. since June 2022. During this time, I have participated in all aspects of patent prosecution on dozens of patent applications, have performed essentiality analyses for standards relating to video encoding and decoding, and have counseled clients on open-source software, infringement allegations, etc.

7. Prior to joining Wolf Greenfield & Sacks, P.C., I worked as a patent attorney at the Law Office of Dr. Gregory J. Gonsalves, which I founded, from July 2013 to June 2022. During that time, I represented clients as lead counsel in more than 260 *inter partes* reviews (IPRs) and covered business method (CBM) reviews before the Patent Trial and Appeal Board (PTAB), in more than two dozen appeals of IPRs and CBMs at the Court of Appeals of the Federal Circuit, and an appeal to the U.S. Supreme Court. I also prosecuted *ex parte* patent applications and reexaminations.

8. During the more than twenty years that I have been practicing before the USPTO, I have never been found to have committed inequitable conduct.

9. From June 2010 to June 2013, I worked for the USPTO, first as a patent attorney and later as a Judge at the PTAB and its predecessor (the Board of Patent Appeals and Interferences). As a Judge, I reviewed the decisions of Examiners on

ex parte applications and re-examinations and made judgments as to whether to affirm or reverse the Examiners' decisions.

10. From 1997 to 2010, I worked as a patent attorney in private practice for various firms including Pennie & Edmonds, Jones Day, Jenner & Block, and the Law Office of Dr. Gregory J. Gonsalves. During this time, I worked on all aspects of patent litigation at various district courts, including the District Court of the Eastern District of Virginia. I also prosecuted *ex parte* applications and re-examinations at the USPTO.

11. I have also performed pro bono work through the public defender's office representing criminal defendants who did not have the money to pay for an attorney.

12. From January 1983 to 1997, I worked as an Electrical Engineer and Computer Scientist at various companies including IBM, Loral, and Lockheed Martin. As an engineer, I led teams in the design and development of software for various applications, including the automated design of integrated circuits, timing analysis, logic synthesis, verification, hierarchical design tools for integrated circuit design, air traffic control, and satellite scheduling, etc. I held a Top-Secret security clearance during the time that I worked on projects for the United States government.

13. I have written well over one hundred thousand lines of code in various programming languages including IBM 360/370 assembly language, PL1, PL/AS, Fortran, Cobol, C, C++, Java, and Basic.

14. I designed and developed software to automate the design of integrated circuits. I designed and developed a timing analysis system to ensure that the signals propagated from a circuit input or an output of a latch to a circuit output or an input of a latch. The system supported different technologies, including complementary metal oxide semiconductor (CMOS) technologies and bipolar technologies. The system inputs a library of circuits available for a particular technology, a logic diagram, etc. and computed the time required for signals to propagate along paths through the logic diagram by referring to the data provided in the library for the circuits.

15. I designed and developed software to create detailed hierarchical logic diagrams and technology-dependent logic diagrams from more abstract descriptions prepared using hardware description languages such as Very High-Speed Integrated Circuit Hardware Description Language (VHDL).

16. I designed and developed a probabilistic hill climbing algorithm to optimize a logic diagram. The algorithm achieved better results because it had the ability to transition from locally optimal solutions to better solutions. I presented my research at the International Conference on Computer Design in 1996 (ICCD '86)

and wrote a paper on the research that was published in the conference proceedings. Greg Gonsalves, “Logic synthesis using simulated annealing,” Proceedings of the 1986 IEEE International Conference on Computer Design: VLSI in computers, Port Chester, New York, October 1986.

17. I continued my research and designed another algorithm that selected circuits from a technology library to optimize the synthesis of a technology-dependent logic diagram. This work was published as Gonsalves, G. J., “Technology Mapping Using Simulated Annealing,” IBM Technical Disclosure Bulletin, Aug. 1990, vol. 33, No. 3A, p. 308.

18. I designed and developed combinatorial optimization algorithms to schedule the image capture of different locations in response to input provided by the user. I designed and developed interface software between IBM’s Multiple Virtual System (MVS) and Advanced Interactive eXecutive operating systems for an application that located downed aircraft.

19. I have continued to use my engineering experience and education in my work as a patent attorney. I have worked on patents involving storing, indexing, and retrieving image data from databases, code modulation, sound editing, wireless mesh networks, routing algorithms, central control of remote actuators and sensors via wide area and wireless networks, semi-conductor circuit design for blue-light light

emitting diodes (LEDs), computer security, modular lighting structures, video encoding and decoding, etc.

20. I graduated with honors with a J.D. from Georgetown University Law Center in 1997. I hold three engineering degrees all with highest honors: a Ph.D. in Computer Engineering, a M.S. in Electrical Engineering from Syracuse University, and a B.S. in Electrical Engineering from Northeastern University.

21. Based on my experience as a patent attorney in private practice and as an Administrative Patent Judge at the USPTO, I have significant familiarity with all aspects related to the examination of patent applications. This includes knowledge about the Manual of Patent Examining Procedure (“MPEP”)¹, which the Patent Office publishes as a binding guide to examiners, as well as the rules and statutes relating to examination of applications set forth in Title 37 of the Code of Federal Regulations (“C.F.R.”) and Title 35 of the United States Code (“U.S.C.”), respectively.

22. I have significant knowledge of the duty of disclosure and duty to make truthful representations concerning what patent practitioners must do to comply with the Patent Office requirements of candor, good-faith, truthful representations, and disclosure in dealing with Examiners. This experience comes from more than

¹ <http://www.uspto.gov/web/offices/pac/mpep/> (Ninth Edition, Revision 08.2017).

twenty-five years of experience working at or with the United States Patent and Trademark Office.

23. Also, I have served as a testifying expert witness on the duty of disclosure and duty to make truthful representations concerning what patent practitioners must do to comply with the Patent Office requirements of candor, good-faith, truthful representations, and disclosure in dealing with Examiners on numerous occasions as evidenced by Attachment B for this Report.

24. I have considerable experience in reviewing patent prosecution histories, including specifications and interpreting claim language, as a result of my service as an Administrative Patent Judge at the Patent Trial and Appeal Board and as an attorney in private practice.

25. Additional details about my employment history and education are further included in my resume attached hereto as Attachment A. I note that in the past six years, I offered deposition and/or trial testimony in four cases: *Persawvere, Inc. v. Milwaukee Electric Tool, Corporation*, Case No. 1:21-cv-00400 (D. Del.); *C&M Oilfield Rentals, LLC Apollo Lighting Sols. and Cleantek Industries, Inc.*, Case No. 6:21-CV-00544 (W.D. Tex.); *Applied Capital, Inc. v. The ADT Corporation and ADT LLC*, Case No. 1:16-cv-815-JB-SCY (D.N.M. 2020); and *Video Share, Inc. v. Google, LLC and Youtube, LLC*, Case No. 1:16-cv-815-JB-SCY (W.D. Tex.).

A. Compensation

26. I am a salaried employee of Wolf Greenfield & Sachs, P.C. They bill my time for expert witness work at \$755/hour. I am also being reimbursed for reasonable and customary expenses associated therewith. No part of my compensation is dependent upon the results of this proceeding or the substance of my testimony.

III. LEVEL OF ORDINARY SKILL IN THE ART

27. The Federal Circuit has noted a list of six factors that may be considered when determining the level of ordinary skill in the art. The factors are listed below. I have used the factors in combination with the available information in determining the level of ordinary skill in the art.

- i. The education level of the inventor.
- ii. The type of problems encountered in the art.
- iii. Prior art solutions to those problems
- iv. The rapidity with which innovations are made
- v. The sophistication of the technology.
- vi. The education level of active workers in the field.

Daiichi Sankyo Co. v. Apotex, Inc., 501 F.3d 1254, 1256 (Fed. Cir. 2007) (citing *Orthopedic Equip. Co. v. All Orthopedic Appliances, Inc.*, 707 F.2d 1376, 1381–82 (Fed. Cir. 1983)).

28. I understand that the parties have agreed to the definition of a person having ordinary skill in the art (“PHOSITA”) for the subject matter claimed in the ‘983 patent as a person with (i) at least an Associate’s degree in engineering technology or a related field, or (ii) a comparable amount of post-high school education in engineering technology or a related field and at least 2 years of practical experience in analyzing, designing, and developing software for scheduling applications. In the alternative, a person of ordinary skill in the art can be someone with (iii) at least six years of practical experience with analyzing, designing and developing software for scheduling applications.

29. As indicated by the experience and education described above and my resume, I meet or exceed the level of a PHOSITA.

IV. THE FIELD OF THE ‘983 PATENT

30. The ‘983 patent describes the field of the invention as follows:

The present invention relates generally to a system for creating a personalized itinerary, and in particular, a system to create a personalized itinerary for visitors to a facility, such as a zoo, theme park, historic area, or shopping district. More particular still, the

invention relates to a system for creating a personalized itinerary for visitors to a facility that provides managed access to attractions at the facility.

‘983 patent, 1:7-14.

V. FUNDAMENTAL CONCEPTS REGARDING INVALIDITY

31. I understand that the Petitioner must demonstrate by a preponderance of the evidence that the asserted claims are invalid. I understand that the preponderance of the evidence standard is one characterized as being more likely than not. As each claim is considered a separate invention, I understand that the Petitioner’s burden is applicable individually to each claim.

32. I further understand that determining whether a patent claim is invalid requires two steps: first, determination of the meaning and scope of the claim (or individual terms of the claim), and second, comparing the properly construed claim to the prior art. A party may assert invalidity on the basis of anticipation or obviousness.

33. I understand that my analysis requires an understanding of the scope of the patent claims and that the disclosures of the patent and the prior art are judged from the perspective of a person of ordinary skill in the art at the time of the purported invention.

34. I understand that during an *inter partes* review, claims of a patent are to be given their plain and ordinary meaning in light of the specification as would

be understood by a person of ordinary skill in the relevant art. Unless otherwise noted, I have given the claim terms their plain and ordinary meaning in light of the specification as understood by a person of ordinary skill in the art at the time of purported invention.

35. I understand that a claim is invalid if it is anticipated or obvious. I understand that anticipation of a claim requires that every element of a claim is expressly or inherently disclosed in a single prior art reference. I understand that an anticipating reference need not use the exact terms of the claims, but must describe the patented subject matter with sufficient clarity and detail to establish that the claimed subject matter existed in the prior art and that such existence would be recognized by persons of ordinary skill in the field of the purported invention.

36. I understand that a patent claim is invalid if the claimed invention would have been obvious to a person of ordinary skill in the art at the time of the purported invention. This means that even if all of the requirements of the claim cannot be found in a single prior art reference that would anticipate the claim, the claim can still be invalid.

37. I understand that an obviousness analysis involves comparing a claim to the prior art to determine whether the claimed invention would have been obvious to a person of ordinary skill in the art at the time of the purported invention in view of the prior art and in light of the general knowledge in the art as a whole. I also

understand that obviousness is ultimately a legal conclusion based on underlying facts of four general types, all of which must be considered: (1) the scope and content of the prior art; (2) the level of ordinary skill in the art; (3) the differences between the claimed invention and the prior art; and (4) any objective indicia of non-obviousness.

38. I also understand that obviousness may be established by combining or modifying the teachings of the prior art. Specific teachings, suggestions, or motivations to combine any first prior art reference with a second prior art reference can be explicit or implicit, but must have existed before the date of purported invention. I understand that prior art references themselves may be one source of a specific teaching or suggestion to combine features of the prior art, but that such suggestions or motivations to combine art may come from the knowledge of a person of ordinary skill in the art. Specifically, a rationale to combine the teachings of references may include logic or common sense available to a person of ordinary skill in the art.

39. I understand that a reference may be relied upon for all that it teaches, including uses beyond its primary purpose. I understand that though a reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, the mere disclosure of alternative designs does not teach away.

40. I further understand that whether there is a reasonable expectation of success from combining references in a particular way is also relevant to the analysis. I understand there may be a number of rationales that may support a conclusion of obviousness, including:

- Combining prior art elements according to known methods to yield predictable results;
- Substitution of one known element for another to obtain predictable results;
- Use of a known technique to improve similar devices (methods, or products) in the same way;
- Applying a known technique to a known device (method, or product) ready for improvement to yield predictable results;
- “Obvious to try”—choosing from a finite number of identified, predictable solutions, with a reasonable expectation of success;
- Known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces if the variations are predictable to one of ordinary skill in the art; and

- 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 teachings to arrive at the claimed invention.

41. I understand that it is not proper to use hindsight to combine references or elements of references to reconstruct the invention using the claims as a guide. My analysis of the prior art is made from the perspective of a person of ordinary skill in the art at the time of the purported invention.

42. I understand that so-called objective indicia of non-obviousness may be relevant to the determination of whether a claim is obvious should such evidence be alleged. Such objective indicia can include evidence of commercial success caused by an invention, evidence of a long-felt need that was solved by an invention, evidence that others copied an invention, skepticism or disbelief by those skilled in the art, failure of others, praise of the invention, evidence that an invention achieved a surprising result, or near simultaneous invention by multiple parties. I understand that some of such evidence, such as commercial success, must have a nexus, or causal relationship to the elements of a claim, in order to be relevant to the obviousness or non-obviousness of the claim. I am unaware of any such objective considerations of non-obviousness having a nexus to the claims at issue in this proceeding.

43. I understand that for a reference to be used to show that a claim is obvious, the reference must be analogous art to the claimed invention. I understand that a reference is analogous to the claimed invention if the reference is from the same field of endeavor as the claimed invention, even if it addresses a different problem, or if the reference is reasonably pertinent to the problem faced by the inventor, even if it is not in the same field of endeavor as the claimed invention. I understand that a reference is reasonably pertinent based on the problem faced by the inventor as reflected in the specification, either explicitly or implicitly.

44. I understand that the written description requirement for patent claims is governed by 35 U.S.C. § 112, ¶ 1 (pre-AIA), which requires “[t]he specification shall contain a written description of the invention, and the manner and process of making and using it....” “Claims define and circumscribe, the written description discloses and teaches.”² Over 75 years ago, the Supreme Court explained that one of the purposes of the written description requirement was “to inform the public during the life of the patent of the limits of the monopoly asserted, so that it may be known which features may be safely used or manufactured without a license and which may not.”³ The Court has also stated that a patent’s written description functions to show

² *Ariad Pharm., Inc. v. Eli Lilly and Co.*, 598 F.3d 1336, 346-47 (Fed. Cir. 2010) (vacating jury verdict and finding lack of written description support as a matter of law).

³ *Schriber-Schroth Co. v. Cleveland Trust Co.*, 305 U.S. 47, 57 (1938).

“what part of the field of invention is unoccupied.”⁴ The Federal Circuit has endorsed these public-notice functions, explaining that the written description requirement goes beyond the function of the patent claims, which simply circumscribe the boundaries of the enforceable rights.

VI. THE ‘983 PATENT

A. An Overview of the ‘983 Patent

45. The ‘983 patent discloses and claims a computer having software that provides an itinerary comprising a software-selected second set (*i.e.*, subset) of a first set of attractions for which data regarding the first set of attractions substantially matches information about a party. Figure 12, reproduced below, illustrates the relationship between data regarding the attractions and information about the party.

⁴ *Gill v. Wells*, 89 U.S. 1, 25 (1874).

1200
↓

1240

Profile Elements:		Acceptance Factors								
		1220 Slow Group	1230 Barrier	1241 violence	1242 loud	1243 get wet	1244 Kid Entertainment	1245 Height Limit	1246 W/C transfer req'd	1247 Bores Kids
1211	Large Group (>5)	x-1220'								
1212	Have Small Children	x-1220"								
1213	Have Infant	x								
1214	Baby Swapping									
1215	Wheelchair	x	x							
1216	Wheelchair transfer									
1217	Phobia: Violence									
	Phobia: Loud									
	Phobia: Water									

Handwritten notes in table cells:
- Cell (1214, 1230): 1230'
- Cell (1215, 1244): +1244'
- Cell (1215, 1245): 0-1245'
- Cell (1215, 1246): 0-1246"
- Cell (1215, 1247): 0-1246"
- Cell (1216, 1242): 1242'
- Cell (1217, 1242): -

Figure 12

B. The Prosecution File History of the '983 Patent

46. A patent application having number 09/858,376 was filed on May 15, 2001 *pro se* by one of the inventors, William Gibbens Redmann.

47. Before any office action was issued, Mr. Redmann filed a Preliminary Amendment on December 1, 2004, correcting typographical errors and adding additional claims. A second Preliminary Amendment was filed on October 4, 2005, in response to the Notice of Non-Compliance issued on September 9, 2005.

48. The Examiner issued the first office action on October 27, 2005, rejected claims 4-169 under 35 U.S.C 112, stating that “taken as a whole the claims recite an undue multiplicity of claims”. EX1002, p.194. Applicant filed a Request for Reconsiderations After Non-Final Rejection on January 27, 2006, selecting twenty-five claims: 4, 5, 7, 9, 11, 13, 25, 28, 29, 45, 47, 48, 54, 58, 60, 61, 64, 67, 72, 75, 76, 77, 79, 83, and 87 (claims 4, 11, 87 eventually became the independent claims 3, 2, 1 respectively). EX1002, 133.

49. The examiner issued a Final Rejection (2nd office action) on April 28, 2006. EX1002, 64-73. In the office action, claims 29, 48, 64, 72, 75, 76 and 77 were rejected under 35 U.S.C. 112 as indefinite. *Id.* Claims 4, 5, 7, 9, 13, 25, 28, 29, 45, 47, 48, 54, 60, 61, 64, 67, 72, 75, 77, 79, 87 were rejected under 35 U.S.C. 102(b) as being anticipated by Waytena (U.S. Patent 5,978,770, EX1007). *Id.* Claim 58 was rejected under 35 U.S.C. 103(a) as being unpatentable over Waytena in view of Laval (U.S. Patent 6,173,209, EX2005) or Lancos (U.S. Patent 6,873,260). *Id.* Claim 76 was rejected under 35 U.S.C. 103(a) as being unpatentable over Waytena in view of Murashita (2002/0062236). *Id.* Claim 11 would be allowable if rewritten in independent form. *Id.*

The Examiner commented that:

Waytena et al (‘770) further discloses the aversion attribute (age), see column 7, lines 9-31, but does not specifically disclose a nullifying preference of said party, wherein said data distinguishes a portion of said first set of attractions

as being less desirable with respect to said aversion attribute unless said corresponding nullifying preference is present and wherein in step d) at least one attraction from said portion of said first set of attractions is selected for said second set of attractions.

EX1002, 73.

50. Applicant filed request for continued examination on July 28, 2006. Applicant amended claim 11 into independent form and provided arguments against the Examiner's rejection regarding other claims. EX1002, 63.

51. The Examiner issued another non-final rejection (the third office action) on November 1, 2006. The Examiner commented that:

Applicant's reply of 7-28-06 has been considered, but is not convincing. Applicant argues that Waytena et al ('770) does not have "software operable to select" but has only a manual step of selection. The examiner disagrees, Waytena et al ('770) at column 14, lines 13-35 discloses that if desired, the patron may be presented with a list of attractions that match preferences, which is seen to meet the language of applicant's selecting step.

EX1002, 20.

52. On November 9, 2006, Applicant had a telephone interview with the Examiner during which authorization was given for an examiner's amendment. The application has been amended as follows in the claims: claim 4, line 13 replace "operable to select" with "that selects"; claim 87, line 11 replace "operable to select"

with “that selects”. The application was allowed after the amendment. The Examiner provided the following reasons for allowance:

As per Claim 4.

Waytena et al (‘770) does not specifically disclose computer having access to said data and said information, said computer having software that selects said second set of attractions from said first set of attractions, said second set of attractions consisting of at least some of said first set of attractions for which said data substantially matches with said information whereby said itinerary is customized for said party.

As per Claim 11.

Waytena et al (‘770) further discloses the aversion attribute (age), see column 7, lines 9-31, but does not specifically disclose a nullifying preference of said party, wherein said data distinguishes a portion of said first set of attractions as being less desirable with respect to said aversion attribute unless said corresponding nullifying preference is present and wherein in step d) at least one attraction from said portion of said first set of attractions is selected for said second set of attractions.

As per Claim 87.

Waytena et al (‘770) does not specifically disclose computer having access to said data and said information, said computer having software that selects said second set of attractions from said first set of attractions, said second set of attractions consisting of at least some of said first set of attractions for which said data substantially matches with said information whereby said itinerary is customized for said party.

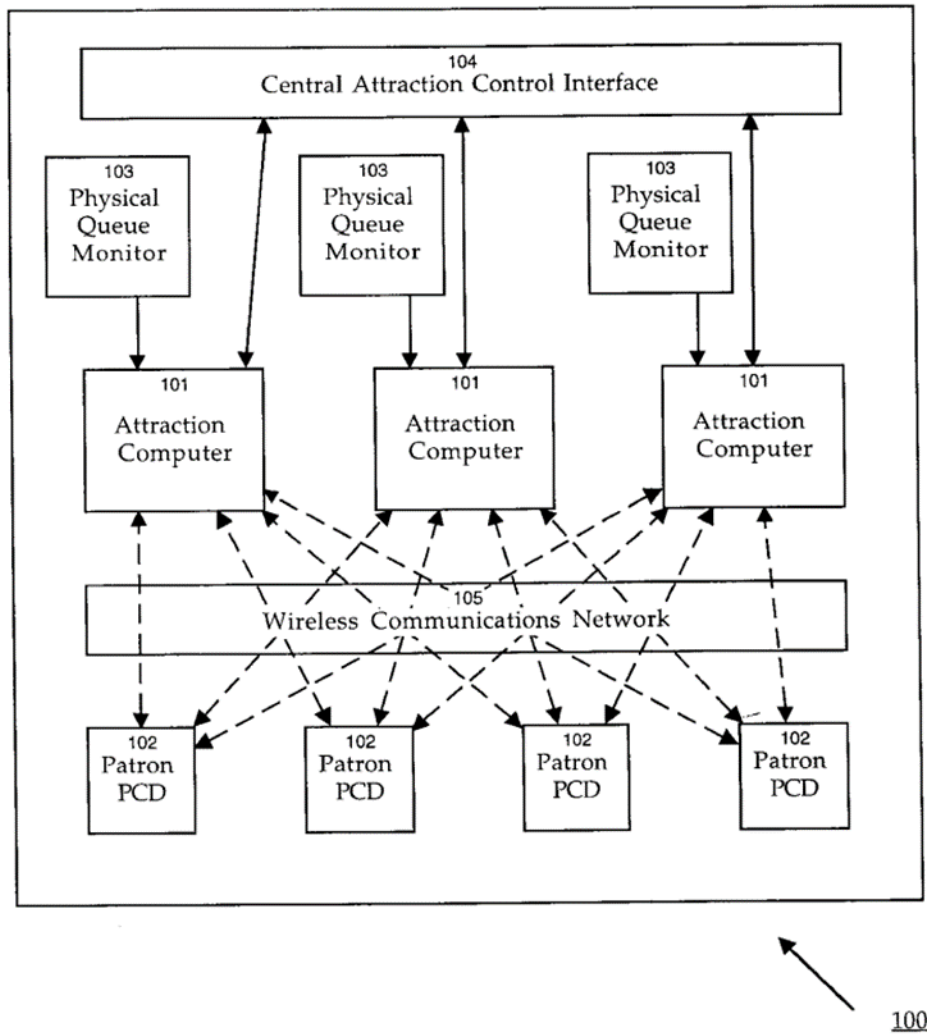
EX1002, 9-10.

C. Exemplary Prior Art Cited In The Prosecution File History of the ‘983 Patent

53. Below is an overview of four prior art references that were cited during the prosecution of the patent that led to the ‘983 Patent.

a. Waytena (U.S. Patent No. 5,978,770)

54. Waytena discloses a system that manages patron-requested reservations for various attractions through personal communication devices (PCDs). Reservation requests from PCDs are sent to the computer associated with the chosen attraction. The computer determines a proposed reservation time based on attraction details, patron information, existing reservations in a virtual queue, and the physical queue’s current state. The proposed time is sent to the PCD for patron confirmation or rejection. Confirmed reservations are added to the virtual queue, and patrons are notified when their reservation time approaches. The system is illustrated in FIG. 1, which is reproduced below.



The system allows attraction preferences to be entered, as seen in FIG. 5A, reproduced below, for the purpose of filtering attractions to make selections of reservation requests more convenient for the patron.

WELCOME TO _____

PLEASE ENTER THE FOLLOWING INFORMATION FOR EACH MEMBER OF YOUR GROUP.

NAME SEX

AGE YEARS

HEIGHT FEET INCHES

WEIGHT LBS.

HEALTH CONDITIONS: (CHECK ALL THAT APPLY)

☐ BACK CONDITION ☐ VERTIGO

☐ HEART CONDITION ☐ WHEELCHAIR

☐ PREGNANT ☐ HEARING DISABILITY

☐ NURSING ☐ OVERWEIGHT/LARGE

RIDE PREFERENCES: (CHECK ALL THAT APPLY)

☐ THRILL RIDES ☐ FRONT SEAT

☐ EDUCATIONAL ☐ REAR SEAT

☐ SHOWS ☐ AISLE SEAT

☐ KIDDIE RIDES

CANCEL

NEXT

DONE

FIG. 5A

b. Mahoney (U.S. Patent No. 5,502,806)

55. Mahoney discloses a waiting line management system designed for settings with high demand, exceeding capacity for attractions. Patrons are issued cards or electronic devices, granting access to computer terminals. Using these terminals, patrons can select attractions, choose time slots, and perform various functions. The card allows entry during the selected time slot through a turnstile with a card reader. The system calculates capacity, demand, and time slot selections, efficiently merging card and non-card patrons at access gates for the attraction. This

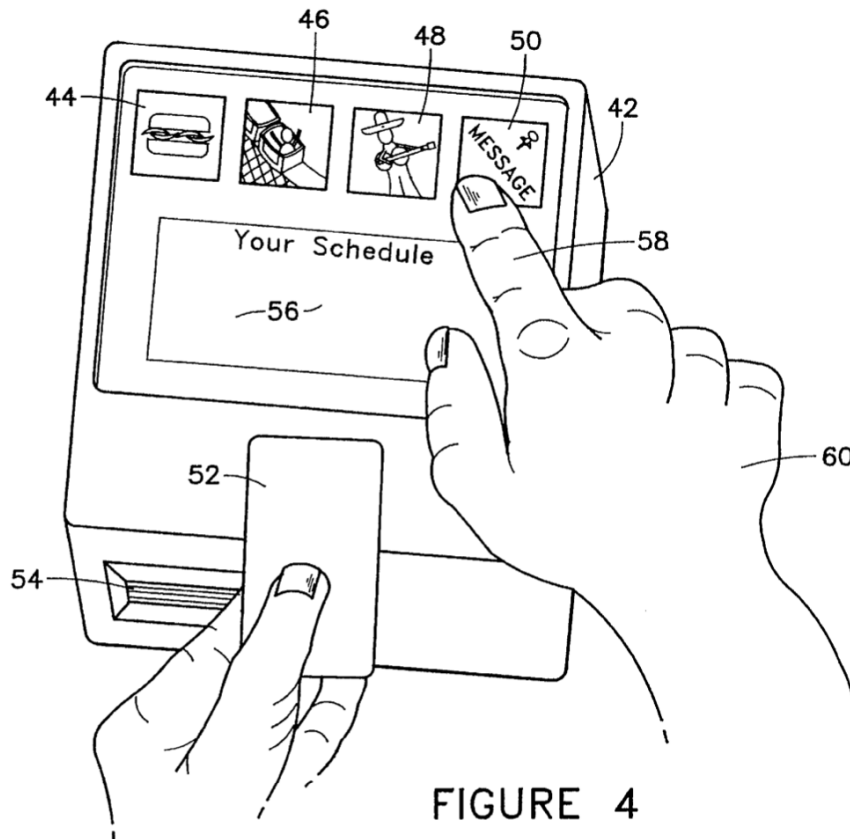
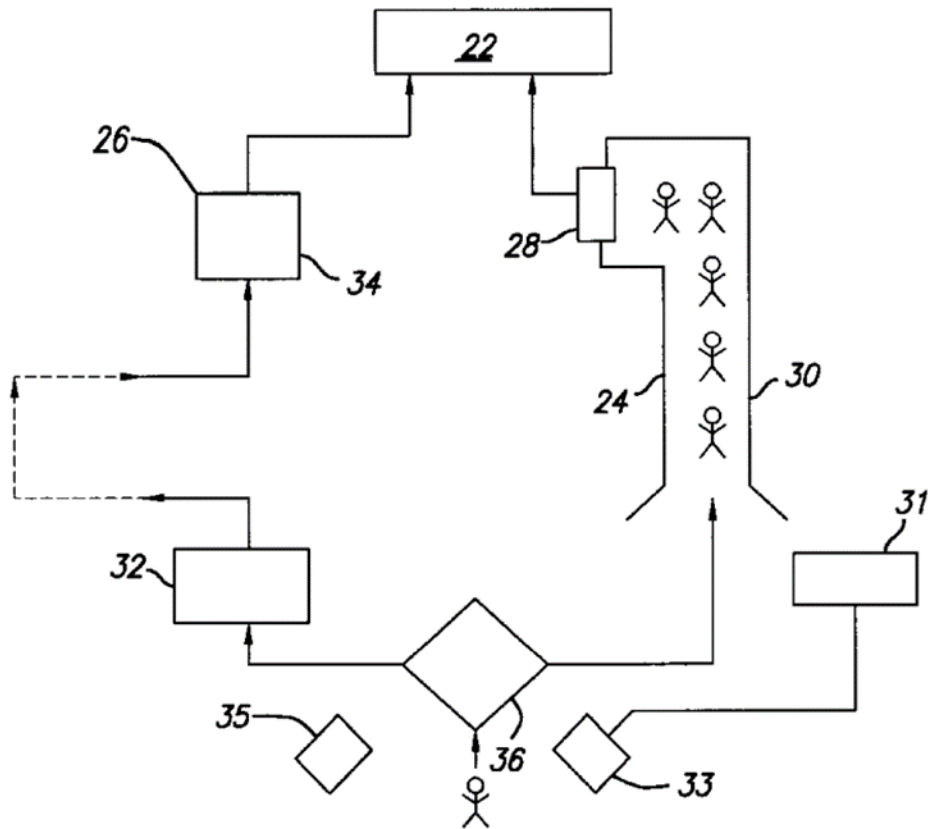


FIGURE 4

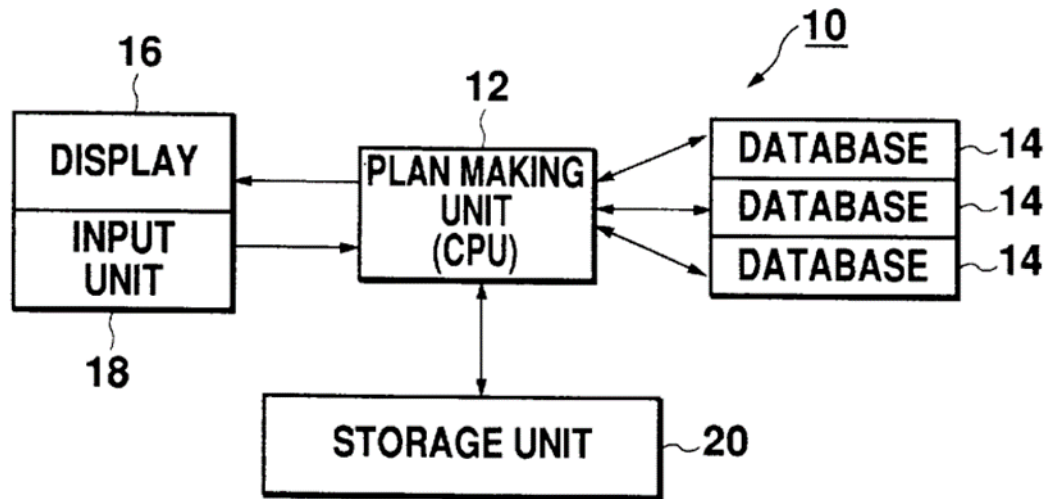
c. Laval (U.S. Patent No. 6,173,209)

56. Laval discloses a method and system for managing admission to an attraction. It includes two queues: a standard waiting line and a special queue allowing patrons to access the attraction without waiting. The system validates patron entitlement to a future access time in the special queue, distributes media containing the assigned time, and validates access at the designated time. The method allows patrons to bypass the standard line by verifying entitlement, obtaining a pass for future access, and returning at the scheduled time, even allowing them to leave the area between pass issuance and the scheduled time. Laval's system is illustrated by FIG. 1, which is reproduced below.



d. Kanemitsu (U.S. Patent No. 5,940,803)

57. Kanemitsu discloses a system that facilitates itinerary generation by allowing patrons to enter desired facility information and visiting purposes. Using a database, the system retrieves a recommended route to reach the facilities and suggested visiting times based on each purpose. A plan preparing unit then generates a time schedule and an itinerary, ensuring the patron arrives at desired facilities at appropriate times. The itinerary is displayed for the user's convenience. Kanemitsu's system is illustrated by FIG. 1, which is reproduced below.



The system allows selection of an attraction categories, as seen from the menu in FIG. 3A, reproduced below, for the purpose of filtering attractions to make selections of destinations more convenient for the patron.

FACILITY NAMES		BACK
TOUCH A DESIRED ☐ .		
AMUSEMENT PARK	SKI SLOPE	PARK
ZOO/BOTANICAL GARDEN	HOT SPRING	CAMPSITE
SIGHTS/CASTLES	ART MUSEUM/MUSEUM	SHRINE/TEMPLE
PAGE 1/3		NEXT

Fig. 3A

58. I have thoroughly reviewed the Detailed Comparison Table (EX2002), the prior art references of record in the original prosecution of the '983 Patent, and Petitioner's newly asserted prior art references of Sim and Doi. I fully agree with the careful comparison between the teachings of Sim and Doi and the teachings in the

prior art of record, as presented in this table (EX2002), the analysis that is presented in this table, and I further agree with its conclusions that Sim and Doi are cumulative over the prior art of record in the prosecution of the '983 Patent. I further supplement this with my analysis, as set forth below.

59. I have compared the teachings in Sim with the prior art references of record in the file history of the '983 Patent.

- i. With respect to an Access Token to gain admission to an attraction based on a reservation, Sim provides a prompter, a communication device able to interact with a remote computer and display a sequence of reservations. These are cumulative to: Waytena providing a personal communication device (PCD), likewise able to interact with a one or more remote computers and display a sequence of reservations; and Mahoney providing a machine-readable identification card or device, able to activate a terminal having communication with one or more remote computers, the terminal able to display a sequence of reservations.
- ii. With respect to Party Information representing attributes, privileges, preferences of a party, Sim collects and uses at least the height and health characteristics of party members, which are stored in controlling computer 3. These are cumulative to: Waytena collecting and using

height, age, weight, gender, health, and attraction preferences with screen 519; Kanemitsu collecting and using attraction preferences, desired purpose, and a party's externally supplied reservations, *e.g.*, at steps S300 and S301; and Laval collecting and using a privilege of a party with the first validator 32.

iii. With respect to Attraction Data that can distinguish between some attractions based on party information, assist in schedule and route planning, and/or facilitate management of the attraction, Sim provides age, size, and health restrictions. These are cumulative to: Waytena providing attraction information storage 213 containing age, height, and weight restrictions, location, operating conditions, and flags 264 having other information useful in scheduling (*e.g.*, categories), and physical queue monitor 103 to provide queue size and current actual throughput; and Kanemitsu providing database 14 with attractions categorized, their location, usable purpose, and recommended times by purpose.

iv. With respect to Filtering Attractions based on a match between Attraction Data and Party Information for presentation to a party as recommendations, Sim does not recite filtering attractions offered to a party at the user selection display of FIG. 6, nor when a prompter for a

single-ride is acquired from a corresponding dispenser⁵. Nevertheless, the notion of Filtering Attractions are cumulative to: Waytena filtering attractions offered to a party based on proximity to the party's location or matching a preference (*e.g.*, "kiddie rides") before presentation in attraction list 451; Kanemitsu filtering attractions offered to a party by the party's preferred categories of attraction (the screen in FIG. 4B), including preferred categories for facilities designated as apropos to a particular purpose, such as a "Date Spot" (the screen in FIG. 4A); and Mahoney filtering attractions offered to a party based on their preferred categories obtained from menu option icons 44, 46, 48 which result in a menu of corresponding attractions being listed on display screen 56.

- v. With respect to Picking Attractions by a party from the recommendations presented to a party for reservations, Sim requires a party to pick attractions, as "queues to be joined" (Sim, 15:24) from an unfiltered list presented at an information kiosk 9 on a user selection display (FIG. 6) and further solicits the party's preferred sequence and

⁵ Sim's "system will only allow access to correctly registered users if all users have prompters... If groups share a prompter it either allows access to the whole party and attendants ensure the ride restriction rules are met, or only the number of places corresponding to eligible members of the party are allowed access." (Sim, 34:5-11)

preferred times⁶ for those attractions. These are cumulative to: Waytena requiring a party to pick attractions to make reservations on their PCD (screens in FIGS. 5B-5E), including specification of a preferred time (which defaults to “now”) for each, and subsequent confirmation of reservation times proposed by the request processor 209; Kanemitsu requiring a party to pick attractions from the list of recommended attractions (steps S200, S300), and specify a purpose for their visit (step S301, unless already known at step S201 from the preferences used for the recommendations), such that a suitable range of recommended times can be inferred from entries in database 14 for each selected attraction; Mahoney requiring a party to insert their ID card 52 into a card satellite terminal 22 (a computer access terminal 42 of FIG. 4), pick attractions from those recommended, be advised of available time slots, and further pick from those; and Laval requiring a party to present a park admission ticket at a first verifier 32 corresponding to an attraction 22 to receive a reservation for the time currently advertised on second queue time display 35.

⁶ Specification of preferred times necessarily implies a preferred sequence, though a preferred sequence does not necessarily imply preferred times.

vi. With respect to an Itinerary constructed in response to the attractions picked and any sequence or times preferred, Sim provides a queue manager running on central computer 3 that “includes a means of calculating the actual time and sequence of attendance at queue entrances [*i.e.*, attractions] offered to the user” which “can be in response to user preferences [*i.e.*, times and sequence], on the overall demand in the system and any priority attached to the particular user⁷ and would result in effectively, a recommended route” (Sim, 34:23-28) as it “optimizes the position of a person or group of people in each of the queue sequences to allow the person or group of people to join each queue and attend each event being queued for.” (Sim, 8:28-32). These are cumulative to: Waytena providing an itinerary in local reservation storage 206 and presented on the PCD screen as current reservations list 545, which includes consideration for conflicts among the reservation times and accommodation of travel time between attractions; Kanemitsu providing an itinerary as the travel plan shown in steps S107/S314, for which the plan making unit 12 calculates an optimum traveling route on the basis of the entered place of departure,

⁷ Sim presents a scenario in which late-arriving parties accrue a priority that grants them shorter waits in the virtual queue, so that they may obtain as many rides as parties having spent the whole day at the park. See Sim 24:7-20

visiting facilities, and place of return” and on the further basis of “map information and road traffic history information in the database 14... [and] the recommended visiting time” at steps S104/S305/S307; Libby providing with route planning engine 102/302 a target sequence list 108 which is presented to a route utilization system 72; and both Mahoney and Laval, providing an itinerary for which the times and sequence were determined as the party was picking the attraction.

60. I have compared the teachings in Doi with the prior art references of record in the file history of the ‘983 Patent.

- i. With respect to an Access Token to gain admission to an attraction based on a reservation, Doi provides a customer navigation terminal able to interact with a remote computer and is able to make a reservation. These are cumulative to: Waytena providing a personal communication device (PCD), likewise able to interact with a one or more remote computers and display a sequence of reservations; and Mahoney providing a machine-readable identification card or device, able to activate a terminal having communication with one or more remote computers, the terminal able to display a sequence of reservations.

- ii. With respect to Party Information representing attributes, privileges, preferences of a party, Doi collects and uses height and age with nickname memory 11. These are cumulative to: Waytena collecting and using height, age, weight, gender, health, and attraction preferences with screen 519; Kanemitsu collecting and using attraction preferences, desired purpose, and a party's externally supplied reservations, *e.g.*, at steps S300 and S301; and Laval collecting and using a privilege of a party with the first validator 32.
- iii. With respect to Attraction Data that can distinguish between some attractions based on party information, assist in schedule and route planning, and/or facilitate management of the attraction, Doi provides age and height restrictions, historic utilization by age, and current wait times. These are cumulative to: Waytena providing attraction information storage 213 containing age, height, and weight restrictions, location, operating conditions, and flags 264 having other information useful in scheduling (*e.g.*, categories), and physical queue monitor 103 to provide queue size and current actual throughput; and Kanemitsu providing database 14 with attractions categorized, their location, usable purpose, and recommended times by purpose.

iv. With respect to Filtering Attractions based on a match between Attraction Data and Party Information for presentation to a party as recommendations, Doi filters attractions offered to a party based on a party member's age matching attraction restrictions and historic utilization by similarly aged customers.⁸ These are cumulative to: Waytena filtering attractions offered to a party based on proximity to the party's location or matching a preference (*e.g.*, "kiddie rides") before presentation in attraction list 451; Kanemitsu filtering attractions offered to a party by the party's preferred categories of attraction (the screen in FIG. 4B), including preferred categories for facilities designated as apropos to a particular purpose, such as a "Date Spot" (the screen in FIG. 4A); and Mahoney filtering attractions offered to a party based on their preferred categories obtained from menu option icons 44, 46, 48 which result in a menu of corresponding attractions being listed on display screen 56.

⁸ Doi first selects an attraction (based on an overcrowding or undercrowding situation) without reference to any party information. Parties are subsequently filtered to determine which parties are suited by their age to receive a recommendation to that attraction. This does not meet the recited limitation of "selecting said second set of attractions...for which said data substantially matches with said information." Having received the recommendation, a party is left to accept (select) the recommendation or decline.

v. With respect to Picking Attractions by a party from the recommendations presented to a party for reservations, Doi requires a party to pick an attraction, or decline, in response to a real-time recommendation, *e.g.*, for an attraction where the queue is short or a show that is starting soon. These are cumulative to: Waytena requiring a party to pick attractions to make reservations on their PCD (screens in FIGS. 5B-5E), including specification of a preferred time (which defaults to “now”) for each, and subsequent confirmation of reservation times proposed by the request processor 209; Kanemitsu requiring a party to pick attractions from the list of recommended attractions (steps S200, S300), and specify a purpose for their visit (step S301, unless already known at step S201 from the preferences used for the recommendations), such that a suitable range of recommended times can be inferred from entries in database 14 for each selected attraction; Mahoney requiring a party to insert their ID card 52 into a card satellite terminal 22 (a computer access terminal 42 of FIG. 4), pick attractions from those recommended, be advised of available time slots, and further pick from those; and Laval requiring a party to present a park admission ticket at a first verifier 32 corresponding to an attraction 22

to receive a reservation for the time currently advertised on second queue time display 35.

- vi. With respect to an Itinerary constructed in response to the attractions picked and any sequence or times preferred, Doi does not provide an itinerary corresponding to multiple reservations but has a navigation planner 42 able to generate and present customer navigation information to a positional information (*i.e.*, attraction location) based on historic crowd conditions (Doi, 9:33-42). These are cumulative to: Waytena providing an itinerary in local reservation storage 206 and presented on the PCD screen as current reservations list 545, which includes consideration for conflicts among the reservation times and accommodation of travel time between attractions; Kanemitsu providing an itinerary as the travel plan shown in steps S107/S314, for which the plan making unit 12 calculates an optimum traveling route on the basis of the entered place of departure, visiting facilities, and place of return” and on the further basis of “map information and road traffic history information in the database 14... [and] the recommended visiting time” at steps S104/S305/S307; Libby providing with route planning engine 102/302 a target sequence list 108 which is presented to a route utilization system 72; and both Mahoney and Laval,

providing an itinerary for which the times and sequence were determined as the party was picking the attraction.

D. Additional Prior Art Relied Upon In The Petition

61. Below is an overview of two additional prior art references that are relied upon in the Petition.

a. Sim (Exhibit 1005)

62. Sim requires user selection of the attractions:

“each docking station includes queue display means for displaying a selection of queues which the person or group of people may wish to join, input means to allow the person or group of people to select which queue they wish to join.” (Sim, 7:15-20).

Moreover, where Sim states:

“The queue manager includes means of calculating the actual time and sequence of attendance at queue entrances offered to the user. This calculation can be responsive to ***user preferences...*** and ***any priority attached*** to the particular user ...” (Sim, 34:22-27 (emphasis added),

The phrase “user preferences” consists of those attractions selected by the user, a preferred order and times in which they are visited. Sim uses an array of terms to mean the same thing in the context of selection:

As a noun, “queue”, “ride”, and “attraction” are equivalent, as in “the queues (or rides) which the user has registered for” (Sim 15:29-30) and “Figure 5 illustrates an alternative display... to indicate the ride or attraction” (Id. 16:5-7)

As a verb, “select”, “register”, and “request” are equivalent: e.g., “to select which queue they wish to join” (Sim 7:19); “the queues (or rides) which the user has registered for” (Sim 15:29-30); “The queue manager (QM)... accepts ride preference requests from guests.” (Sim 35:21-24)

In some cases, Sim combines selecting queues and a preferred sequence for them: “The docking station conveniently allows the person or group of people to select a preferred sequence of queues to be joined and preferred times of joining” (Sim 8:22-25, emphasis added); “In one embodiment, when a user registers for a queue sequence...” (Sim 9:25-26, emphasis added). In other cases, the notion of ride preferences and their preferred sequence are distinct: “the queues (or rides) which the user has registered for will be sent to the controlling computer 3 together with the preferred times and preferred sequence of rides to enable...” (Sim 15:29-32)

Thus, in different contexts, Sim uses “**ride preferences**” to mean the rides the user has selected, or those rides and a user-specified sequence of those rides; “**preferred sequence**” to refer to the selected rides and their sequence, or the selected sequence separately; and, “**time preferences**” are user-selected times for attending a ride (Sim, 18:12-15). These variable meanings are apparent where Sim says, “The docking station conveniently allows the person or group of people to select a preferred sequence of queues to be joined and preferred times of joining and

allows reselection of the preferred sequence and the preferred times at a later time.” (Sim, 8:22-27) and "the queues (or rides) which the user has registered for will be sent to the controlling computer 3 together with the preferred times and preferred sequence of rides to enable the controlling computer to determine the optimum sequence and time of the rides. (Sim, 15:29-34)

Thus, where Sim describes exhaustively that the “queue manager consists of a number of modules with clearly defined interfaces. ...The modules are:” (Sim, 18:29-33) and enumerates the modules, their purpose and categorized functions and says,

“Interfaces

- drivers/format for communication other than *transmission* above

Input Terminals

Accept Preference Information...”

(Sim, 19:17-21, italics in original, bold added), "preference information" includes ride selection, sequence selection, and time selection. No other module or input information is separately designated relative to selections, sequences, or times of rides, they are all lumped under "Accept Preference Information".

b. Doi (Exhibit 1006)

63. Doi, with respect to the third embodiment, discloses two examples:

Example 1:

“The navigation planner 42 plans a navigation method on bases of a crowd condition recognized from the positional information” Doi 9:36-39 (*emphasis added*);

“as an attraction A is crowded, the navigation planner 42 makes a plan to recommend other attractions to some of the customer queuing at the attraction A that are selected in consideration of their age” *id.* at 9:63-66 (*emphasis added*).

Example 2:

“The navigation planner 42 may be configured not simply to plan a navigation method in view of a degree of crowd about a customer, but also ***to make such a navigation as to positively propagate held events***. More specifically, if, for example, a popular attraction ‘Pokekun’ to be held still has non-reserved seats, there are selected matching ages to the attraction from ages of customer stored in use data memories 14, and invitations are given.” *Id.* at 10:12-19 (*emphasis added*).

The system Doi describes is *reactive*, which would not suggest to a PHOSITA an ability to assist in planning an itinerary. Petitioner has characterized the behavior of Doi as if the recommendations/invitations are *for the customer*. This is not the case.

Rather, one of the two pertinent examples of Doi is responsive to overcrowding (Doi, 9:36-39, 63-66), and the other is responsive to an underbooked attraction (*e.g.*, a theater with empty seats), and no customer-specific information is

employed in Doi when responding with a recommendation to the customer to address overcrowding or underbooking. In each example, Doi's system detects the real-time over/undercrowding situation that affects the facility. For overcrowding, Doi uses a function to identify which attractions are likely targets to which customers can be relocated so as to alleviate the issue:

“prepar[ing] a function from a crowd condition at each attraction, a waiting queue of customer waiting the attraction, and parameters such as necessary times for the customer waiting the attraction to move to other attractions, giving weights to the parameters, varying the parameters so that the function take a maximum value” (*id.* at 9:45-51), which identifies a particular attraction to be proposed. For underbooking, the underbooked attraction is the particular attraction to be proposed. In either case, a pool of customers at or sufficiently near the distressed location, and who are also of a certain age, are those to whom movement to the particular attraction is proposed.

64. In Doi's first example, having detected a crowded attraction, the function identifies a nearby attraction that is not crowded and proposes it as an alternative to folks at the crowded attraction whose age demographic corresponds with that nearby attraction.

In Doi's second example, having identified an underutilized attraction, identifying relatively nearby parties whose age demographic corresponds to the underutilized attraction.

Upon detecting an over/underutilization within the facility, Doi's system selects a destination attraction and identifies a portion of the customer population as candidates whose relocation to the destination is expected to resolve the detected issue.

VII. THE CHALLENGED CLAIMS OF THE '983 PATENT

65. The challenged claims of the '983 patent are set forth below.

1. A system for providing an itinerary to a party, said itinerary comprising a second set of attractions selected from a first set of attractions, said system comprising:
data regarding said first set of attractions;
information about said party, at least a portion of said information distinguishing among said first set of attractions with respect to said data;
a computer having access to said data and said information, said computer having software that selects said second set of attractions from said first set of attractions, said second set of attractions consisting of at least some of said first set of attractions for which said data substantially matches with said information;
a presentation means in communication with said computer, said presentation means able to receive said itinerary from said computer and present said itinerary to said party,
whereby said itinerary is customized for said party.

3. A method of providing an itinerary to a party, said itinerary comprising a second set of attractions selected from a first set of attractions, said method comprising the steps of:

- a) providing data regarding said first set of attractions;
 - b) gathering information about said party, at least a portion of said information distinguishing among said first set of attractions with respect to said data;
 - c) providing a computer having access to said data and said information, said computer having software that selects said second set of attractions from said first set of attractions;
 - d) selecting said second set of attractions with said software such that said second set of attractions comprises at least one of said first set of attractions for which said data substantially matches with said information;
 - e) providing a presentation means able to receive said itinerary from said computer; and,
 - f) presenting said itinerary to said party using said presentation means;
- whereby said itinerary is customized for said party.

4. The method of claim 3 wherein said information comprises a preference of said party; wherein said data distinguishes a portion of said first set of attractions as being more desirable with respect to said preference, and wherein in step d) at least one attraction from said portion of said first set of attractions is selected for said second set of attractions.

5. The method of claim 3 wherein said information comprises an attribute of said party, wherein said data distinguishes a portion of said first set of attractions as being more desirable with respect to said attribute, and wherein in step d) at least

one attraction from said portion of said first set of attractions is selected for said second set of attractions.

7. The method of claim 3 wherein said information comprises a privilege of said party, wherein said data distinguishes a portion of said first set of attractions as being more desirable with respect to said privilege, and wherein in step d) at least one attraction from said portion of said first set of attractions is selected for said second set of attractions.

8. The method of claim 3 wherein said data further comprises a scheduled time corresponding to a first attraction of said second set of attractions, wherein in step d) said software adds said scheduled time in association with said first attraction to said itinerary, and wherein step f) further includes presenting said scheduled time in association with said first attraction.

10. The method of claim 3 wherein in step d) said software further adds to said itinerary a first scheduled time corresponding to a first attraction of said second set of attractions, and adds a second scheduled time corresponding to a second attraction of said second set of attractions, said first scheduled time and said second scheduled time being selected so that said second scheduled time is at least equal to said first scheduled time plus a time required between attractions, whereby said second attraction is scheduled to follow said first attraction.

11. The method of claim 3, wherein said information comprises a third set of attractions previously selected for said party, said third set consisting of an already visited portion and a remaining portion, wherein said party forgoes said remaining portion due to an interruption,

wherein in step d) said software selects said second set of attractions as a replacement for said remaining portion, and wherein said second set of attractions substantially excludes said already visited portion, whereby said interruption is overcome.

12. The method of claim 3, wherein said first set of attractions comprises a plurality of attractions selected from the group consisting of ride, show, movie, theater, restaurant, exhibit, display, presentation, store, tour, parade, museum, room, area, fountain, restroom, hiking trail, picnic site, autograph session, historic recreation, beach, viewpoint, photo opportunity, lookout, fireworks display, attraction within a district, attraction within a city, attraction within a region, attraction within a state, and attraction within a country.

13. The method of claim 3 further comprising the steps of:

g) providing an access control system to a first attraction of said second set of attractions; and,

h) admitting said party to said first attraction with said access control system, said access control system operating in response to at least a portion of said itinerary corresponding to said first attraction.

14. The method of claim 3 wherein said computer comprises at least a first member selected from the group consisting of a portable computer, a handheld computer, a kiosk computer, a general purpose computer, and a desktop computer.

16. The method of claim 3 wherein said presentation means comprises a display selected from the group consisting of a screen, a touchscreen, and a scrolling display.

17. The method of claim 3 wherein in step f) at least a portion of said itinerary is announced audibly by said presentation means.

18. The method of claim 3 further comprising the step of:

g) providing a reservation computer in communication with said computer, said reservation computer providing an indication whether said a first attraction is available;

wherein in step d) said software excludes said first attraction from said second set of attractions when said reservation computer indicates said first attraction is unavailable.

19. The method of claim 3 wherein said data indicates a first attraction of said first set of attractions, said first attraction having excessive demand, and wherein said software is less likely to select said first attraction in step d), whereby demand for said first attraction is moderated.

20. The method of claim 3 further comprising the steps of:

g) providing a storage accessible to said computer; and,

h) recording at least a portion of said itinerary corresponding to a first attraction of said first set of attractions in said storage, thereby accumulating in said storage a directed demand corresponding to at least said first attraction.

21. The method of claim 3 further comprising the steps of:

g) providing a reservation computer in communication with said software; and,

h) making a reservation with said reservation computer for said party for a first attraction of said second set of attractions;

whereby said reservation for said party is accessible to users of said reservation computer.

22. The method of claim 3 wherein in step d) said software applies a perturbation to a desirability of a first attraction of said first set of attractions, said perturbation producing a different result for said second set, thereby redistributing a directed demand corresponding to said first attraction to mitigate at least one selected from the group consisting of underutilization of said first attraction, excessive demand for said first attraction.

23. The method of claim 3, wherein said data further comprises a first set of messages, each of said first set of messages selected from the group consisting of a marketing message, a discount offer, and a recommendation, each of said first set of messages having corresponding conditions, each of said first set of messages being associated with a corresponding first attraction of said first set of attractions, said software being further able to determine whether said conditions are met, said itinerary further comprising a second set of messages, said method further comprising the step of:

g) selecting said second set of messages with said software such that said second set of messages consists of at least one of said first set of messages for which the corresponding conditions are met;

wherein in step f) each of said second set of messages is provided to said party in conjunction with said itinerary;

whereby each of said second set of messages message is available at an appropriate time.

24. The method of claim 3, wherein said software comprises a decision making routine responsive to at least a portion of said data corresponding to a first attraction of said first set of attractions and at least a portion of said information, said decision making routine performing at least a portion of step d) with respect to said first attraction.

25. The method of claim 3, wherein a portion of said data corresponding to a first attraction of said first set of attractions is representative of at least one member of the group consisting of expected queue length, actual queue length, expected attendance, location of an entrance, location of an exit, showtime, mode of operation, routes to other attractions of said first set of attractions, routes from said other attractions, travel time to said other attractions, capacity, theoretical hourly ride capacity, holding capacity, duration, continuous running, availability, a scheduling factor, an acceptance factor, an admission requirement, an admission class, an admission grade, operating hours, inoperation, and wheelchair accessibility

VIII. CLAIM CONSTRUCTION

66. It is my understanding that all terms that are not construed are to be interpreted consistently with their use in the specification and are to be preferentially given plain and ordinary meaning. Thus, for all claim terms, I have used the plain and ordinary meaning as would be understood by a person of ordinary skill in the art.

67. It is also my understanding that in construing claims, the Federal Circuit “considers the prosecution history to determine whether the applicant clearly and unambiguously disclaimed or disavowed any interpretation during prosecution in order to obtain claim allowance.” *3M Innovative Props. Co. v. Avery Dennison Corp.*, 350 F.3d 1365, 1371 (Fed. Cir. 2003) (internal quotations and alterations omitted); *accord Omega Eng’g*, 334 F.3d at 1324; *Middleton, Inc. v. Minn. Mining & Mfg. Co.*, 311 F.3d 1384, 1388 (Fed. Cir. 2002); *Standard Oil Co. v. Am. Cyanamid Co.*, 774 F.2d 448, 452 (Fed. Cir. 1985).

A. Software That Selects

68. The Board in its Institution Decision (Paper 7) states:

The prosecution history indicates that the term “software to select” means that the software is selecting a set of attractions from the first set. Ex. 1002, 9 (amending the “operable to select” with “that selects”). However, claim 1 recites that the system “comprises,” in relevant part, a computer having software that selects a second set. “The well-established meaning of ‘comprising’ in a method claim indicates that the claim is open-ended and allows for additional steps.” *Solvay S.A. v. Honeywell Int’l Inc.*, 742 F.3d 998, 1005 (Fed. Cir. 2014) (quoting *Invitrogen Corp. v. Biocrest Mfg., L.P.*, 327 F.3d 1364, 1368 (Fed. Cir. 2003)). Thus, “software that selects” means that the software is selecting a set of attractions from the first set but does not exclude a contemporaneous or further manual confirmation or selection.

However, whether there exists a clear and unmistakable disclaimer that “software that selects” excludes a contemporaneous or further manual

confirmation or selection requires further factual determinations to be addressed at trial.

Paper 7, 20.

69. Here, it is my opinion that the prosecution file history of the '983 patent clearly and unambiguously disclaimed or disavowed an interpretation of the claims encompassing manual selection of attractions to include in an itinerary. During prosecution, in the Office Action of 04/28/2006 that was made final, the Examiner had rejected claims 4 and 87 (corresponding to published claims 3 and 1, respectively) under 35 U.S.C § 102:

“As per Claim 4.

Waytena et al ('770) discloses:

... selecting said second set of attractions from said first set of transactions for which said data substantially matches with said information, see figure 1 (104) and figure 7;

...whereby said itinerary is customized for said party, see figure 5D (545).” EX1002, p. 69.

“As per Claim 87.

Waytena et al ('770) discloses:

...a computer having access to said data and said information, said computer having software operable to select said second set of attractions from said first set of transactions [sic] for which said data substantially matches with said information, see figure 1 (104) and figure 7; ...whereby said itinerary is customized for said party, see figure 5D (545)” EX1002, p. 71.

Where Waytena's "FIG. 7 is a flowchart showing a method of processing requests for reservations" (EX1007, 4:53-54) and is only triggered when a guest has completed selection of an attraction for which to obtain a reservation and the request therefor is received. Waytena states,

"As patrons travel through the amusement park, they use PCDs 102 to request reservations for particular attractions in the park." (*Id.* at 12:16-18).

"[T]he patron requests 302 a reservation for a selected attractions by entering the request using user interface 201 of PCD 102." (*Id.* at 12:25-27).

"Upon receipt of a reservation request message from a PCD 102, computer 101 enters state 603." (*Id.* at 20:15-16).

"[C]omputer 101 then enters state 604 for processing the reservation request, as described below in connection with FIG. 7." (*Id.* at 20:27-29).

Waytena, therefore, is clearly directed to patrons making selections of attractions that produce reservation requests.

70. Responding in the Reply dated 7/28/2006, Applicants explained:

"As per Claim 4:

In '770 (and '364 [referring to Waytena's patent 6,748,364 filed as a continuation of '770 and originally cited by Applicants]), Waytena et al teach three distinct sets of attractions:

- a) the set of all attractions known to the system;
- b) a set consisting of attractions selected manually by patron's from

the set a); and,

c) a set of attractions for which reservations are obtained.”

Requiring the patron to create set b) was previously taught by Mahoney et al in 5,502,806, as pointed out by Applicants in the present application, paragraph 0018, as were the disadvantages of such systems in paragraphs 0021, 0024, and 0025. In 5,940,803, also discussed by Applicants in paragraph 0033, Kanemitsu teaches the same requirement and suffers the same disadvantages.” EX1002, 44:31-45:14.

“The Examiner asserts that Figure 2E corresponds to the ‘data regarding said first set of attractions’ (Applicants independent Claims 4 and 87). Applicants agree.

Likewise, Applicants agree that Waytena et al teach gathering information about a party.

However, Waytena et al do not even suggest that such data about the party is capable of distinguishing among said first set of attractions adequately to provide an itinerary. Rather, 770 repeats the same requirement and suffers the above referenced limitations of Kanemitsu and Mahoney et al. Waytena et al insist in 770, as did their predecessors Kanemitsu and Mahoney et al, that the patron must perform the selection of attractions. It is this selection which forms set b), above.” EX1002, 45:25-46:8.

71. The Examiner then issued an office action on November 1, 2006 rejecting all the claims with the following explanation:

“Applicant’s reply of 7-28-06 has been considered, but is not convincing. Applicant argues that Waytena et al (‘770) does not have

‘software operable to select’ but has only a manual step of selection. The examiner disagrees, Waytena et al (‘770) at column 14, lines 13-35 discloses that if desired, the patron may be presented with a list of attractions that match preferences, which is seen to meet the language of applicant’s selecting step.” EX1002, 20:6-11.

That is, the Examiner interpreted the claims at this point in the prosecution file history to encompass the manual step of selecting attractions for an itinerary as disclosed in Waytena.

72. It is my opinion that the claims were amended to preclude manual selection of attractions in the second set of attractions. The Examiner’s 35 U.S.C. § 102 rejection cited the ‘770 patent, clarified that the Examiner’s broadest reasonable interpretation of “software operable to select” encompassed the filtering functionality present in Waytena that narrows the offered list of attractions from which the users selects. *see also* Mahoney, 3:59-65, FIG. 4; and Kanemitsu, 8:4-27, FIGS. 4A, 4B.

73. It is my opinion that the prior art of record is replete with examples of narrowing the list of choices presented to users. Waytena, Kanemitsu, and Mahoney were each observed to beneficially reduce the set of attraction choices by filtering according to user preferences. Note that, “[a]ttractions are those rides, shows, shops, restaurants, tours, trails, presentations, displays, viewpoints, picnic sites, and other

specific features that are to be experienced by the facility's visitors." EX1001, 10:64-67.

- Waytena offers examples of ride preferences 522 which includes thrill rides, educational, shows, and kiddie rides (EX1007, FIG. 5A: 522) and teaches "the patron may also be presented with a list of attractions that match the particular preferences of the members of the patron's group." (*Id.* at 14:21-23).
- Mahoney teaches that "displayed on the display screen 56 may be selections or other menu items that are available to the patron." (Mahoney, 4:14-16). The list can be narrowed to individual categories, according to a user's preference for rides, restaurants, or shows, by pressing any of graphic icons 44, 46, or 48 shown in Mahoney FIG. 4. "For example, graphic icon 44 could be used to denote food service items with graphic icon 46 to denote rides[,] " (*id.* at 3:63-65) "or concerts and events by pressing graphic icon 48." (*Id.* at 4:20-21).
- Kanemitsu teaches "the process of classifying facilities according to categories and limiting to the desired facilities among many facilities, a visiting purpose can be assumed in view of the categories. For example, respective facilities are classified into "Eating spot", "Leisure facilities", "Sightseeing spot" and others and kept in the database 14 as shown in FIG. 4A. For example, the facilities belonging to the category "Leisure facilities" include WW Amusement Park, XX Park, YY Park, ZZ Lake and others as shown in FIG. 4B." (Kanemitsu, 8:5-13).

74. It is my opinion that Applicants intended to exclude manual selection for attractions of the second set. Given the fact that the specification identifies prior

art such as Mahoney and Kanemitsu and points out their requirement for manual selection as a drawback, it would be unreasonable to conclude that the applicants intended to claim a system or process based on manual selection of attractions.

75. Once Applicant clearly understood from the November 1, 2006 Office Action that their claim language could be read to encompass manual selection, an applicant initiated interview was scheduled for November 9, 2006.

76. During the November 9, 2006 interview, Applicants authorized the Examiner to make an examiner's amendment to narrow the claims to disclaim this manual selection of attractions. In particular, the claim limitation "software operable to select" in claims 4 and 87 (published as claims 3 and 1, respectively) were replaced with the claim limitation "software that selects" such that the resulting claim required the attractions to be selected by software on a computer. The application was allowed over Waytena and other prior art references that also disclosed manual selection of attractions after the amendment, with the following reasons for allowance:

As per Claim 4, Waytena et al ('770) does not specifically disclose computer having access to said data and said information, said computer having software that selects said second set of attractions from said first set of attractions, said second set of attractions consisting of at least some of said first set of attractions for which said data substantially matches with said information whereby said itinerary is customized for said party.

As per Claim 11, Waytena et al ('770) further discloses the aversion attribute (age), see column 7, lines 9-31, but does not specifically disclose a nullifying preference of said party, wherein said data distinguishes a portion of said first set of attractions as being less desirable with respect to said aversion attribute unless said corresponding nullifying preference is present and wherein in step d) at least one attraction from said portion of said first set of attractions is selected for said second set of attractions.

As per Claim 87, Waytena et al ('770) does not specifically disclose a computer having access to said data and said information, said computer having software that selects said second set of attractions from said first set of attractions, said second set of attractions consisting of at least some of said first set of attractions for which said data substantially matches with said information whereby said itinerary is customized for said party.

EX1002, 9-10.

It is my opinion, therefore, that this portion of the prosecution file history clearly and unambiguously disclaimed or disavowed an interpretation of the claims encompassing manual selection of attractions to include in an itinerary.

77. It is my opinion that this construction is consistent with the plain and ordinary meaning of the claim language itself in each of the two challenged independent claims. For example, each of independent claims 1 and 3 recites “said computer having ***software that selects said second set of attractions*** from said first

set of attractions” and that “said itinerary is customized **for** said party.” (emphasis added).

78. It is my opinion that this construction is also consistent with the specification of the '983 patent because eliminating the requirement for user selection was a stated goal of the invention:

“A facility may contain many attractions. Individual rides, restaurants, exhibits, stores, shows, etc. a real part of the value a tourist can experience at a facility. Besides the individual attractions a facility might contain, a facility commonly provides collateral materials such as maps and show schedules.

Too often, this collateral material hits the tourist with a barrage of comic book action balloons: ‘New,’ ‘Must See.’ Pages and pages of tables showing services, menus, merchandise, age appropriateness, and height restrictions are presented in a dazzling array of color and iconography.

Unfortunately, this frequently amounts to information overload. Its effect is compounded when a person is a first-time visitor, and again when they are from outside the primary marketing region of the facility (and so are unfamiliar with many of the facility’s attractions), and again when there is the barrier of a language difference.” (‘983 Patent, 1:41-58).

“A disadvantage of such [prior art] systems, however, is that the visitor must either know to visit an attraction to claim a spot in the virtual queue (under Laval et al.) or they must know what attractions to select

from the terminal (in Mahoney et al.) It may well be the case that a novice visitor has little or no idea where specific attractions are located (and thus is frustrated in trying to arrive in person to make a reservation). It can also be the case that he is not familiar with the array of attractions available, and thus cannot quickly and efficiently make knowledgeable attraction selections. Further, unless stringent restrictions are imposed, it can be the case that the reservations made by the over anxious visitor cannot actually be kept, as when two consecutive reservations are made for widely separated attractions.” (‘983 Patent, 3:21-35).

“This invention also makes it possible for visitors unfamiliar with a facility to make meaningful use of a queue management system as in Murphey et al., or any of the itinerary making systems otherwise described. These normally require the user to enter or select explicitly each attraction that they wish to visit. By application of this invention, such systems can be employed to create meaningful, satisfying itineraries for guests not familiar with a facility’s detailed offerings.” (‘983 Patent, 8:65-9:6).

Thus, it was a clearly stated goal of the invention to avoid the need for users to select attractions.

79. I note that the Board has largely agreed with Patent Owner’s proposed construction of “software that selects”:

“The prosecution history indicates that the term ‘software to select’ means that the software is selecting a set of attractions from the first

set. Ex. 1002, 9 (amending the ‘operable to select’ with ‘that selects’).”
(Paper 7, 20).

80. It is my opinion, however, that the Board erred in stating that the “software that selects” limitation “does not exclude a contemporaneous or further manual confirmation or selection.” (Paper 7, 20). The Board states that “claim 1 recites that the system ‘comprises,’ in relevant part, a computer having software that selects a second set... [and t]he well-established meaning of ‘comprising’ in a method claim indicates that the claim is open-ended and allows for additional steps...” (Paper 7, 20). The Board then concludes that “[t]hus, ‘software that selects’ means that the software is selecting a set of attractions from the first set but does not exclude a contemporaneous or further manual confirmation or selection.” (Paper 7, 20). I disagree with this conclusion.

81. The preclusion of the proposed “contemporaneous or further manual confirmation or selection” of attractions in the second set, exists in the plain language of independent claims 1 and 3, which each recite:

“...said itinerary comprising a second set of attractions...”; and,

“...software that selects said second set of attractions from said first set of attractions...”

In method claim 3, introducing a hypothetical step that involves manual confirmation or selection of attractions from a software-selected second set of attractions would result in a new, third set of attractions. However, such a step is

redundant and without purpose within the framework of the claim. This redundancy arises because the claim explicitly states that the itinerary includes the second set, as the claim recites "said itinerary comprising a second set of attractions." Consequently, a dependent claim introducing manual exclusion or alteration of the software-selected attractions contradicts the stipulation that the itinerary comprises the entire second set.

Furthermore, claim 3 recites "selecting said second set of attractions with said software such that said second set of attractions *comprises* at least one of said first set of attractions for which said data substantially matches with said information." Therefore, a hypothetical additional step proposing "said second set further comprising... <manually selected attractions>" would conflict with the existing claim structure. The plain language of the claim, "said computer having software that selects said second set of attractions" explicitly excludes manual selection.

Additionally, the claim accommodates instances where the software might select matches that are not precisely substantial by reciting "said second set of attractions comprises." This includes scenarios where mismatches have been corrected, *e.g.*, mismatches that have been nullified (a technique originally disclosed during prosecution in dependent claim 11, now published as independent claim 2, *see* EX1002, p. 24), or matches that, if not intrinsically substantial, have been perturbed in accordance with claim 22, etc.

82. For these reasons, presenting a party with a customized itinerary comprising the second set of (software-selected) attractions precludes any manual selection that would omit software-selected attractions from the second set before its presentation to the guest.

83. It is my opinion that the phrase “said itinerary comprising a second set of attractions,” as recited in claims 1 and 3, does not preclude a further limitation. For example, the ‘983 Patent, in the claims and in the specification discloses:

“said itinerary further comprising a second set of messages” ‘983 Patent, Claim 23;

“the party information is entered into query forms in the manner described below and stored in the party profile.” *Id.* at 13:7-9. And “a previous page button (not shown) may permit the party to review or revise their earlier answers.” *Id.* at 13:62-64;

“Operators of most facilities have such historical operational data readily available. Further, such a function could access actual, current queue information as it becomes available and whenever an itinerary is revised.” *Id.* at 19:57-60.

“Further, should a party miss an event, either because they ran late doing something else or otherwise elect to skip the current event, the portable computer 100 can set the remaining portion of the previous itinerary aside, and begin to generate a new itinerary with a different latter portion.” *Id.* at 29:42-46.

B. Presentation Means

84. Petitioner contends the claimed “presentation means” is a means-plus-function term under § 112, ¶ 6, that “can perform the function of (a) ‘receiv[ing] said itinerary from said computer’ and (b) ‘present[ing] said itinerary to said party.’” (Petition, pp. 8–9). Petitioner further contends the corresponding structure for performing the recited functions is display screen 130. (*Id.* at p. 9).

The Board “agree[d] that ‘presentation means’ is a means-plus-function claim term” and “adopted Petitioner’s construction” but noted that should “either party believe that a different construction should apply in the instituted trial, it should explain the proposed construction, how the construction is supported by the record, and how the construction affects our unpatentability analysis.” Paper 7, 19-20.

85. In accordance with the Board’s instruction, Patent Owner proposes a different construction. It is my opinion that the corresponding structure of the “presentation means” includes “a computing device different than the device that determines the itinerary and its associated display.” This structure is mentioned throughout the specification:

“it is possible that the itinerary generation step 716 may be performed by another computer (not shown) and then only itinerary results generated would be transferred to portable computer 100 in step 718.” (EX1001, 16:10-13)

“FIG. 1 illustrates an exemplary portable computer gathering information about a party in accordance with the principles of the present invention.” (*Id.* at 9:65-67)

“FIG. 4 depicts a schedule form, shown on the display screen, in accordance with the principles of the present invention, showing the next attractions in the itinerary for a party.” (*Id.* at 10:5-8)

“[P]ortable computer 100 has a display screen 130 for asking questions of and providing information to the party.” (*Id.* at 11:8-9)

“At any time after the itinerary generation results have been saved, *i.e.* step 718 is completed, pressing the itinerary button 154 calls up the itinerary form 400, shown in FIG. 4. (*Id.* at 14:1-3)

“Another embodiment allows a party to purchase an admission, answer the party information queries, and generate an itinerary via the Internet, or other remote access system. In this case, the query forms would be presented to the user’s remote terminal, for example a computer running a hypertext markup language (HTML) browser... and interacting through the hypertext transfer protocol (HTTP) to access a web site. It is well understood how one skilled in the art of web site design translates the forms presented here into HTML forms to query for and accept the same pieces of information... In addition, the itinerary generation may be run at the time of remote access and optionally presented to the user via the HTTP connection.” (*Id.* at 16:14-38)

“[O]ther modes of output and input will be suitable as they are made available. For instance, a portable computer 100 might make use of spoken questions and speech recognition input to gather the information of steps 712 & 714. The next event indicated on an itinerary form 400 by next event banner 420 [“10:45 Water Park” as shown in both FIGS. 4,5: 430, 432], might instead be announced audibly in the language of the party's preference.” (*Id.* at 30:61-67; *see also*, Claim 17)

That is, the structure corresponding to the “presentation means” may include a party’s portable computer when the itinerary is remotely generated, “a browser running on a computer, having communication with an itinerary generator,” and/or “a remote terminal interacting through HTTP and/or presenting HTML documents.”

86. Moreover, the corresponding structure of “presentation means” may also include “a printed itinerary” (*id.* at 16:47), “a printed series of pass forms 600, making essentially a customized ticket book” (*id.* at 11:55-57), and an audio interface (*id.* at 30:62-67; *see also* claim 17).

87. Accordingly, “presentation means” is a means-plus-function term under § 112, ¶ 6, that can perform the functions of (a) receiving said itinerary from said computer and (b) presenting said itinerary to said party. The corresponding structure for performing the recited functions is any of them and there equivalent: a portable hand-held computer as described at, *e.g.*, 10:44–53, and equivalents; a computing device and its associated display, wherein the computing device is

different than the “said computer” recited in the claims, that determines the itinerary and may be remote therefrom; a printer having communication with “said computer”; and an audio interface having communication with “said computer”. This construction is more representative of the support in the specification as cited, and is necessary for certain dependent claims (e.g., claims 15, 17) to make sense.

C. Substantially Matches

88. The Board in its Institution Decision states:

Patent Owner argues that an “exact match” is not a “substantial match” because a “substantial match” “eases the requirement for a match.” Prelim. Resp. 26 (citing Gonsalves Decl., ¶ 185). Patent Owner argues that the ‘983 patent “discloses that the computation to generate a customized itinerary may involve a utility function . . . [that] will be empirically determined; the greater the value returned by the function, the more desirable the event that was evaluated.” Id. (citing ‘983 Patent, 27:60–28:45). Thus, Patent Owner argues, even if there is not an exact match, a recommendation will be made. See id. (citing Gonsalves Decl., ¶ 185).

However, claims 1 and 3 do not recite how the match is determined. In other words, the claims do not recite the described utility function in determining whether there is a substantial match between data of the first set of attractions and the information. ‘983 Patent, 31:60–62; 32:42–46. “Although the claims must be read in light of the specification, it is important that we ‘avoid importing limitations from the specification into the claims.’” *Ericsson, Inc. v. D-Link Sys., Inc.*, 773 F.3d 1201, 1218 (Fed. Cir. 2014) (quoting *Phillips v. AWH Corp.*, 415 F.3d 1303, 1323 (Fed. Cir. 2005) (en banc)).

Claims 1 and 3 do not recite that the data must only “substantially” match such that an exact match is excluded. There is no specific definition of what would be considered “substantial” nor is there an exclusion of an exact match that, by its nature, is also a “substantial” match.

Paper 7, 21.

89. It is my opinion that the Board erred in states that: “[t]here is no specific definition of what would be considered ‘substantial’ nor is there an exclusion of an exact match that, by its nature, is also a ‘substantial’ match.” *Id.* Because a PHOSITA would have interpreted the claim limitation “substantially matches,” in light of the specification as follows:

- “Substantially matches” excludes a poor/low match, which violates some clearly identified party preferences (‘983 Patent, 6:50-53, 7:40-42, 22:43-46), *e.g.*, in FIG. 12 is represented by aversion marks (“-” signs, *e.g.*, 1242’, 1246’) unless nullified (by “0”, *e.g.*, 1246’)⁹. (*Id.* at 6:53-55, 22:46-49)
- “Substantially matches” excludes an unalluring (*i.e.*, neutral) match, which occurs between information about a party and data about an attraction if none of the acceptance factors 1030 for that attraction correspond in profile interpretation database 1200 to any of the party’s profile elements 1210, *i.e.*, the intersections between elements present

⁹ I am following Applicant’s pedagogic “binary all-or-nothing values” (‘983 Patent, 21:18-24) represented by the “+” and “-” entries in FIG. 12, but recognize, as the specification teaches, that fuzzy logic values or other more linear representation could be, intrinsic to their nature, less cut-and-dry.

in the party's profile and acceptance factors 1030/1240 for the attraction are all blank “ ” intersections in FIG 12, or are otherwise nullified. A unalluring match represents everything that is neither a substantial match, nor a poor match, *i.e.*, no “-” marks that are not nullified (by “0”) and having nothing in its favor (no “+” positive response marks), or as a matter of policy not enough in its favor, *e.g.*, not enough “+” markers. (*Id.* at 28:35-36) (“the least alluring attraction that is not closed or forbidden”). A PHOSITA would recognize from the specification and examples that such unalluring matches can occur, and while they could be included among the attractions selected for an itinerary, for being unalluring matches, they are not “substantial matches”. The specification describes a “least alluring attraction” encumbered with many unfortunate circumstances (distant location, a long line, etc.) placed at the low end of the desirability scale. (*Id.* at 28:34-36) The “least alluring” that an attraction can be, without being objectionable (*i.e.*, a poor/low match), is unalluring.

- “Substantially matches” are matches more alluring than an unalluring match and have nothing strictly objectionable (*i.e.*, is not a poor/low match). Attraction data “substantially matches” party information when the party profile matches at least one, but potentially more attraction acceptance factors having a positive response (“+” mark in FIG. 12, *see also* ‘983 Patent, 6:57-60)¹⁰, making such attractions a more desirable selection.

¹⁰ The interpretation should consider not only the pedagogical “binary all-or-nothing values” (*id.* at 21:20-21) but also the “more linear” “fuzzy logic or weighted metrics”

90. It is my opinion that Applicants recognized the wide latitude that the invention offers to a function designer and facility operators (*id.* at 28:13-16) when determining how a match is determined and characterized, including the **variety of factors** (party profile elements 1210 and attraction acceptance factors 1030/1240) and schemes for how to represent and interpret them:

- “For clarity of explanation, profile elements 1210 ... and attraction acceptance factors 1240 are presented herein as if they were binary all-or-nothing values. It is to be understood, and will be appreciated by those skilled in the art, that the principles of fuzzy logic or weighted metrics could easily be applied here to achieve [a] more linear, scalar result.” (‘983 Patent, 21:18-24)
- A “function for computing desirability of an event is going to be empirically determined. The greater the value returned...the more desirable is the event that was evaluated. The form of the function will be strongly dependent on the number and type of parameters in the party profile, the precise entries in the profile interpretation database 1200, ... along with a measure of judgement by the function designer who should be working in consultation, where appropriate, with the facility operators responsible for the visitors experience.” (Id. at 28:6-16)
- “Each attraction within a facility is rated against each factor...in the profile” (*id.* at 6:49-50). “Such ratings are preferably created by regression analysis.” (*id.* at 6:61) “Alternatively, ratings of the attractions can be generated by someone with a priori knowledge.” (*id.* at 7:5-6) “The choice of acceptance

approaches (*id.* at 21:22-24) as might be obtained by regression analysis (*id.* at 6:61) or empirical correlations (*id.* at 20:25-30).

factors 1030 incorporated into attraction database 1000 is either pontificated by an informed expert (such as facility operations personnel or an attraction designer), or gathered empirically by correlating answers given by visitors in surveys which ask a variety of questions and solicit the visitors' reactions to the attractions. The empirical method usually provides results with less unintentional bias.” (*id.* at 20:25-32)

- “FIG. 14 illustrates a flowchart describing in detail an exemplary method for generating an itinerary.” (*id.* at 10:30-31) “Itinerary generating method 1400 is suitable for performing the itinerary generating step 716.” (*id.* at 25:17-19) “Process 1400 will be recognized by those skilled in the ar[t] as a width-first locally-optimized search strategy. It will be obvious to those artists that some of the operations...are computationally expensive tasks... [and that such] inefficiencies will be considered targets for optimization.” (*id.* at 29:20-21)

91. It is my opinion that the specification describes many alternative implementations and choices available to an implementor, but that a PHOSITA would have understood what is claimed when the claims are read in light of the specification.

- “FIG. 14 illustrates...an exemplary method for generating an itinerary.” (*id.* at 10:30-13). “Itinerary generating method 1400 is suitable for performing the itinerary generating step 716.” (*id.* at 25:17-19). When initializing a new current record for determining the next consecutive event of the itinerary in step 1430, “[a] value of zero is entered into desirability field 1528 of the new current record.” (*id.* at 26:2-3) A temporary event 1540 is constructed for each candidate attraction and the desirability result (quality of match) “is entered into desirability field 1528 in the temporary event. If the desirability field of

the temporary event is greater than the same field in the current event, then all the fields...of the temporary event 1540 are copied into the current event record” (*id.* at 28:43-49). Iterating over all the attractions with this mechanism ensures that the most desirable attraction available for a party is selected for the corresponding time. At the conclusion of the evaluation, if the desirability field 1528 is still zero, then the itinerary is completed. (*Id.* at 28:60-63).

- “A convenient basis for constructing a utility function is the one-to-ten scale. A result of ten represents an attraction that makes the best possible (or best available) match to a party’s profile, just a few steps away. A result of one represents the least alluring attraction that is not closed or forbidden, at the furthest node in the facility, and having to wait when you get there, and having the largest excess demand so as to have required a large negative perturbation to discourage that excess demand.” (*Id.* at 28:31-39).

IX. THE CLAIMS OF THE ‘983 PATENT ARE VALID

92. It is my opinion, for the reasons set forth in detail below, that the claims of the ‘983 patent would not have been obvious over the combination of references set forth in the Petition and the declaration of Petitioner’s expert, Dr. Houh.

A. Ground 1, Claims 1, 3, 5, 7-8, 10-14, 16-17, 19-20, and 22-25 Would Not Have Been Obvious Over Sim In View Of Doi.

93. The Board in its Institution Decision states:

“[S]oftware that selects” means that the software is selecting a set of attractions from the first step, but does not necessarily exclude contemporaneous or further manual confirmation or selection by the user. Based on this interpretation, we find that Patent Owner has, on this record,

sufficient support for its contention that Sim teaches that the second set is selected by the user, not software.

However, Petitioner also alleges that Doi teaches the navigation planner (i.e., software) making a plan to recommend other attractions (i.e., a second set) based on a match between a customer's age (i.e., user information) and attractions in software, and selecting a recommendation of another attraction (i.e., a second set) based on a match of the age and attraction. See Pet. 19–20 (citations omitted).

Patent Owner argues that by requiring a confirmation, Doi teaches the user manually selecting the attraction. Prelim. Resp. 24. However, on this record and based on the construction of “software that selects,” as discussed above in Section III.D.1, as not excluding a contemporaneous or further manual confirmation or selection, we find Petitioner has sufficiently supported its contention that Doi's recommendation of another attraction is selected by software. Pet. 19–20 (citing Doi, 6:43–67, 9:63–10:33). The addition of a further step in Doi of confirming the recommendation before adding it to the itinerary does not disqualify the teaching.

Paper 7, 41-42.

94. It is my opinion that the Board is correct in stating that “Sim teaches that the second set is selected by the user, not software.” It is my opinion that the Board erred in stating that the “software that selects” limitation “does not exclude a contemporaneous or further manual confirmation or selection.” *Id.*

95. It is my opinion, that, under the proper construction of “software that selects,” the combination of Sim and Doi would not have taught at least the following

limitations from claim 1: “a computer having software that selects said second set of attractions from said first set of attractions, said second set of attractions consisting of at least some of said first set of attractions for which said data substantially matches with said information” and “whereby said itinerary is customized for said party.”

96. As explained above, claim 1, under the proper construction, does *not encompass a manual selection of attractions* in the second set for an itinerary provided to the user. Rather, claim 1 requires selection of the second set of attractions by the software on the computer and precludes additional manual confirmation steps by the user. Because each of Sim and Doi require the manual selection of attractions, the combination could not have possibly taught the limitations of claim 1 quoted above to a PHOSITA at the time of the invention of the ‘983 patent.

97. It is my opinion that selection-by-users is taught by the art cited by the Board, Applicant, Examiner, and Petitioner. Selection-by-users of which attractions are to be included in an itinerary is a feature pervasive in the itinerary-providing prior art identified by Applicant in the application as original filed, by the Examiner during prosecution, and by Petitioner here. Each of Sim and Doi teach this same limitation.

98. It is my opinion that in the original application, among other prior art relating to attraction access, Applicants cited Mahoney et al. (US 5,502,806, EX2006) as “providing computer terminals for visitors having an ID to make and edit reservations. Turnstiles are equipped with ID readers and so can admit or deny admission to the visitor based on having a timely reservation on the attraction.” (‘983 patent, 3:3-7).¹¹ Likewise, among other prior art relating to itinerary generation, Applicants cited Kanemitsu (US 5,940,803, EX2008) as describing “a system which allows selection from a list of destinations, such as a particular museum or a specific beach.” (‘983 patent, 4:62-64).¹²

99. During the prosecution of the ‘983 patent, the Examiner called out Waytena 5,978,770 at 14:13-35, though selection-by-user is apparent elsewhere therein, *e.g.*, “patron requests 302 a reservation for a selected attraction.” (Waytena, 12:25-26). With respect to subclaim 1[c] and its limitation of “said computer having software that selects said second set of attractions from said first set of attractions,” (Petition, p.17), it is my opinion that, the Petitioner erroneously asserts that “Sim [alone] renders obvious claim 1[c].” (Petition, p.17). Sim is absolutely consistent in

¹¹ See also Mahoney ‘806, which says, the “patron can select various choices” [‘806 Abstract] and “patrons that have the access card are able to select access times for various attractions, and are able to confirm at any time existing selections,... change previous selections....” (Mahoney ‘806, 2:28-32)

¹² Kanemitsu ‘803 also “requires a visiting purpose, such as to appreciate art or to watch the sun set, respectively. With each destination-purpose pair is associated the allowable times, as well as a recommended visiting time.” (‘983 patent, 4:64-67).

teaching that “the user will be required to enter manually the required rides” (Sim, 17:25-26) to be included in an itinerary¹³. It is a mischaracterization to attest otherwise.

100. As an example, Dr. Houh, cites Sim’s discussion on “re-allocation” (Sim, 23:32-24:22) then hypothesizes, “When re-allocating every user’s sequence, the controlling computer will select different attractions than what the user chose, such as by adding or removing an attraction.” (Houh Decl., ¶ 68). It is my opinion that this is fabrication mixed with partial truth – one cause Sim cites for initiating a re-allocation is “[i]f a ride failure occurs.” (Sim, 24:21-22). In that circumstance, the failed ride could be removed from the any user’s sequence of attractions. However, the remaining circumstances, a planned closure, (Sim, 24:7-11), or a light-loaded park in the morning, (Sim, 24:12-20), neither compel removing an attraction and in

¹³ See *e.g.*, Sim, 7:18-19 (“input means to allow the person . . . to select which queue they wish to join”); 8:22-24 (“allows...people to select a preferred sequence of queues to be joined”); 4:21-30 (“automatic registration gate corresponding to a respective queue . . . to add detected identification codes to the back of the respective queue”); 7:31-32 (“a person can remotely register for a plurality of queues”); 9:25-26 (“when a user registers for a queue sequence . . .”); 17:22-27 (“Registration for queues by users can be received either automatically by the removal of a prompter from a dispenser for a single ride or for multiple rides the user will be required to enter manually the required rides and ride sequence . . . as show in Figure 6.”); 32:1-5 (“Having obtained his or her prompter, the guest enters his or her ride and time preferences by means of docking stations 8 at the park entry points or at information kiosks throughout the park.”); 32:9-11 (“The user may, in addition, join any particular virtual queue by simply walking through the corresponding automatic registration gate.”)

no case, anywhere, does Sim propose automatically selecting an attraction to be added to a user's itinerary (though a user can select one to be added, see Sim 32:13-17).

101. In the paragraph immediately prior to Sim's discussion of re-allocation, Sim discusses a procedure directed to users registering late in the day, in which controlling computer 3 allows that "[s]uch a user could join certain queues near the front," (Sim 23:22-30), that is, allowing the late-arriving user to cut the virtual line, rather than joining Sim's virtual queue at its end. Sim goes on to say that "[t]he structuring and managing of the queues are features which can be customised to suit[] a particular situation. The controlling computer 3 will thus operate in accordance with the customised algorithm to manage the queues." *Id.* It is my opinion that Sim's re-allocation discussion is a continuation of this thought. For example, if an operator decides to close an attraction early, the Sim's virtual queue for that attraction can be accelerated so all users having selected that attraction will have their access, though some earlier than originally planned and, for some of those users, this means their sequence of attractions may get changed. There is no basis in Sim for positing that the controlling computer 3 would add attractions.

102. It is my opinion that in the passages Petitioner cites from Sim (Petition, p.18), Sim's "queue manager" is calculating "actual time and sequence of attendance at queue entrances offered to the party." The choices so offered can be narrowed "in

response to party preferences”. Here, Petitioner leans heavily into the phrases “ride preference requests” and “party preferences” to sew confusion as if they correspond to Applicants’ notion of “preferences” (a term that the ‘983 patent claim 4 uses to describe one kind of “information about a party”)¹⁴. As discussed in detail at ¶62, for Sim, these “preferences” are the *attractions selected by the party*, further including possibly a preferred sequence or preferred time for individual attractions usable to bias the itinerary generation. (See Sim, 7:15-19, 8:22-27, 15:23-34) (emphasis added).

103. It is my opinion that the pattern of the prior art teaching user-selected attractions continues with Doi. Petitioner cites passages specifically revealing this: “[Doi’s] navigation planner 42 makes a plan to recommend other attractions,” and Petitioner characterizes this as “selecting”. (Petition, p.20) The complete passage in Doi is:

“For example, as an attraction A is crowded, the navigation planner 42 makes a plan to recommend other attractions to some of customer[s] queuing at the attraction A that are selected in consideration of age. For example, for customers selected from a view point of their ages, such navigation information is presented that ‘Attraction A is crowded.

¹⁴ The “information about said party” recited in claims 1 and 3 is typified as “interest or aversion to thrill rides or particular themes” (‘983 patent, 6:27-28). Were the user to select the set of attractions, then the purpose recited in each of those claims, “whereby said itinerary is customized for said party” is pre-achieved.

Attraction D (enjoyable for an aged person) is not crowded, how is it?[, as shown in FIG. 11.”
(Doi, 9:63-10:3).

This clearly illustrates that a choice is being presented to the user – continue in the same queue for attraction A or select the choice recommended.¹⁵

104. It is my opinion that a filtering of available attractions would not have taught the claimed “software that selects.” The filtering of attraction choices offered to users was already part of the prior art considered: In the Non-Final Rejection dated 11/01/2006, the Examiner had considered Applicant’s argument “that Waytena et al (‘770) does not have ‘software operable to select’ but only has only a manual step of selection” but found that “Waytena et al (‘770) at column 14, lines 13-35 discloses that if desired, the patron may be presented with a list of attractions that match preferences, which is seen to meet the language of applicant’s selecting step.” (EX1002 p. 20, Non-Final Rejection 11/01/2006 §2).

105. Applicant’s argument was ultimately successful when the language of independent claims 4 and 87 (which became claims 1 and 3 upon issue) was amended to ensure that Waytena’s manual step of selection no longer met the language of applicant’s selecting step as acknowledged by the Examiner near the end of prosecution in that:

¹⁵ It is also the case that this example from Doi is operating in real-time, which limits its applicability to an itinerary-generating system.

“Waytena et al (‘770) does not specifically disclose computer having access to said data and said information, said computer having *software that selects* said second set of attractions from said first set of attractions, said second set of attractions consisting of at least some of said first set of attractions for which said data substantially matches with said information whereby said itinerary is customized for said party.

(EX1002, pp. 9-10, Notice of Allowability 01/19/2007, Allowable Subject Matter, ¶4 (emphasis added)). Where Doi teaches recommendations (Doi, 9:64) and invitations (Doi, 10:19), it is my opinion that these are akin to Waytena’s “patron . . . presented with a list of attractions that match preferences.” as cited by the Examiner and traversed during prosecution.

106. Moreover, there would have been no reasonable motivation for a PHOSITA to combine the teachings of Sim and Doi as Petitioner has proposed. As both Sim and Doi lack the feature of “said itinerary comprising a second set of attractions” and “software that selects said second set of attractions”, Petitioner and its expert have not even set forth a *prima facie* case of obviousness. Additionally, Petitioner asserts “a PHOSITA would have been motivated to combine the teachings of Doi and Sim” (Petition, p.21), but in the same paragraph admits there is no motivation to combine the references because “Doi recognizes the[] same problems and provides similar solutions to achieve the same results as Sim.” (Petition, p.21). Indeed, references such as Sim and Waytena (and Mahoney, Laval discussed in the

specification of the '983 patent) are systems whose stated purpose is to reduce time spent in physical queues by creating and managing virtual queues, with separate, special purpose entrances¹⁶, for those attractions most in-demand. With only a minority of attractions implementing multiple entrances, there is understandably no motivation for a more sophisticated system able to generate itineraries for *all* of the attractions in a venue.

107. It is also my opinion that a PHOSITA would not have combined the teachings of Sim and Doi and reasonably expect success for four additional reasons.

108. First, rather than selecting an attraction for a party, Doi selects a class of parties for an attraction. Rather than determining what attraction to recommend for a particular party, Doi instead determines a class of parties that match an attraction. Receiving a recommendation because one is a member of a class is different than receiving a recommendation because the attraction suits your party. In one Doi example, “The navigation planner 42 plans a navigation method on bases

¹⁶ Sim’s FIG. 7, conventional queue 105 vs. the virtual queue’s gate 100, turnstile 101, mixing area 102 (see also Sim, 21:29- 22:3); “Persons in the [conventional] physical queue are admitted on a regular basis, and in confluence with those patrons arriving at the attraction who previously made an electronic reservation” (Waytena, 3:60-63); “The interleave ratio...is the number of persons to be admitted from the [conventional] physical queue for each person admitted from the virtual queue.” (id at 22:44-47); Mahoney’s ‘806 FIGS 1 & 3, conventional non-card line 70, card line 66; Laval’s 6,173,209 FIG.1 conventional “wait-in-line” queue 24, pass queue 26, “For example, 80% of the available spots for the attractions may be dedicated to and filled by customers from the second queue 26, while the remaining 20% are filled by customers from the first queue 24.” (Laval, 6:8-12).

of a crowd condition recognized from the positional information...” (Doi, 9:36-38). The planner “generates customer navigation information” with “a function from a crowd condition at each [other] attraction, a waiting queue of customer waiting the [crowded] attraction, and parameters such as necessary times for the customer waiting the [crowded] attraction to move to other attractions” (*id.* at 9:41-49), which parameters are not specific to any customer. Doi’s other example is an attraction about to start with unbooked seats (*id.* at 10:15-17), by this detection, the attraction is already determined, what remains is to select a group of customers: “there are selected matching ages to the attraction from ages of customer in use data memories 14, and invitations are given.” (*id.* at 10:17-19). Doi exhibits an ability to, given an attraction, identify parties that are a suitable match. Doi does not demonstrate being given a party and finding suitable attractions. Doi says this clearly, “For example, for customers selected from a view point of their ages, such navigation information is presented that ‘Attraction A is crowded. Attraction D (enjoyable for aged person) is not crowded, how is it?’” (Doi, 9:66-10:3). The Board noted that “Petitioner alternatively argues that ‘[t]o the extent Sim does not disclose that its computer ‘selects’ particular rides when creating an itinerary, Sim in view of Doi[] renders this obvious.’ Pet, 19” (Paper 7, 39, markup in original). Since Doi selects parties, not attractions, Doi does not provide the functionality recited and the necessary motivation to combine is not present.

109. Second, Doi's system is situationally triggered. Doi's reaction to an over/undercrowding problem is to select an attraction and identify parties to whom that attraction can be recommended, thereby inducing their migration to the selected attraction. Absent a problem to be solved, *i.e.*, an over/underutilization problem, Doi exhibits no basis for making recommendations. Disregarding other issues, were a party attempting to obtain an itinerary at a time when no under/overcrowding situation exists, the proposed combination would be non-functional.

110. Third, Doi's system operates based on real-time user position information to determine crowdedness and locations of customers for recommendations. Disregarding other issues, were a party attempting to obtain an itinerary now, Doi would provide a single recommendation and stop. There is no evidence that Doi's recommendations apply to any time other than right now. Were the party attempting to obtain an itinerary for tomorrow morning, there is no evidence that Doi can provide any recommendations. Again, the proposed combination is non-functional.

111. Fourth, as previously argued, Doi's system requires user a confirmation to accept or decline the recommendations/invitations (Doi, 10:3, 8-11, 23-28, FIG. 11). Sim also requires manual selection. Since neither Waytena, Sim, nor Doi "select" particular rides when creating an itinerary", but leave such decision-making to the user, there is no motivation to combine.

112. For lacking a functional combination and motivation to combine, it appears that these patents have been collected based on impermissible hindsight reasoning, and the teachings of the individual patents contorted to resemble the claimed invention of the ‘983 patent.

113. The Board in its Institution Decision states:

As discussed above in Section III.D.2, claim 1 does not recite that the data must only “substantially” match such that an exact match is excluded nor does it recite “the computation to generate a customized itinerary may involve a utility function.” Prelim. Resp. 26. (citing ‘983 Patent, 27:60–28:45). Petitioner shows sufficiently for institution that Doi’s exact match satisfies the recited substantial match. Further, as discussed above, Doi does teach software recommending an attraction based on a customer’s age, which could be considered to be generating a customization for the party. On this record, we find Petitioner has sufficiently supported its contention that Doi teaches a substantial match.

Paper 7, 42.

114. It is my opinion that under the proper construction, the Board erred in stating that “claim 1 does not recite that the data must only ‘substantially’ match such that an exact match is excluded nor does it recite ‘the computation to generate a customized itinerary may involve a utility function.’” *Id.* It is my opinion that the method and system of the ‘983 patent (as claimed, for example, in claims 1 and 3) will generate an itinerary for a user, even if there are no exact matches and will instead generate an itinerary based on a substantial match. A PHOSITA would

readily understand that this relaxation in the matching requirement is a significant improvement over the prior art of Sim and Doi that require exact matches.

115. Petitioner asserts that “Doi’s system collects ‘use data’ reflecting ‘use frequencies of attractions by customer ages’ and attraction ‘waiting times’” and that Doi’s the customer terminal¹⁷ can “apply this ‘use data’ to ‘select’ attractions for the customer based on their information matching attraction data.” (Petition at pp.19-20). Doi further discloses that customer confirmation is needed before the system navigates the user to other attractions. (See Doi, 9:63-10:11 (“the customer a is allowed to decide . . . whether to move to the attraction D in accordance with the navigation.”); Doi, 10:12-19 (“invitations are given.”); Doi, 10:20-33 (“If the customer b . . . gives a consent to reserving seats . . . then a corresponding number of seats are reserved, enabling a navigation from a current position to an attraction center[.]”); Doi, 10:38-44 (“[G]uiding a non-crowded attraction to the customer, by informing an attraction and taking a reservation[.]”)).

116. It is my opinion that Petitioner then provides examples of *users* being selected that *match exactly* the *attraction* data, rather than *attractions* that *substantially match* the *party* information. Petitioner cited to Doi and states that, “for

¹⁷ Doi’s actual teaching is that the service server 4A comprising the navigation planner 42, upon detecting an over/under crowding conditions, identifies the optimal attraction and recommends it to a class of customer. This is not a function of the customer navigation terminal 1C. Rather, the function of the customer navigation terminal is to adjust the navigation depending on age and crowd condition.

example, a popular attraction ‘Pokekun’ to be held still has non-reserved seats, there are selected matching ages from ages of customer stored in use data memories 14, and invitations are given.” (See Petition at p.20). The example indicates that an invitation will not be given unless the customer’s age matches the age requirement of the attraction. The ‘983 Patent, in contrast, discloses a computation to generate a customized itinerary that involves a utility function. The utility function will be empirically determined; the greater the value returned by the function, the more desirable the event being evaluated. (*Id.* at 28:6-16). The ‘983 Patent provides an example of a utility function: the one-to-ten scale.

“A result of ten represents an attraction that makes the best possible (or best available) match to a party’s profile, just a few steps away. A result of one represents the least alluring attraction that is not closed or forbidden, at the furthest node in the facility, and having to wait when [the party] get there, and having the largest excess demand so as to have required a large negative perturbation to discourage that excess demand. If the one-to-ten scale is used, a result of zero is appropriate to attractions that are not open or are otherwise forbidden.” (*Id.* at 28:31-42).

117. The Board in its Institution Decision, cited to Petitioner, states:

“Moreover, Sim’s system, as modified by Doi, results in itineraries ‘customized’ for a party, as attractions and times are selected based on those attractions matching the party’s information.”

Paper 7, 43.

118. It is my opinion that the Board is incorrect. The last clause of claim 1 also emphasizes the distinction between itineraries customized *for* a party and itineraries customized by a party. Claim 1 teaches “whereby said itinerary is customized *for* said party” instead of reciting “customized *by* said party.” “Customized for” indicates that the software makes the selection of the itinerary for the party, whereas “customized by” implies that the selection is done by the party.

119. It is my opinion that the ‘983 Patent further discloses that when the computer is generating a customized itinerary for a party, a potential event is selected to be evaluated by the utility function. (‘983 Patent, 28:43-55). Once the utility function is run for the potential event, the result is entered into a desirability field. *Id.* If the desirability field of the potential event is greater than the same field in the current event, then the potential event is selected. *Id.* Thus, it is my opinion that the ‘983 Patent discloses software that determines “the best possible (or best available) match to a party’s profile,” and the software then gives preference to attractions receiving a higher ranking. Consequently, the ‘983 Patent discloses an element that does not exist in Doi, which only discloses an exact match.

120. In a footnote, Petitioner asserts that “[t]here can be no question that Doi discloses a ‘substantial match’ as claimed, irrespective of the precise boundaries of that term, as Doi discloses that there is an actual match between attraction data and party information[.]” However, the assertion is simply not true. The substantial

match disclosed in '983 Patent is not the exact match that is disclosed in Sim or Doi. In Doi, an age of the customer stores in the use data memory, "the customer navigation can be varied in dependence on the age as well as on the crowd condition." (Doi, 9:52-62). A second attraction is recommended (*i.e.*, "invitations are given") if "selected matching ages to attraction from ages of customer stored in use data memories." (Doi, 10:12-33). In another words, if the ages of customers do not match exactly the attraction data (*i.e.*, the customer's age falls outside the enjoyable age range for the attraction), a recommendation will not be made.

121. Petitioner and its expert assert that claim 3 would have been obvious over Sim and Doi. In particular, Petitioner asserts that "Claims 3[pre]-3[e] are near identical to claims 1[pre]-1[e]." It is my opinion that Petitioner and its expert are wrong on claim 3 for the reasons expressed above with respect to claim 1. That is, the rebuttal above for claim 1 also applies to claim 3.

122. It is my opinion that, all dependent claims are necessarily valid in light of Petitioner's failure to prove claim 3 invalid, since dependent claims are nonobvious under 35 U.S.C.S. § 103 if the independent claims from which they depend are nonobvious.

123. It is my opinion that claim 5 would not have been obvious over Sim in view of Doi, not only because claim 5 depends from a patentable base claim but for additional reasons as well. Claim 5 requires that the information about the party

comprises an attribute distinguishing a portion of the attractions as being more desirable, and one of those is selected by the software in step d) as the software selects the second set of attractions.

124. In contrast, Sim recites “The system would request other relevant information such as height or health status, *which may be relevant in allowing access to certain rides* and information such as the need for a stroller or wheelchair. In the case of a group of visitors sharing one portable module, information on each individual will be required.” (Sim, 22:32-23:3) (emphasis added). Sim does not use party attributes to select attractions to be in the itinerary . . . as that remains the domain of the patron, but does recognize that such attributes may affect individual party members at the point of access.

125. Doi states that “memory 11 is adapted...to memorize the customer’s... parameters, such as the height and age, that do not invade the person’s privacy, but are necessary for use, such as of an attraction.” (Doi, 5:21-25). Later, “at the step S102, there is made a check...which does not always constitute a limitation. For example, if a taller height than 120 cm is necessary . . . or if merely ages of 4 years or more are permissible . . . a decision as to whether the user meets a present limitation of use. In failure to meet the limitation of use, there can be given at the step S103 a notification to the customer navigation terminal 1A, with a message such that ‘height is shorter than 120 cm, and regretful for the use to be impossible’ or that

‘children under 4 years of age must be accompanied with a guardian to ride.’” (*Id.* at 6:43-56). However, this is in the context of someone “in a vicinity of the customer guide server 2A” (*Id.* at 5:55-56), which are “installed at such particular points as attractions...” (*Id.* at 5:30-31) and not in the context of an itinerary.

126. Elsewhere, Doi provides recommendations that a user chooses whether to accept. Doi provides the example of recognizing one attraction is crowded and another not, and selects users of a similar demographic to receive recommendations. (Doi, 9:58-10:8, FIG. 11) and “the customer a is allowed to decide” (*Id.* at 10:9, wherein “customer a” is the identifier of one of the customers in FIG. 11). Another example issues an invite to a parent for a show suitable for their child that has open seats and is starting soon (*Id.* at 10:15-24) and “If the customer b or guardian thereof gives consent to reserving seats...” (*Id.* at 10:24-33). Both of Doi’s examples are real-time recommendations, for immediate implementation: One recommends a currently shorter queue. The other initiates a reservation.

127. It is my opinion that claim 7 would not have been obvious over Sim in view of Doi, not only because it depends from a patentable base claim but also for additional reasons as well.

128. Sim’s discussion of “privileges” as cited by Petitioner makes clear that Sim’s invention “can be employed in theme parks as a queue management system for all of the guests, or for a proportion of the guests who are willing to pay a

premium, or one of a range of premiums corresponding to a range of privileges,” (Sim, 3:23-27) but fails to specify any specific “privilege” beyond who can use it, and that there could be a range of privileges not further described. Petitioner also cites Sim later saying that “[t]he system can allow different classes of guest depending on the fee paid,” (Sim, 37:3-4) which is similarly nonspecific.

129. A PHOSITA would have recognized that the above teachings clearly each align with Sim’s passage describing “[w]here there are fees associated with one or more queues, ...[t]he payment means is adapted to request payment and await receipt of payment before registering a person... for a desired queue which has a fee associated therewith.” (Sim, 12:35-8). This illustrates a clear selection by the guest, to the point of executing a purchase, to be admitted to Sim’s virtual queue.

130. Yet Petitioner at p. 25 §4 points elsewhere, to Sim saying “[t]he queue manager includes means of calculating actual time and sequence of attendance at queue entrances offered to the user. This calculation can be in response to user preferences, *e.g.*, rides selected, preferred sequence of rides, or ride times¹⁸, on the overall demand in the system and *any priority* attached to the particular user and would result in effectively, *a recommended route.*” (Sim, 34:22-32) (describing the

¹⁸ See Sim, 15:23-24 (“Figure 6 illustrates the display which will allow the user to select the queues to be joined.”); 17:25-26 (“[T]he user will be required to enter manually the required rides and ride sequence.”); 22:29-32 (“The park visitor... would use terminals... at information kiosks...to enter ride and time preferences.”)

route optimization process). Applicants presented as prior art in the ‘983 patent’s specification in the section titled “Prior Art Relating to Itinerary Generation” and speaking of various route-planning systems, all of which require user selection of destinations (‘983 patent, 4:1-5:10). Here, no attraction is shown to be distinguished “as being more desirable with respect to said privilege” and “selected for” the itinerary as recited in claim 7.

131. Another passage describes a priority attached to users, where Sim says, “controlling computer 3 can operate... [to] ensure that a user registering late in the day would be given access to the same number of queues as a user registering earlier in the day. Such a user could join certain queues near the front.” (Sim, 23:22-27). While not mentioned in any context of privilege (Sim says everyone gets the same number of queues and no pricing is mentioned), a PHOSTIA would understand that being able to join at the front of a queue, rather than at its end, represents a priority access. Still, this priority is seen to have no influence on the selection of attractions, as required by the claim 7, merely on the recommended route.

132. It is my opinion that claim 8 would not have been obvious over the combination of Sim and Doi, not only because it depends from a patentable base claim but for additional reasons as well.

133. Claim 8 requires the data about the attraction to comprise a scheduled time, *e.g.*, “discretely scheduled times, such as theaters with specific show times,”

(‘983 patent, 9:12-13), which for some attractions can vary by location, *e.g.*, the arrival time of a parade along a parade route (‘983 patent, 47-56). Petitioner’s argument does not demonstrate how Sim provides this, as the example attractions from the citation of FIG. 3, “Space Mt” and “Haunt HS”, (assumed to be proxies for Disney’s “Space Mountain™” and “Haunted Mansion™”) would be attractions that continuously accept riders.

134. It is my opinion that claim 10 would not have been obvious over the combination of Sim and Doi, not only because claim 10 depends from a patentable base claim, but also because of the limitations recited within claim 10.

135. Petitioner asserts that Sim “takes into account that parties must ‘physically be able to get from one ride to another in time.’ (Sim, 24:7-11) Sim’s system thus accounts for the time needed to get from one ride to another when generating the sequence of queues, and a PHOSITA would have known from Sim for the ‘second scheduled time’ (*e.g.*, 1:45 for Haunt Hs) to be equal to the ‘first schedule time’ (*e.g.*, 12:15 for Space Mt) plus a ‘time required between attractions’ (Hough Decl., ¶90).”

136. However, the discussion Sim is having in the paragraph cited is about a scenario in which “[t]he theme park is lightly loaded and certain rides are going to be closed down.” (Sim, 24:5-8) Sim’s concern is the ride is going to be closed unless an extant ride sequence undergoes “some re-arrangement of queues” (Sim, 24:10-

11), say, attraction A is open until the park closes but attraction B closes early, and by the time you've moved through the queue at attraction A, attraction B is closed, even if you traveled instantaneously. So do attraction B first. Petitioner has offered no evidence that Sim's system understands the relative positions of the attractions or travel times between them (*e.g.*, Sim offers nothing similar to or able to substitute for "FIG. 8 is a map of an exemplary facility idealized as nodes and links suitable for designing routes; FIG. 9 illustrates a link database representing the exemplary facility map of FIG. 8; FIG. 10 illustrates an attraction database representing attractions at [the] exemplary facility of the map of FIG. 8;" or "FIG. 11 shows a node list database representing aggregations of nodes at which the associated attraction can be experienced" ('983 patent, 10:16-24). Sim offers no recognition of slow vs. fast groups having different speeds. A PHOSITA could not have possibly mistaken Sim for understanding the recited "time required between attractions".

137. It is my opinion that claim 11 would not have been obvious over the combination of Sim and Doi, not only because claim 11 depends from a patentable base claim, but also because of the limitations recited within claim 11.

138. Doi collects "use data": "In the use data memory 14 are stored, for example, a type of attraction used and a time of use as shown in FIG. 7A. As another example, the data of use time may be separated into a use start time and an end time, to be stored as shown in FIG. 7B, or a waiting start time, *i.e.*, the time when a waiting

is started may be added to be stored as shown in FIG. 7C.” (Doi, 8:11-16). Doi proposes that a “use data collector 3 is installed in...vicinity of an exit of the theme park, for example, for recovering a customer navigation terminal 1B after use of a customer, and collect uses data stored in the use data memory 14.” (Doi, 7:50-54). Discussing the value of the user data collected, “a variety of summations...reflecting the results on services such as in a theme park... sum[ming] use frequencies of attractions by customer ages as shown in FIG. 8 for example . . . Moreover, waiting times are summed by attraction types A, B, C, . . . , respectively, as shown in FIG. 9 for example.” (Doi, 8:20-28).

139. It is my opinion that throughout, Doi offers no evidence that use data is used as a basis for recommending attractions (*e.g.*, by precluding a recommendation for an attraction already visited). Further, even if there were, in the example cited by Petitioner (Doi, 9:36-10:11), because Attraction A is crowded, Doi makes a recommendation for Attraction D, which necessarily excludes Attraction A. However, Attraction A hasn’t been visited yet, so the implicit exclusion of Attraction A in the recommendation of Attraction D is not evidence that the limitations of claim 11 are met as there is no exclusion of an already visited portion. Presumably, later on, should the crowded condition subside, Attraction A might be recommended then. Further, Sim explicitly supports repeat reservations for already-visited attractions. (Sim, 29:5-8).

140. So, in addition to a lack of software that selects the second set of attractions which the itinerary comprises, in the combination of Sim in view of Doi, while Doi has collected a list of attractions that the customer has visited, there is no evidence that this list is used as a basis for Doi's recommendations and excluding members listed as having been visited, as recited in Claim 11.

141. It is my opinion that claim 13 would not have been obvious over the combination of Sim and Doi, not only because claim 13 depends from a patentable base claim, but also because of the limitations recited within claim 13.

142. Sim's "[p]ortable module... has a receiver 70 for receiving the "identify yourself" signals from the gate units 2" and responds with "the portable module's serial number" (Sim, 22:9-14), which is not "at least a portion of said itinerary corresponding to said first attraction" as recited in claim 13. Applicants taught that, "A current event banner 420 identifies the current event in the itinerary." ('983 patent, 14:14-15). "In the special case of current event attraction name 430, touching it may optionally bring up a pass form 600, showing a reservation or access permission. Such a pass is shown in FIG. 6 . . . information preferably provided on the pass form 600 includes," "party size," "attraction name," "event time," and "an authentication code or signature (not shown)" which "may be expressed . . . as a barcode." (*See Id.* at 14:58-64, 15:4-28, 16:65-66). Where such a pass is a part of the itinerary, a serial number of a device is not.

143. It is my opinion that claim 17 would not have been obvious over the combination of Sim and Doi, not only because claim 17 depends from a patentable base claim, but also because of the limitations recited within claim 17.

144. The '983 patent teaches "portable computer 100 might make use of spoken questions and speech recognition input to gather the information of steps 712 & 714. The next event indicated on an itinerary form 400 by next event banner 420, might instead be announced audibly in the language of the party's preference," ('983 patent, 30:62-67) and is the aspect of '983 to which claim 17 is drawn.

145. Petitioner presents a similar argument as the Examiner did during prosecution when the Examiner cited Waytena as disclosing that "[t]he reservation alert issued by module 204 may take the form of a visual indication on user interface 201, optionally accompanied by an auditory indication such as a beep, voice message, or other distinctive sound. Module 204 may also alert the patron by use of vibrations as is known in the art with respect to pager alerts. This is particularly advantageous in a noisy environment when an auditory alert may not be heard by the patron, or where a visual alert may not be noticed." (Waytena, 18:59-67).

146. It is my opinion that an "auditory indication" even one in the form of a voice message is not the same as "the next event indicated on the itinerary . . . might instead be announced audibly," ('983 patent, 30:65-67) and does not correspond to

the limitation recited in claim 17 that “at least a portion of said itinerary is announced audibly by said presentation means.”

147. Dr. Houh hypothesizes that this spoken message could be “Time to Go to Ride X” (Houh Decl., ¶99) but a large number of distinct audio clips would be challenging to maintain and keep current. A PHOSITA, on seeing the equivalence that Sim presents, “*e.g.*, a spoken message or tone” (Sim, 3:35) would recognize that a single, generic spoken message such as “Time for your next attraction!” would function as well as a tone. This is similar to “You’ve got mail!” a spoken message well-known-in-the-90’s, featured in the Tom Hanks movie “Sleepless in Seattle” released in 1993, and notoriously familiar at the time Sim was filed, for being the signal that the AOL email reader used in lieu of tones that other email readers used to announce arrival of an email. By way of further counterexample, email readers did not announce who your email was from or what the subject line read.

148. Additionally, Sim teaches that in some embodiments. “Registration for queues by users can be received automatically by the removal of a prompter from a dispenser for a single ride” (Sim, 17:22-24). In such a case, no display would be needed and the prompter merely needs to signal that it’s your turn, which could be a beep/tone or a single spoken message, “You’re up!” A PHOSITA would recognize this embodiment as resembling the pagers commonly encountered in restaurants when there is a wait for a table and you’re invited to visit the bar in the meanwhile.

149. It is my opinion that claim 19 would not have been obvious over the combination of Sim and Doi, not only because claim 19 depends from a patentable base claim, but also because of the limitations recited within claim 19.

150. Claim 19 requires that the data about a first attraction that has excessive demand causes the software to be less likely to select said first attraction.

151. As Sim relies on users to select their attractions¹⁹ and allows collection of preferred sequences and/or ride times²⁰, those user inputs are available to bias Sim's offered "means of calculating the actual time and sequence of attendance" (Sim, 34:22-23) and is entirely consistent with Sim's teaching that "[t]his calculation can be in response to user preferences, on the overall demand in the system and any priority attached to the particular user..." (Sim, 34:24-27). Accordingly, since Sim's patron has already selected the attractions, there is no plausible way that Sim's queue manager makes their selection less likely.

152. Similarly, in Petitioner's citation of Doi, the first attraction has *already* been selected by Doi's customers: Doi's "navigation planner 42 makes a plan to

¹⁹ "Registration for queue by users can be received either automatically by the removal of a prompter from a dispenser for a single ride or for multiple rides the user will be required to enter manually the required rides and ride sequence following the instructions on the display as shown in Figure 8." (Sim, 17:22-27 (emphasis added)).

²⁰ "[T]he queues (or rides) which the user has registered for will be sent to the controlling computer 3 together with the preferred times and preferred sequence of rides to enable the controlling computer to determine the optimum sequence and time of rides." (Sim, 15:29-34).

recommend other attractions *to some for customer queuing at the attraction A*” (Doi 9:63-65 (emphasis added)), accordingly the likelihood of selection is unity, since Doi is only dealing with customers already queued – the likelihood of attraction selection couldn’t possibly be higher. This does not meet the claims language of “said software is less likely to select said first attraction in step d”).

153. Accordingly, because neither Sim or Doi alone or in combination can reduce the likelihood of an attraction having excessive demand being selected, they cannot render claim 19 obvious.

154. It is my opinion that claim 20 would not have been obvious over the combination of Sim and Doi, not only because claim 20 depends from a patentable base claim, but also because of the limitations recited within claim 20.

155. Applicants do not dispute that a storage for accumulation of reservations for an attraction is well-known. However, to track specifically the portion of the demand for an attraction that is produced by the claimed itinerary generation process (the “directed demand”) can provide valuable feedback for control of the itinerary generating process itself, and other integrated reservation making systems, *e.g.*, were there an allocated capacity for the first attraction and said first attraction is excluded from selection on the basis of the directed demand exceeding the allocated capacity (see *e.g.*, ‘983 patent, 8:28-31).

156. Petitioner's assertion notwithstanding "Sim is [not] tracking "directed demand," *e.g.*, the number of parties its system is directing to each attraction. (Houh Decl., ¶104)" because Sim has no "directed demand²¹ ." (Petition p.36) Sim accepts the parties' attraction selections and does not change their number. Given the patron demand, Sim does have an opportunity to manage it, shift it to different times, but the total demand is unaltered.

157. Doi also discloses no tracking of directed demand, as defined, since Doi creates no itinerary. Doi's recommendations, accepted or no, are disclosed to be real-time and immediate, not representing a "sequence of events." ('983 Patent, 7:36)

158. It is my opinion that claim 22 would not have been obvious over the combination of Sim and Doi, not only because claim 22 depends from a patentable base claim, but also because of the limitations recited within claim 22.

159. Both Sim and Doi rely on their users to select attractions. Since users are making the selections, there is no software to apply a perturbation to a desirability of a first attraction to produce a different result (*see* '983 patent, 24:16-25:15 discussed the perturbed directed demand in FIG. 13) of the software selection of the second set (which the itinerary comprises).

²¹ As defined in the specification, "'Directed demand' is the number of visitors directed to an attraction by the itineraries produced by this invention." ('983 patent, 8:6-8).

160. Both Sim and Doi rely on other methods to manage their queues: Sim can reorder sequence of attractions and/or reorder where people are in a virtual queue. For example, Petitioner offers that, “when the number of parties being directed to an attraction is low, Sim can mitigate this by closing the attraction” (Petition, p.36 § 15) however, this is not perturbing the desirability of the now-closing attraction – Sim sees the same number of people are going to ride it, they’re now just going to ride it at a different time, before it closes. Petitioner shows Doi using more of a “carrot” approach by adjusting the price of an attraction, which may coax Doi’s customer to decide the lower price is sufficiently attractive. (Petition, p.37). As with Doi marketing that attraction D has a shorter line, these appeals just drive home that there is no software selecting what attraction comes next, it’s up to Doi’s customer.

161. Ultimately, no combination of these teaching results in the perturbation to a desirability that results in a different software-based selection of attractions. Having no “software that selects” there is no “directed demand”. Instead, Sim makes due shifting the demand in time, without changing the demand. Doi attempts to change the demand by altering an attraction’s price. Neither of these represents the capability of perturbing directed demand.

162. It is my opinion that claim 23 would not have been obvious over the combination of Sim and Doi, not only because claim 23 depends from a patentable base claim, but also because of the limitations recited within claim 23.

163. Any messages mentioned in Sim are not processed in conjunction with an itinerary. Dr. Houh makes use of equivocation where saying “ ‘Sim’s controlling computer 3’ enables the ‘transmission of *messages* to the portable module 1’ ” (Houh Decl., ¶110 (emphasis in original)): Given that *all* commands issued to Sim’s portable module/prompter are *messages*, because it’s the basis of the communication technology Sim describes by saying, “Conveniently, the method of communication between the portable modules and the queue manager is by way of radio paging *messages* which can be received and displayed by the portable modules.” (Sim, 3:28-31 (emphasis added)).

164. Sim’s portable module/prompter operates like a pager, able to efficiently address large numbers of devices with only modest (several minutes of) latency by employing the uni-directional POCSAG²² protocol with Sim’s efficient and well-described encoding, to allow “activation of pre-stored messages” (Sim, pp.25-27). On the same page, Sim teaches that “Prompters store and display two messages, one each for the next and subsequent attraction.”

²² The POCSAG paging code Sim employs, “Post Office Coding Standardisation Advisory Group” is still the familiar name of the protocol that was standardized internationally in 1986 as ITU-R Recommendation M.584.

165. Dr. Houh recites some elements of claim 23 then offers the example that “Sim’s system can issue ‘*zone specific*’ messages promoting other utilized attractions, other promotional messages and competitions.’ (Sim, 38:8-10; *see also* Id. at 15:1-3, 18:16-28). (Houh Decl., ¶110 (emphasis in original)). The first passage that Dr. Houh cites there as “*see also*” reads, “The controlling computer 3 is linked to transmitter 4 by a communication line 5 to allow the transmission of messages to the portable module 1.” (Sim, 15:1-3). This is more of the equivocation noted above, and not supportive of the obviousness assertion, as all pager-based commands must be treated as pager messages.

166. The first portion of the second passage cited there as “*see also*” reads, “The controlling computer 3 will, after registration, transmit activation codes to initiate the display of messages to advise the user when they should join a physical line, or to display other *standard* messages. A suite of *standard* messages, each enabled by its activation code, is stored in read-only memory (ROM) in the prompter to increase the number of messages that can be transmitted in the required update time.” (Sim, 18:16-24 (emphasis added)). A PHOSITA would easily recognize these “*standard* messages” to be those seen in Table 1 (Sim, p 26) and Table 2 (Sim p. 27). Use of Table 2 is triggered when bit 15 of the POCSAG codeword equals zero. This mode has the prompter in its two-attraction display mode, and then bit 16 determines whether the rest of the codeword encodes either a first attraction (the

party's next attraction) to overwrite the first line (see Sim Fig. 3), or a second attraction (the subsequent attraction after the one on the first line) to overwrite the second line of the prompter. The remaining bits of these codewords specify the "Attendance time", the "Number of Places" (*i.e.*, how many riders), and the "Attraction", *i.e.*, an index in the range 0-15, where 0 corresponds to "Blank" and the other index values 1-15 correspond to one of (up to) 15 predetermined attraction names.

167. The second portion of that second passage concludes, "Other activation codes can produce specific modes of operation in the prompter. One particular code will enable a specific prompter to revert to normal pager messaging mode for applications where this option is included." (Sim, 18:24-28). This would lead a PHOSITA to look back to the bottom of Table 1, (Sim, p.26) to the "Pager Mode" documented there, which is engaged *when bit 15 of the codeword equals 1* and bit 16 of the codeword equals 0 and results in "Pager Mode", where the remaining bits 17-31 encode two 7-bit ASCII characters at a time and a series of like, successive codewords would accumulate an arbitrary text message, two characters at a time.

168. Critically, Sim's bit 15 = 1 "Pager Mode" does not support Sim's bit 15 = 0 "Normal Mode" wherein bit 16 controls addressing the first line for the next attraction or the second line for the subsequent attraction. As such, a PHOSITA could not help but conclude that, when Sim's "Pager Mode" for arbitrary messages

(or even if other bit 15 = 1 predetermined messages from Table 1 are used), the first and second lines of the prompter are no longer separately addressed, display of the itinerary is erased so that the Pager Mode message can be displayed, and, based on Sim's own estimates, it could take up to three minutes for the display to refresh. (Sim p. 27)

169. It is my opinion that Sim can deliver "zone specific" messages as described as note by Dr. Houh, however transmission of such messages, as taught by Sim, disable presentation of the itinerary in order to present the recommendation. Accordingly, Sim is unable to support at least two of the limitations recited in Claim 23 of "said itinerary further comprising a second set of messages" which is shown in and "each of said second set of messages is provided to said party in conjunction with said itinerary."

B. Ground 2, Claims 4, 18, and 21 Would Not Have Been Obvious Over Sim (As Modified by Doi) In View Of Waytena.

170. The Board in its Institution Decision states:

At this stage, the parties' disputes regarding claim 4 are substantively the same as the parties' disputes regarding independent claims 1 and 3. Pet. 41–48; Prelim. Resp. 41–42. Accordingly, our discussion of those disputes in Section III.G above also applies to the parties' disputes regarding dependent claim 4. Paper 7, 4.

171. It is my opinion that, all dependent claims are necessarily valid in light of Petitioner's failure to prove claim 3 invalid, since dependent claims are

nonobvious under 35 U.S.C.S. § 103 if the independent claims from which they depend are nonobvious.

172. It is my opinion that claim 4 would not have been obvious over the combination of Sim, Doi and Waytena, not only because claim 4 depends from a patentable base claim, but also because of the additional limitations recited within claim 4.

173. Petitioner again insists that “Sim in view of Doi teaches a system that *selects an itinerary* of attractions” (Petition, p.41 (emphasis added)). But Petitioner is wrong. The characterization by Dr. Houh’s testimony cited by Petitioner for support here is less inaccurate: “Sim in view of Doi teaches a system that *recommends an itinerary* of attractions and attraction times to a party” (Houg Decl., ¶117), but is also wrong. Ultimately, Sim in view of Doi *recommends attractions*, which a party may choose to adopt, and the party’s selections are fashioned into an itinerary. Both Sim and Doi, whether alone or in combination, teach that attractions are selected by the user.

174. Petitioner then admits that “Waytena simply adds that additional party information, such as preferred ride types, can also be used to determine which rides to **suggest to a party**” (Petition, p.41 (emphasis added)). Dr. Houh supports this where he says that “[a] PHOSITA would have been motivated to include such preference information and recommended list of ‘matching’ attractions in the system

of Sim. Doing so would allow, for example, Sim to maximize ride/show utilization and raise spending on an affinity to attractions in the park by **suggesting rides to parties** that they would enjoy but may not know about.” (Houh Decl., ¶122).

175. Moreover, there is no mention in Doi of user preferences. Doi selects an attraction and then identifies a class of parties, but with no evidence that the selection of parties is based on preferences.

176. Accordingly, alone or in combination, the proposed combination of references fails to make obvious using preferences collected from a party to automatically select at least one attraction to go into an itinerary for the party.

177. Contrary to the characterizations made by Petitioner (Petition, p.44), nothing in Sim suggests an ability to select alternative rides as part of Sim’s re-allocation process nor that Waytena’s preferred attractions would be helpful during *reallocation*. The preferences in Waytena are exercised before attractions are selected, to winnow the choices available. Once Waytena’s or Sim’s customer have selected their attractions, reservations can be made.

178. As Dr. Houh testifies: “Sim discloses that its ‘queue management’ system should maximize ride/show utilization, ease park management issues, raise spending on secondary attractions and most importantly, greatly increase customer satisfaction. Waytena’s reservation system is disclosed as achieving these same goals, and provides a similar solution of scheduling attractions for a visitor based on

both party information and data about operating status and crowding of attractions.”

(Houh Decl., ¶121)

179. The Board in its Institution Decision states:

Patent Owner’s argument appears to be against Waytena individually whereas Petitioner relies on the combination of Sim, Doi, and Waytena for teaching this claim.

Thus, after considering the parties’ arguments and evidence as presented, we determine that at this stage, Petitioner has demonstrated a reasonable likelihood of establishing that the combination of Sim, Doi, and Waytena teaches claim 18.

Paper 7, 49.

180. It is my opinion that claim 18 would not have been obvious over the combination of Sim, Doi and Waytena, not only because claim 18 depends from a patentable base claim, but also because of the additional limitations recited within claim 18.

181. As recited by Petitioner, Waytena teaches that parties use their PCDs “to transmit reservation requests to the attraction computers. If the computer determines the attraction is unavailable, it responds that ‘the attraction is **unavailable**.’ If the attraction is unavailable, it will not be included or available for the party’s itinerary.” (Petition, p.45 (emphasis in original)). But Waytena would not have taught that such an indication can prevent the patron from wasting time and being disappointed by attempting at least one reservation request before being

informed that the attraction is not available. *See* Waytena, Figure 7 (showing a manual request received at 702, necessarily in advance of rejection at 722). Claim 18 of the '983 patent provides that the software operating in step d) performs the selection of attractions for the itinerary informed by the reservation computer whether an attraction is available.

182. Moreover, while having a reservation system, Doi is silent about understanding that an attraction is not available for a reservation, for whatever reason. With respect to empty theater seats when showtime is imminent, Doi teaches identifying a class of customers to which invitations are sent, and if the customer accepts the invitation, the reservation is made and the customer is guided to their seats. That functionality isn't useful in the context of building an itinerary... highlighting, to some degree, the difference between Sim/Waytena and Doi – when a show is about to start with inadequate reservations, Doi scrambles to find folks to fill the seats. But if a patron wanted a series of recommendations for something to do, being triggered by under/overcrowding, Doi doesn't really have a basis for operation (outside of hindsight reasoning).

183. In combination with either Sim or Waytena, it is a user's selection that is entered on the list of reservations, becoming a part of an itinerary.

184. It is my opinion that claim 21 would not have been obvious over the combination of Sim, Doi and Waytena, not only because claim 21 depends from a patentable base claim, but also because of the limitations recited within claim 21.

185. A PHOSITA would not have been motivated to combine the teachings of Waytena with Sim and Doi in the manner suggested by Petitioner and its expert, and reasonably expect success. Indeed, a PHOSITA would have been baffled by Petitioner's proposal to "include Waytena's 'reservation computer' in Sim (as modified by Doi)" (Petition, p.46) for several reasons expressed below.

186. First, Waytena does not mention a "reservation computer." "Reservation computer" is an element of claim 21 of the '983 patent.

187. Second, because Sim already achieves what Petitioner's expert asserts is the motivation to add Waytena. Dr. Houh states that "[i]t would have been obvious to modify Sim to include Waytena's teachings of having attraction reservation ***computers that can make and maintain reservations for attractions.*** Sim and Waytena are in the same field and disclose similar systems, and a PHOSITA would have been motivated to include Waytena's attraction computers for making reservations in Sim to ensure that the ***current operating status*** and ***crowd conditions*** of each attraction are properly taken into account when reservations are requested." (Houh Decl., ¶132 (emphasis added)).

188. But these elements and functions of Waytena, alleged to motivate a PHOSITA to make the combination, are already present in Sim (in view of Doi) without any contribution from Waytena. In particular, Sim has a host computer 3, under many names.²³ “The Queue Manager is the controlling software program in the host computer.” (Sim, 34:15-16). The “queue manager consists of a number of modules with clearly defined interfaces. Reliability through redundancy is achieved by having a duplicate computer system which operates the same software and is input with the same dat[a].” (Sim, 18:29-33). “The queue manager is adapted to register the person... in at least one queue sequence” (Sim, 7:26-28). “Thus, having registered in the ‘virtual’ queue for a number of rides, the user is free to utilize time which would normally be taken up by queuing” (Sim, 16:10-12) with the “queue manager for ***maintaining the queue*** sequence for the or each queue” (Sim 2:26-27).

189. Sim ensures that ***crowd conditions*** are taken into account when reservations are made. Sim “can provide information on the whereabouts of the users of the system which can, in some applications, provide very useful management information, and can give the ability to influence user’ movements, that can lead to economic advantages. For example, in Sim “[i]t may be a policy that

²³ Sim has multiple synonyms for the main computer: “host computer 3” (Sim Fig. 2, Fig. 9, 28:13-14), “controlling computer 3” (Sim 14:35 and 15:1 in reference to FIG. 1; 16:18); “central computer 3” (Sim, 15:10 in reference to FIG. 2, 16:21 in reference to FIG. 1).

every user gets a minimum number of rides (depending on the time [of] registration). If the weather meant that a park was lightly loaded in the morning but full in the afternoon, the morning attendees may have had a large number of rides. These morning attendees could then be given a reduced number of rides in the afternoon to allow an increased number of rides to the late attendee.” (Sim, 24:12-20).

190. Sim ensures that **current operating status** is taken into account when reservations are made. For example, Sim “allows for resources [attractions] to be operated for only part of the time by making the appropriate queues physically available only at the corresponding times... When the park was not fully busy, staff could be shared between rides by only opening them part time without causing customer complaints since their access times are controlled.” (Sim, 35:6-9).

191. Additionally, because it is not always sufficient to take into account the current operating status and crowd conditions *at the time reservations are made*, Sim offers, “If ride failure occurs it may be fairer to reallocate all the queues.” (Sim, 24:21-22).

C. Ground 3, Claims 1, 3-5, 8, 10, 12-14, 16-21, and 23-25 Would Not Have Been Obvious Over Waytena.

192. The Board in its Institution Decision states:

After considering the parties’ arguments and evidence, and because Waytena was previously provided and we discern no error on the part of the

Examiner, Petitioner has not demonstrated a reasonable likelihood of prevailing on its assertion that claims 1, 3–5, 8, 10, 12–14, 16–21, and 23–25 would have been obvious over Waytena to support institution under Ground 3.

Paper 7, 52.

193. I agree with the Board’s conclusion. It is my opinion that Petitioner’s and its expert’s assertions that claim 1 would have been obvious over Waytena are wrong for the reasons expressed below.

194. It is my opinion that Waytena, under the proper construction, would not have taught at least the following limitations from claim 1: “a computer having software that selects said second set of attractions from said first set of attractions, said second set of attractions consisting of at least some of said first set of attractions for which said data substantially matches with said information” and “whereby said itinerary is customized for said party.”

195. As explained above, claim 1, under the proper construction, does not encompass a manual selection of attractions for an itinerary by the user. Rather, claim 1 requires selection by the software on the computer. Because Waytena teaches the manual selection of attractions, it could not possibly have taught the limitations of claim 1 quoted above to a person having ordinary skill in the art (PHOSITA) at the time of the invention of the ‘983 patent.

196. Petitioner asserts that “the PCDs will present a ‘list of attractions that match the particular preferences of the members of the patron’s group.’ Patrons can then make reservations for those attractions using their PCDs, and the PCDs will display a list of schedule attractions along with the times to visit them.” (Petition, p.50).²⁴ Petitioner also relies on Waytena’s FIG. 5B. Petitioner also asserts that “Waytena discloses claim 1[b] (Houh Decl., ¶¶140-142.)” (Petition, p.53).²⁵ Petitioner also asserts that “Waytena renders obvious 1[c] (Houh Decl., ¶¶143-151).” (Petition, p.54).

197. It is my opinion that Waytena discloses selection by a patron, not by software on a computer, as required by claim 1. In Waytena’s FIG. 5B (reproduced below with annotations), ATTRACTIONS list 541 contains three attractions (WATER FLUME, THE RAT, and TIME TRAVEL²⁶). Attractions previously selected by the user and then reserved are shown in the “list 545 of previously-made reservations” and appear under the heading CURRENT RESERVATIONS. Waytena states that “[a] patron may request a reservation for a particular attraction as follows. The patron selects one of the attractions in list 541 . . .” (Waytena, 14:36-37). A PHOSITA would see from FIG. 5B that one of the attractions in list 541, the

²⁴ Emphasis and citations omitted throughout unless indicated otherwise.

²⁵ The citation to Houh’s declaration is wrong because the statement in Houh’s declaration states that “Waytena discloses claim 1[c]” (Houh Decl. ¶140), not claim 1[b].

²⁶ These are three *distinct* attractions as shown by Waytena’s FIG. 2B.

third one, TIME TRAVEL, is highlighted by a rectangle (annotated in yellow), representing the user's current selection:

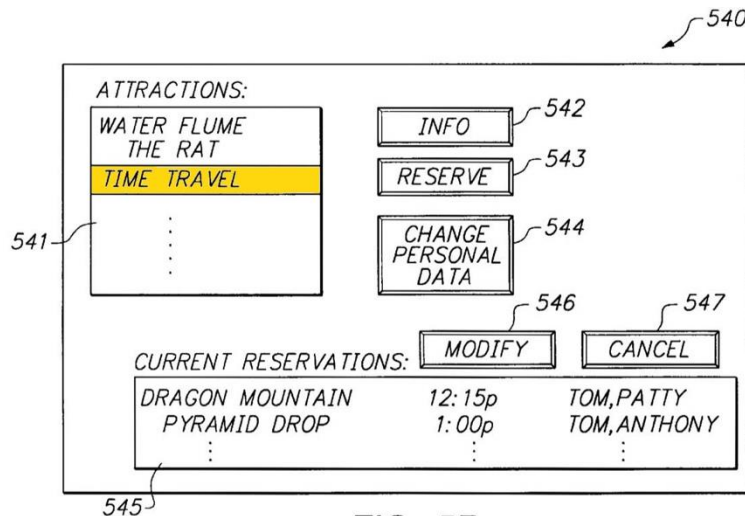


FIG. 5B

198. It is my opinion that Waytena also states that “[c]licking on button 543 causes PCD 102 to enter state 503 for requesting reservations. FIG. 5C shows a sample display screen 560 for requesting a reservation for a selected attraction.” (Waytena, 14:41-44). From this, the PHOSITA would have understood that a press of the RESERVE button 543 in FIG. 5B would request a reservation for the currently selected TIME TRAVEL attraction, and indeed this is what is shown by FIG. 5C:

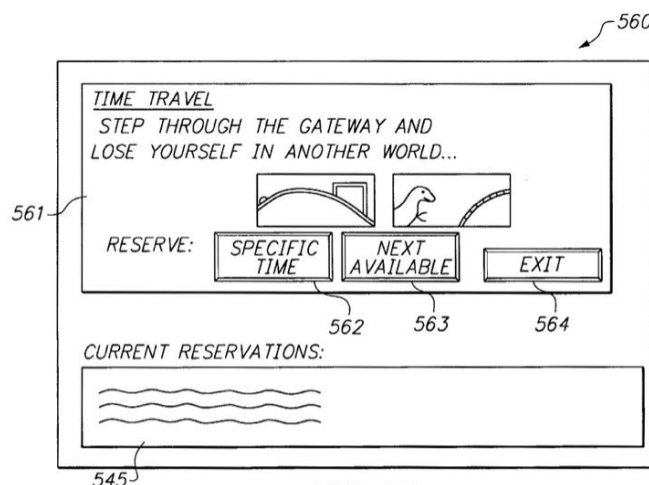


FIG. 5C

199. It is my opinion that, upon seeing in Waytena’s FIG. 5B showing the third attraction (TIME TRAVEL) in list 541 being currently selected and subsequently in FIG. 5C being considered as the subject of a reservation request, a PHOSITA would have understood that a user is neither required to make reservations for every attraction in list 541 (a user selects which ones), nor is a user constrained to select and reserve attractions in the sequence shown in list 541. This is entirely consistent with Waytena’s desire to address the “inability of patrons to communicate their intention to attend particular attractions, and in effect, request a reservation for an attraction” (Waytena, 1:48-50) by “allow[ing] patrons to...make reservations for certain ones of these [attractions].” (*Id.* at 2:31-35).

200. It is my opinion that Waytena identifies latencies in communication protocols of the era as being “apparent to those skilled in the art” (*Id.* at 9:7-10) and expresses sensitivity to these and the interaction of variously specified timeout periods (see *Id.* at 13:11-19, 17:10-13, 17:51-54, 17:59-65, 18:8-11, 20:65-21:3, 21:29-31, 21:35-40).

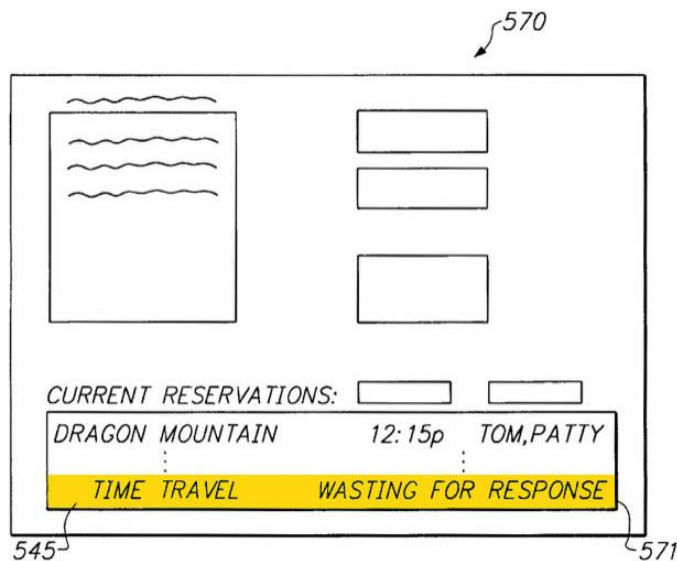


FIG. 5D

201. It is my opinion that the result of this concern is illustrated in FIG. 5D, where reservations list 545 shows an entry for the TIME TRAVEL attraction listed with the message 571 “WA[I]TING FOR RESPONSE”, *i.e.*, “an indication that PCD 102 is waiting for a response regarding the request.” (*Id.* at 16:54-55).

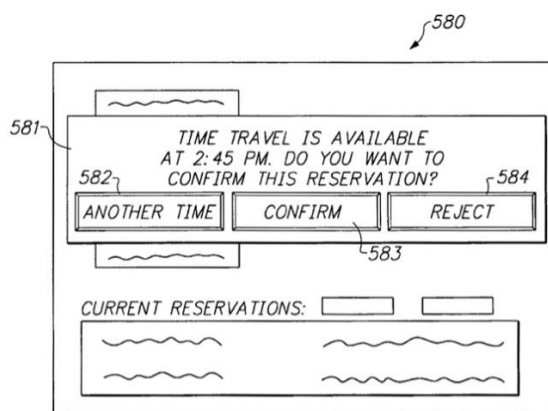


FIG. 5E

202. It is my opinion that on screen 560 of FIG. 5C, whether the patron had chosen to request a specific reservation time with button 562 or ask for the next available reservation time with button 563 (which is equivalent to requesting a reservation for the “current time” (*Id.* at 23:4-6)), if the attraction computer comes

back with a proposed reservation, confirmation screen FIG. 5E is presented to the patron. If the proposed time works, the patron can confirm with button 583. If “Another Time” button 582” is pressed, “PCD 102 prompts patron to enter a new requested time.” (*Id.* at 17:33-34)

203. It is my opinion that Petitioner and its expert fail to address several limitations of claims 1 and 3. Waytena was already distinguished from the claims of the ‘983 patent during prosecution, as discussed above. Petitioner recounts one of the arguments Applicants made during prosecution, saying “Waytena requires a party to be involved in the ‘selection’ of attractions, whereas in the claimed invention the software selects the attractions without the party’s involvement,” (Petition, p.55) and again mischaracterizes the language of the claims in saying that “[o]n their face the claims only say that the computer ‘selects’ attractions; they do not recite that the computer must provide a complete itinerary of attractions and time to visit without party intervention.” (Petition, p.55, n.14). But this is plainly not so because independent claims 1 and 3 recite “said itinerary comprising a second set of attractions” and “software that selects said second set of attractions.”²⁷

204. It is my opinion that, as explained above, it is not proper to use hindsight to combine references or elements of references to reconstruct the

²⁷ Recitation of “scheduled time” appears in dependent claims 8-10 of the ‘983 patent.

invention using the claims as a guide. But that is exactly what Petitioner and its expert have done. In constructing their argument regarding Waytena rendering obvious claim limitation 1[c], Petitioner points to Waytena's ability to filter the list of attractions, based on categories the user may have indicated (zero or more of the categories thrill rides, educational, shows, and kiddie rides), referencing Waytena's FIG. 5A 522 of attraction preferences. Then, Petitioner promotes that this filtering function of Waytena, without intervention by the user, achieves the equivalent of what the user does when selecting those attractions for an itinerary.

205. It is my opinion that Petitioner and Dr. Houh have engaged in an exercise of impermissible hindsight analysis – using the claims of the '983 patent as a map for cherry-picking phrases wherever they can be found and piecing them together to reconstruct the invention of the '983 patent. In essence, Petitioner and Dr. Houh are asserting that Waytena was unable to recognize that the patron is completely superfluous to Waytena's invention and performs no useful function, stating that “[t]he party would get the same attractions at the same times with this approach as if they made individual selections and followed the process of Figures 5B-5E.” (Petition, p.57, Houh Decl., ¶151). Arguing for the obviousness of his own proposed mechanism, Dr. Houh states that “it would have been obvious to simplify what is now a multi-step process in Waytena, *where a party can individually choose and reserve among computer-selected (or recommended) attractions*, into an easy

one-step process *that gives the party the same resulting schedule of reserved attractions*. . . Waytena’s PCD presents a party with a list of selected matching attractions (such as list 541 in Fig. 5B). If the party wants to use this list of matching attractions as her itinerary, she must click on each attraction, such as ‘Time Travel,’ and start the reservation process by selecting ‘Reserve 543.’” (Houh Decl., ¶149, emphasis added). When the reservation screen of FIG. 5C comes up, “NEXT AVAILABLE 563” is pressed (Houh Decl., ¶150), and when a proposed reservation is returned in response on the screen of FIG. 5E, “the party can ‘Confirm’ the reservation: This process is then repeated for each attraction in the list 541 in Fig. 5B.” (*Id.*)

206. It is my opinion that Petitioner and Dr. Houh proffer a hypothetical user interface (reproduced below), purportedly based on Waytena’s FIG. 5B, in which, if true, entries in ATTRACTIONS list 541 have been augmented with proposed reservation times that a user is able to reserve, *en masse*, using what had been RESERVE button 543, and Petitioner makes the claim that a “PHOSITA would have recognized Waytena could readily do this” (Petition, p.56) “and that a party would get the *same* attractions at the *same* times with this approach as if they made the individual selections and followed the process of Figures 5B-5E.” (Petition, p.57)

Selected Matching Attractions and Times

ATTRACTIONS:	
DRAGON MOUNTAIN	12:15p
PYRAMID DROP	1:00p
WATER FLUME	1:30p
THE RAT	2:00p
TIME TRAVEL	2:45p
:	
:	
:	

207. It is my opinion that Petitioner and its expert are wrong. Petitioner's proposed rearrangement of Waytena's mechanisms to achieve Petitioner's hypothetical user interface would not have been obvious to a PHOSITA at the time of the invention, would not have been seen by a PHOSITA to achieve what Waytena intends, would not have achieved the same result as Petitioner asserts, and based on Waytena's teachings, would not have been expected to function usably.

208. First, it is my opinion that Waytena considers that when requesting a reservation, which attractions are selected and the order in which they are selected, *matters to the party*. Waytena wants to provide the "[a]bility of patrons to communicate their intention to attend particular attractions" (Waytena, 1:48-49) and "make reservations for certain ones of these" (*Id.* at 2:35). It matters to the party because which attractions are selected and the order of their selection affects which reservations they can get. A PHOSITA would have recognized, from Waytena's teachings, that which attractions are selected and the order in which those attractions are selected, matters. As a reasonable example story, constructed to explain the examples presented in Waytena's figures 5B-5E, the patrons selected PYRAMID

DROP first, because they perceived it as the newest ride and thus the one most likely to run out of reservations. Perhaps DRAGON MOUNTAIN was their second choice, but even so they scored an earlier reservation. These are shown in list 545 of FIG. 5B. TIME TRAVEL, appearing in the third position among the remaining matching attractions in list 541, is a surprise with the reservation coming so much later. Perhaps, as a longtime favorite, demand for TIME TRAVEL still outpaces that for the newer PYRAMID DROP (or perhaps there was an issue earlier today and availability of the TIME TRAVEL attraction has been compromised until later in the day). Perhaps FIG. 5B shows WATER FLUME as having no associated reservation, because even though it is a thrill ride, the patron has no intention of riding the WATER FLUME.

209. Second, it is my opinion that when requesting a reservation, which attractions are selected and the order in which they are selected, *matters to the resulting schedule of reservations*. It matters because, when reservations are being made consecutively, they are being made at different times. If “Next Available 563” is chosen, as proposed by Petitioner, the time requested (timeReq) (Waytana, 23:5-6) defaults to the current time when the request is being made. Further, it matters because PCD 102 can “describ[e] other reservations previously made by the patron...in request message data structure 420...[and if] other reservations previously made by the patron conflict with the time specified by timeReq...,

timeReq is adjusted to avoid the conflict.” (*Id.* at 23:7-13). Waytena expects that the first attraction that a party selects for which they obtain a reservation, occupies a block of time which subsequent reservation requests will not be able to violate: “If PCD 102 has transmitted information describing other reservations previously made by the patron, processor 209 checks 729 the timing of these and other reservations to determine whether he or she is available at the time specified by timeReq, and may optionally check whether the patron will have sufficient time to reach any previously-made reservations that occur after the new reservation (based on distances between attractions).” (*Id.* at 24:28-35). Thus, a PHOSITA would have understood from Waytena’s teachings that which attractions are selected and the order in which attractions are selected affects the resulting schedule of reservations.

210. Third, it is my opinion that Dr. Houh states (from the passage of ¶149 quoted above), that under Waytena, “a party can individually choose and reserve among computer selected (or recommended) attractions” and that this is an “easy one-step process that gives the party the same resulting schedule of reserved attractions.” In the example of FIG. 5B, already having reservations for those attractions shown in list 545, the patron selects the *third* attraction in list 541. Why the *third*? A PHOSITA would have been left with no rationale as to why a party might choose the *third* entry in a list instead of the first or second. Meanwhile the Petitioner asserts that it’s obvious how one can obtain identical results with the

proposed hypothetical user interface, but the description of its operation offers no mechanism for ordering²⁸, recognized as mattering to both the party and the resulting schedule as discussed above, leaving a PHOSITA with no reasonable expectation of success with Petitioner’s proposed adaptation of Waytena.

211. Fourth, it is my opinion that a PHOSITA challenged to achieve the *look* of Petitioner’s hypothetical interface, would have recognized that a different improvement would be to offer the list of attractions, each entry in the attractions list having an *independently determined* reservation time, essentially saying to Waytena’s patron, “Here are the earliest reservation times that you could get, right now, for any *one* of these attractions. Which *one* do you want?” This would not be counter to Waytena’s goals, as the patron is making a selection, communicating an intent to ride an attraction. Too, this represents a meaningful improvement in the user interface by omitting manual steps from the process: The patron selects consecutive attractions, in an order of their own choosing, each associated with an already-known reservation time, then presses the RESERVE button that accepts the proposed reservation for that attraction and transfers the proposed reservation to a CURRENT RESERVATIONS list akin to 545 (not shown in the hypothetical interface). Subsequently, the ATTRACTIONS list will consist of one fewer

²⁸ Other than the mechanisms for ordering discussed, and exemplary embodiments presented with substantial detail, in the ‘983 patent (*e.g.*, ‘983 7:24-42, 28:17-45; FIG. 14:1450).

attractions and the proposed reservation times would update because, with the new reservation, the times at which other attractions are accessible, giving deference to the newly increased collection of CURRENT RESERVATIONS, would leave fewer time slots open and also, the current time will have advanced.

212. Fifth, it is my opinion that while the proposal to present a list of available reservation times makes for an attractive presentation, as depicted in Petitioner's hypothetical user interface, whether functioning as described by Petitioner or as discussed immediately above, a PHOSITA would have had reasonable doubts as to its feasibility. Waytena's concern over the protocol latencies and timeout durations that gave rise to the message 571 "WAITING FOR RESPONSE" in FIG. 5D would have left a PHOSITA wondering whether the hypothetical display would appear with each attraction labeled as "WAITING FOR RESPONSE" rather than showing a proposed reservation time for any reasonable fraction of the attractions presented. A PHOSITA would understand that rather than *merely* a reprise of the protocol latency and timeout issues that concerned Waytena (see *supra* in conjunction with the discussion immediately above FIG. 5D), there would be an *amplification* of those issues considering that each PCD 102 that, under Waytena would. at most, consider and present *one* proposed reservation at a time, could now, for the hypothetical display, each be considering a proposed reservation for each attraction available: Not just the five illustrated in Petitioner's hypothetical

interface, but dozens, even many dozens, up to however many attractions are in the theme park. Further, the PHOSITA would realize, the complexity is greater still: Each PCD 102 presenting the hypothetical display is holding that number of proposed reservations, having seized a resource and blocking other users from accessing those proposed reservations, which in turn increases concern for timeout issues causing the “WAITING FOR RESPONSE”.²⁹

213. Sixth, it is my opinion that under Petitioner’s proposed allocation scheme, it stands to reason that Waytena’s teachings regarding the probability of a party keeping a reservation is significantly altered by the modification that the reservation is one that a party did not *individually* request. Accordingly, a PHOSITA would reasonably doubt whether the overbooking calculations Waytena promotes would still be valid (Waytena, 7:34-38, 10:43-49; 20:51-64, 24:51-25:4) and would be unclear how to correct them: A party having minimum investment in a reservation for an attraction they did not pick themselves may have little or highly variable propensity to keep that reservation. This could lead to numbers of reservations far higher than Waytena projects going unused. This is further complicated by the fact that the probability of a confirmation is radically altered, given that under the

²⁹ It is my opinion that the ‘983 independent claims need not be subject to the issues of protocol latencies and timeouts as the independent claims do not require reservations to operate, even if interacting with a reservation system such as Waytena.

operation proposed by Dr. Houh, the itinerary is offered all or nothing (necessitated by the compulsion to use Waytena's methods but with manual interventions excised). Further, while the large number of proposed reservations are held while under review by the user looking at the hypothetical interface, the lack of the commitment step has nullified optimizations that depended on Waytena's statistics regarding a guest's likelihood of committing to a proposed reservation time.

214. Seventh, it is my opinion that under Petitioner's proposed scheme, a PHOSITA would have had no basis for ordering the attractions as discussed above. It would have been apparent to a PHOSITA that, with a filter based on Waytena's four example attraction preferences (thrill rides, educational, shows, kiddie rides (Waytena, FIG. 5A 522)), selecting any one of those preferences in isolation might return for the sake of argument, one quarter of the attractions in a theme park. If those categories were to be mutually exclusive, then selecting any two categories might combine to list half of the attractions of the theme park. Such attraction counts would be far more than the few attractions shown explicitly in Waytena's figures, *e.g.*, FIG. 5B, where ellipses appear within ATTRACTIONS list 541 and CURRENT RESERVATIONS lists 545 to represent space for entries that could be presented but are not currently, or that are present, but not necessary to show to meet the didactic function of the figure and when left out make the figure clearer. In any case, Waytena describes these as scrollable and/or pageable lists (*Id.* at 14:14-15,

18-19), suggesting these lists can be significantly larger than the space given in the screens depicted. The availability of attractions and proposed reservations could be so numerous as to exceed the number of attractions a patron could visit in a day, in which case, the concern over which attractions are to be selected and the order in which they are selected in is of even greater concern, causing the PHOSITA to further doubt the viability of Petitioner's hypothetical interface and its underlying mechanisms. Clearly, where attractions are going to be dropped from consideration because there is not enough time in the day to attend them all, a patron is going to make careful choices, choices not reproducible by the mechanisms proposed by Waytena and recombined in the manner proposed by Dr. Houh.

215. Eighth, it is my opinion that Petitioner's hypothetical modification of Waytena's "FIG. 5B...screen for requesting reservations" (*Id.* at 4:38) "as modified and annotated" (Petition, p.56) is a *modern* construction, it does not exist in the prior art, and would not have been obvious from the prior art. It presents a simple picture that would not have been achievable by Waytena.

216. It is my opinion that what Waytena teaches is that from initiation of a reservation transaction by pressing "RESERVE" button 543 on FIG. 5B, a proposed reservation time is not available for display in FIG. 5C with the "NEXT AVAILABLE" button 563, not available for display as a current reservation in list 545 of FIG. 5D, and not available until the presentation of a proposed reserved time

is possible as of FIG. 5E as message 581, when presented for acceptance by the patron.

217. It is my opinion that Waytena teaches this is because of “known buffering and handshaking protocols” (Waytena, 9:8-9), and other patrons being “given a fixed period of time in which to confirm or reject the reservation” (*Id.* at 13:2-3) where “reservation times may be ‘overbooked’ by attraction computer 101 to the extent permitted by the determined probabilities of confirmation for the patrons requesting the attraction.” (*Id.* at 20:57-60). As a result, “PCD 102 then awaits an acknowledgment from attraction computer 101 indicating that the request is being processed, and displays a message to inform the patron that a response is being processed.” (*Id.* at 16:45-48) In FIG. 5D, “[l]ist 545 now includes item 571 showing the reservation request with an indication that PCD 102 is waiting for a response regarding the request.” (*Id.* at 16:54-55)

218. Ninth, it is my opinion that while Petitioner’s hypothetical interface shown in “Waytena, Fig. 5B (as modified and annotated)” (Petition, p.56) *did not exist* in Waytena, it *does exist* in the ‘983 patent as FIG. 4, shown here:

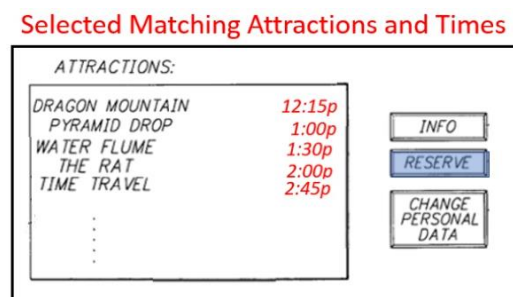




Figure 4

219. Where the ‘983 patent shows “Next Up” indicator 420, Petitioner adopts Waytena’s “ATTRACTION:” legend. Attraction names are paired with scheduled times in both the ‘983 itinerary 400 and Petitioner’s hypothetical interface. While Petitioner has retained Waytena’s RESERVE button, it’s not strictly necessary in the ‘983 patent as “in the case of current event attraction name 430 [in FIG. 4], touching it may optionally bring up a pass form 600 showing a reservation or access permission. Such a pass is shown in FIG. 6.” (‘983 patent, 14:58-61).

220. It is my opinion that Petitioner has impermissibly mimicked itinerary 400 of the ‘983 patent FIG. 4, even to the extent of omitting other buttons and lists from Watena’s original FIG. 5B. The resulting interface has reinstated “the inability of patrons to communicate their intention to attend particular attractions” (Waytena, 1:48-49) that Waytena had intended to address.

221. It is my opinion that a PHOSITA would not have been motivated to modify Waytena in the manner suggested by Petitioner and its expert.

222. As discussed above with reference to the statement in the Houh Declaration at ¶149 that “a party can individually choose and reserve among computer-selected (or recommended) attractions” and touted “an easy one-step process that gives the party the same resulting schedule of reserved attractions,” it is my opinion that a PHOSITA would have recognized that to be not what it is claimed to be – that the set of reservations so made would be inferior and not like what the patron would have chosen, thereby acting against the goal Waytena set out to satisfy, and introducing substantial questions of operability and doubt as to whether there was a reasonable chance of success. There would have been no reasonable motivation for a PHOSITA to proceed as Petitioner has proposed. Further, a simplified proposal for implementing a similar-looking interface, that operates by sticking substantially closer to Waytena’s teachings (supra at ¶113-114) still, for technological reasons, suggests an inoperable mess such that a PHOSITA would not be motivated to consider even that substantially less unobvious “improvement.”

223. Accordingly, it is my opinion that Waytena would not have rendered obvious step 1[c] as alleged by Petitioner.

224. Petitioner and its expert assert that claim 3 would have been obvious over Waytena. In particular, Petitioner asserts that “Claims 3[pre]-3[e] are near identical to claims 1[pre]-1[e].”

225. It is my opinion that Petitioner and its expert are wrong on claim 3 for the reasons expressed above with respect to claim 1. That is, the rebuttal above for claim 1 also applies to claim 3.

226. It is my opinion that claim 4 would not have been obvious over Waytena, not only because claim 4 depends from a patentable base claim, but also for the additional reasons expressed with respect to claim 5³⁰ during the prosecution of the pending application:

“As per claim 5:

Waytena et al do disclose preferences of the party being captured. However, the only use ‘770 offers for these preferences once collected is to narrow the list of attractions from which the patron must select ([‘770] col 14, ln 20-24). Though ‘770 is allowing the patron to filter the available choices based on preferences, customization and creation of an itinerary must still be made manually by the patron before being validated by filtering module 203. The filtering module 203 makes no use of the collected preferences for the purpose of evaluation.”

(EX1002, 47:24-48:3).

227. It is my opinion that claim 5 would not have been obvious over Waytena not only because claim 5 depends from a patentable base claim, but also

³⁰ Claim 5 of the pending application issued as claim 4 of the ‘983 patent.

for the additional reasons expressed with respect to claim 7³¹ during the prosecution of the pending application:

“As per Claim 7:

Claim 7 requires the attributes to be used by the software in step d) as the software selects the second set of attractions. ‘Age 221, height 223, weight 224, and flags 225 are used by filtering module 203 to determine validity of reservation requests.’ ([‘770] col 7, ln 29-31) Waytena does not teach use of party attributes to select attractions...that remains the domain of the patron.”

(EX1002, 48:4-11).

228. It is my opinion that claim 8 would not have been obvious over Waytena not only because claim 8 depends from a patentable base claim, but also for the additional reasons expressed with respect to claim 25³² during the prosecution of the pending application:

“As per Claim 25:

Claim 25 calls for a scheduled time to be provided for an attraction when the attraction is selected by the software. Waytena requires the patron to select not only the attraction, but also the time: ‘The request may specify a particular time of day that the patron is interested in, or it may simply request the next available time for attending the attraction.’ ([‘770] col 12, ln 27-29) However, if the Waytena’s patron selects ‘next available time’ when selecting an attraction and requesting

³¹ Claim 7 of the pending application issued as claim 5 of the ‘983 patent.

³² Claim 25 of the pending application issued as claim 8 of the ‘983 patent.

a reservation, the software may calculate a time based a virtual queue, throughput and cycle time values. ([‘770] col 20, ln 60-64) This is similar to the mechanism employed by Laval et al in 6,173,209 and mentioned in Applicants’ paragraph 0017 [EX1002, 206:8-26]. In neither case, however, does the prior art suggest that the software is able to select both the attraction and the time without the patrons performing the attraction selection.”

(EX1002, 49:4-20).

229. It is my opinion that claim 10 would not have been obvious over Waytena not only because claim 10 depends from a patentable base claim, but also for the additional reasons expressed with respect to claim 29³³ during the prosecution of the pending application:

“As per Claim 29:

In the placed cited by the Examiner ([‘770] col 23, ln 3-24), Waytena provides a way to will [sic] grant or deny a reservation requested for a selected attraction at a selected time. The same process may propose a time for a reservation request for a selected attraction, if no specific time is selected. Further, Waytena provides that travel time is included in the granted, denied, or proposed times.

What Waytena does not teach is software that performs the selection of both an attraction and a corresponding time for incorporation into an itinerary, which is the subject matter of Applicants’ Claim 29.”

(EX1002, 50:23-51:3).

³³ Claim 29 of the pending application issued as claim 10 of the ‘983 patent.

230. It is my opinion that claim 13 would not have been obvious over Waytena not only because claim 13 depends from a patentable base claim, but also for the additional reasons expressed with respect to claim 48³⁴ during the prosecution of the pending application:

“As per Claim 48:

Waytena does not teach any interaction of the ‘770 invention with access control systems. The section cited by the Examiner ([‘770] col 19, ln 9-19) describe [sic] a mechanism to inform the ‘770 invention that a reservation has been kept. It does not relate to any mechanism or process for denying entry to an attraction on the basis of the itinerary.”
(EX1002, 51:22-28).

231. It is my opinion that claim 17 would not have been obvious over Waytena not only because claim 17 depends from a patentable base claim, but also for the additional reasons expressed with respect to claim 61³⁵ during the prosecution of the pending application:

“As per Claim 61:

The Examiner has interpreted ‘auxiliary output device 110 such as audio speaker or vibration mechanism’ ([‘770] col 5, ln 65-66) as meeting the needs of Applicants’ paragraph 0261: ‘The next event indicated on an itinerary form 400 by next event banner 420, might instead be announced audibly in the language of the party’s preference,’ to which Claim 61 is drawn, requiring ‘at least a portion of said itinerary

³⁴ Claim 48 of the pending application issued as claim 13 of the ‘983 patent.

³⁵ Claim 61 of the pending application issued as claim 17 of the ‘983 patent.

is announced audibly by said presentation means.’ Even with the explicit teaching of Waytena et al that ‘The reservation alert issued by module 204 may take the form of a visual indication on user interface 201, optionally accompanied by an auditory indication such as a beep, voice message, or other distinctive sound,’ ([‘770] col 18, ln 59-62) Applicants’ [sic] argue that an ‘auditory indication,’ even one in the form of a voice message, is not the same as ‘the next event indicated on an itinerary...might instead be announced audibly in the language of the party’s preference’ (paragraph 0261).”

(EX1002, 52:11-29).

232. It is my opinion that claim 18 would not have been obvious over Waytena not only because claim 18 depends from a patentable base claim, but also for the additional reasons expressed with respect to claim 64³⁶ during the prosecution of the pending application:

“As per Claim 64:

Waytena et al teach that an indication from a reservation computer that an attraction is unavailable removes the attraction from the itinerary. However, Waytena does not teach that such an indication can prevent the patron from wasting time attempting at least one reservation request before the patron is informed that the attraction is not available. See in ‘770 Figure 7 that manual request is received at 702, necessarily in advance of rejection at 722. Applicants’ Claim 64 provides that the software operating in step d) performs the selection of attractions for

³⁶ Claim 64 of the pending application issued as claim 18 of the ‘983 patent.

the itinerary informed by the reservation computer whether attempted reservation requests were denied.”

(EX1002, 52:30 - 53:12).

233. It is my opinion that claim 19 would not have been obvious over Waytena not only because claim 19 depends from a patentable base claim, but also for the additional reasons expressed with respect to claim 67³⁷ during the prosecution of the pending application:

“As per Claim 67:

Waytena teaches ([‘770] at col 20, ln 57-64, pointed out by Examiner) that an empirical measurement of patrons not utilizing reservations is a basis for overbooking reservations for an attraction. At [‘770] col 22, ln 36-67, Waytena et al describe a calculation that affects the demand on an attraction by increasing or decreasing an ‘interleave ratio’. However, Waytena’s interleave ratio has no effect on the likelihood that an attraction is selected. The interleave ratio moderates demand for an attraction having a certain probability of being selected by only permitting a certain number of reservations per time period. Since the probability of being selected is not reduced, reservations are made at the same rate, regardless of the interleave ratio, until the attraction has no more time slots available, at which point no further attraction reservations are granted. However, even then, the probability that a patron will select an attraction is unchanged. This is the effect predicted by Applicants in paragraph 0025: ‘with such an imbalance of demand, the system of Mahoney et al. will fail as late arriving visitors find that

³⁷ Claim 67 of the pending application issued as claim 19 of the ‘983 patent.

there are no reservations available for any of the ‘E’ attractions, or even ‘D’s.’

Instead, Applicants teach that ‘One preferable method for preventing this capacity overrun is to attenuate the rating of that attraction [having excessive demand] by a factor sufficient to reduce the anticipated itinerary demand to an amount such that the allocated capacity should be sufficient. By statistically lowering the likelihood of an attraction to be selected for inclusion in an itinerary, the directed demand can be moderated.’ (paragraph 0069). Applicants’ Claim 67 alleviates the problem of no reservations available for late-arriving visitors.”

(EX1002, 53:13-54:14, brackets in original).

234. It is my opinion that claim 20 would not have been obvious over Waytena not only because claim 20 depends from a patentable base claim, but also for the additional reasons expressed with respect to claim 72³⁸ during the prosecution of the pending application:

“As per Claim 72:

Applicants do not dispute that a storage for accumulation of reservations for an attraction is well-known. However, to track specifically the portion of the demand for an attraction that is produced by the itinerary generation process (the ‘directed demand’) can provide valuable feedback for control of the itinerary generating process itself, and other integrated reservation making systems. These additional refinements rely on the tracking of directed demand an[d] are

³⁸ Claim 72 of the pending application issued as claim 20 of the ‘983 patent.

elaborated in now-cancelled Claims 73 and 74 and described in paragraph 0258.”

(EX1002, 54:15-25).

235. It is my opinion that claim 21 would not have been obvious over Waytena not only because claim 21 depends from a patentable base claim, but also for the additional reasons expressed with respect to claim 75³⁹ during the prosecution of the pending application:

“As per Claim 75:

Waytena enables patrons to select attractions and request reservations (see ‘770, Figure 5, 503-505; Figure 6, 603-605) for those attractions selected. In the present invention, the software provided is operable to select attractions itself, and make reservations.”

(EX1002, 54:26-31).

236. It is my opinion that claim 23 would not have been obvious over Waytena not only because claim 23 depends from a patentable base claim, but also for the additional reasons set forth below.

237. The proposed messages of Waytena are of the wrong kind. Claim 23 requires that “each of said first set of messages selected from the group consisting of a marketing message, a discount offer, and a recommendation.” A PHOSITA would consider Waytena’s “reservation alert” conditioned on “a reserved time is approaching”, as proposed by Petitioner, to be considered an alarm, reminder, or

³⁹ Claim 75 of the pending application issued as claim 21 of the ‘983 patent.

alert, none of which are recognizable as members of the genus required, failing to meet a limitation of the claim. Rather than simply a user-selectable 5-10 minute warning, or one where the timing is computed from expected travel time, Waytena's reminder/alert is not of the recited genus.

238. The specification of the '983 patent provides support for the claimed marketing message, discount offer, recommendation:

“It is a further an object of this invention to present *marketing promotions* to a party, to *promote certain venues or the sale of certain merchandise*, at times when a party is proximal to it, or the promotion is otherwise deemed appropriate. It may be a factor incorporated in the party's profile whether such marketing promotions are presented.

It is a further object of this invention to *present opportunities for activities* to fill the time between events in the itinerary. For example, when there is a significant amount of time before the next itinerary event, *a recommendation may be made to shop, dine, or make a rest stop.*”

(‘983 patent, 9:16-26 (emphasis added)).

“When in the course of presenting an itinerary having an event with a significant gap between the actual showtime in field 1529 and the sum of the previous time 1522, travel time 1525, and queue time 1527, the presentation of the itinerary can insert an unscheduled item as if it were a part of the itinerary. Such unscheduled items might include pseudo-events such as ‘<shopping>’ or a ‘<photo opportunity>’ or other activities which exist in proximity to the route planned from the

previous event to the current event, and which are in agreement with the party profile.”

(‘983 patent, 29:55-64).

In association with pseudo-events such as ‘<shopping>’, the facility operator may include *marketing messages* or *special offers* to be presented at an appropriate time, and under appropriate conditions. For instance, a *buy-four-get-one-free offer* for ice cream cones might be extended to a party having a size of five or more, that includes small children, and is passing near an ice cream vendor while not being in a rush to make it to the next event. Similarly, at a time appropriate to a “<lunch>” activity... a *discount offer*, or merely a *restaurant recommendation*, may appear that is for a restaurant which targets as its customers the demographic of the party.

(‘983 patent, 30:4-18 (emphasis added)).

239. It is my opinion that claim 24 would not have been obvious over Waytena not only because claim 24 depends from a patentable base claim, but also for the additional reasons expressed with respect to claim 79⁴⁰ during the prosecution of the pending application:

“As per Claim 79:

Insofar as the ‘770 invention does not perform Applicants’ step d) of the parent claim of Claim 79, that is, Waytena et al do not teach that software performs the selection of attractions for the itinerary, the ‘770

⁴⁰ Claim 79 of the pending application issued as claim 24 of the ‘983 patent.

filtering module 203 does not represent a decision making routine to perform the function that Applicants claim in Claim 79.

Applicants do not dispute that Waytena's decision tree shown in '770 Figure 3 represents a decision making routine for implementing the '770 invention. However, as Waytena explains, 'there is shown a flowchart of the overall operation of system 100 in processing a reservation request from a patron.' (['770] col 12, ln 20) This does not anticipate Applicants' invention."

(EX1002 55:19 - 56:2).

240. It is my opinion that claim 25 would not have been obvious over Waytena not only because claim 25 depends from a patentable base claim, but also for the additional reasons expressed with respect to claim 83⁴¹ during the prosecution of the pending application:

"As per Claim 83:

Applicants do not dispute that such data as operating hours, cycle capacity, estimated throughput, today's throughput, and at least some of the data mentioned in the group enumerated in Claim 83 are well-known to represent attractions for the purpose of various management formulae. Applicants maintain that their invention uses such well-known kinds of data regarding attractions to achieve the goals described in the current application. Acceptability of this dependent claim is entirely reliant on the acceptability of the independent parent claim."

(EX1002, 56:3-13).

⁴¹ Claim 83 of the pending application issued as claim 25 of the '983 patent.

D. Ground 4, Claims 1, 3-5, 8, 10, 12-14, 16-21, and 23-25 Would Not Have Been Obvious Over Waytena In View of Herz.

241. The Board does not perform a claim-by-claim analysis in Ground 4.

Instead, the Board states that:

We find that Petitioner has, on this record, sufficient support for its contention that the combination of Waytena and Herz teaches claims 1, 3–5, 8, 10, 12–14, 16–21, and 23–25. We find potential merit in Patent Owner’s evidence and arguments that Herz is not analogous art because it is not in the same field of endeavor as the ’983 patent nor is it reasonably pertinent to the problem faced by the inventor.

Paper 7, 61.

242. It is my opinion that the Board is correct in concluding that: “Herz is not analogous art because it is not in the same field of endeavor as the ’983 patent nor is it reasonably pertinent to the problem faced by the inventor.” *Id.*

243. It is my understanding that prior art is analogous if it is from the same field of endeavor or if it is reasonably pertinent to the particular problem the inventor is trying to solve.” *Circuit CheckInc. v. QXQInc.*, 795 F.3d 1331, 1335 (Fed. Cir. 2015). However, “[i]f [a reference] is directed to a different purpose, the inventor would accordingly have had less motivation or occasion to consider it.” *In re Clay*, 966 F.2d 656, 659 (Fed. Cir. 1992).

244. It is also my understanding that specific teachings, suggestions, or motivations to combine any first prior art reference with a second prior art reference

can be explicit or implicit, but must have existed before the date of purported invention and requires a reasonable expectation of success. *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398 (2007); *In re NuVasive*, 842 F.3d 1376 (Fed. Cir. 2016). *In re O’Farrell*, 853 F.2d 894, 904 (Fed. Cir. 1988) (a reasonable expectation of success is a requirement for a proper determination of obviousness).

245. It is my opinion that Herz is not analogous prior art. It is also my opinion that a PHOSITA would not have been motivated to combine the teachings of Herz with Waytena and reasonably expect success.

246. Petitioner asserts “[t]o the extent Waytena is determined not to disclose or render obvious certain elements of claims 1 and 3 discussed below, such would have been obvious over Waytena in view of Herz.” (Petition, p.69). Petitioner also asserts that “Waytena in view Herz renders obvious Waytena’s PCD presenting an itinerary, or schedule, of computer-selected attractions, without the party having to select which attractions to include.” (Petition, p.70). It is my opinion that Petitioner and its expert are wrong. The field of the invention of Herz is different from that of Waytena. When asserting that “[b]oth Waytena and Herz are in the field of systems and methods that assist parties in identifying and scheduling desirable attractions (*e.g.*, theme park rides in Waytena and movies or shows in Herz),” Petitioner is inaccurate. Waytena self-describes its field of invention as relating “to scheduling patron reservations in facilities offering numerous attractions,” (Waytena, 1:8-9),

while Herz self-describes its field of invention as, “controlling broadcast of and/or customer access to data such as video programs.” (Herz, 1:2-3).

247. It is my opinion that the subject matter of Waytena and Herz are incompatible. The distinction between the fields of invention for Waytena and Herz is pertinent, given that the ‘983 patent self-describes its field of invention as relating generally to “creating a personalized itinerary.” The ‘983 patent teaches that an “itinerary is comprised of events. An event is typically *a visit to an attraction* at a scheduled time. This is not necessarily a reservation, though it can be. It is a time at which the *party is recommended to visit an attraction.*” (‘983 patent, 7:31-34, (emphasis added)) and provides examples of attractions that include “theaters or venues with specific, scheduled times when the attraction begins (like a parade or fireworks show” (*Id.* at 19:18-20), “stage presentation, ... fireworks show” (*Id.* at 5:22), “stage show” (*Id.* at 28:22) and “movie or ride” (*Id.* at 6:31-32). Among attraction preferences listed by Waytena are “thrill rides” and “shows” (*Id.* at FIG. 5A:522). In this way, the ‘983 patent and Waytena are in a common field of invention, each managing to get guests to desirable attractions. Both teach **attractions as having a location** (Waytena, FIG. 2E 233; ‘983 patent, FIG. 8 1-39, FIG. 10 1021). Both teach **travel time between attractions** (Waytena, FIG. 7 710; 983 FIG. 9). Both teach **allocating limited attraction capacity**: *e.g.*, “the

attraction's capacity allocated to visitors" ('983 patent, 8:31) and "conventional approaches inherently misallocate patrons to attractions" (Waytena, 1:22-24).

248. It is my opinion that Herz, on the other hand, is in a non-analogous field, scheduling broadcast of *video programs* and other data. (Herz, title). For Herz, **programs do not have a location**, rather the inverse is the case, people have a location to which programs must be supplied, *e.g.*, "clustering customer profiles for combinations of customers expected to view the video programs at a particular customer location at particular times on particular days" (Herz, 5:34-37)). Customers **need not travel between programs**, "they simply switch channels" (Hertz, 34:11). Lastly, Herz teaches an optimization when picking among "candidate programs available for broadcast" (Herz, 23:32): "Given an agreement matrix A where ac_{ij} is the agreement scalar between customer i and program j" (*Id.* at 23:26-27) Herz says to apply Equation (23) "to pick the set of programs which maximizes the agreement between customers and those programs which the customers might watch" (*Id.* at 23:36-38), then offers the simplification, "If only one program were to be broadcasted using the method of the invention, the above optimization problem is trivially solved by summing each column of A (calculating $\sum_i ac_{ij}$) and picking the program j which give the largest value." (*Id.* at 23:46-50), *i.e.*, would draw the largest audience. Thus, Herz sees an **unlimited program viewing capacity**: In his "only one program" example, Equation (23) could achieve no higher resulting value

than if there were a program j that perfectly satisfied everyone, that is, because “the agreement matrix is normalized so that all agreements between customers and movies lie between zero and one” (*Id.* at 23:21-23), ac_{ij} is unity for every customer i , in which case it represents the ultimate program pick – one that everybody might watch.⁴²

249. It is my opinion that while both Waytena and Herz are trying to best satisfy their users, a PHOSITA would not recognize or anticipate any meaningful contribution that Herz’ domain of scheduling a television broadcast could make to generating an itinerary and would not be motivated to consider the proposed combination. Given the substantial dissimilarities in the fundamental nature of the resources and how they are managed in Waytena and Herz, (assigning **reservations** to Waytena’s physical, limited capacity **attractions** vs. **scheduling broadcast** of Herz’ unlimited-viewership **programs**) a PHOSITA would not be motivated to consider Herz when attempting to improve on Waytena.

250. It is my opinion that in the terminology Applicants used, many types of attractions are described, *e.g.*, “**attractions** selected from the group consisting of **ride, show, movie, ...**” (‘983 patent, claim 12). Petitioner cites this passage in

⁴² This is orthogonal to Herz’ observation that “Data of all kinds will become readily available to the public in quantities never before imaginable. ...allowing customers to receive literally hundreds of video channels into their homes.” (Herz 1:23:29), which is likewise distancing from Waytena,

footnote 17 of the Petition, alleging support of Petitioner's assertion that "Both Waytena and Herz are in the field of *identifying* and *scheduling* desirable *attractions*" (Petition, p.70) and it is not clear whether Petitioner is misunderstanding or mischaracterizing in a way that the dissimilarities are lost in equivocation. The discussion above shows Herz' **programs** are not Applicants' and Waytena's **attractions**. Petitioner's footnote 17 confounds this difference between Waytena's "checkboxes 522 for specifying **attraction** and seating preferences" (Waytena, 13:59-60) (in which two are labeled as "thrill **rides**" and "**shows**" in FIG. 5A) where the same word (or appellative) is used dissimilarly in Herz' statements, *e.g.*, "scheduling the broadcast of **movies** and other **shows**" (Herz, 22:59-60) and thereby suggests what are false equivalencies first between a presentation in a **movie** theater and distributing a **movie** to a customer's television, and second between a stage **show** and a television **show**. It is clearer to express or consider Herz' contributions keeping the non-overloaded term "program" in mind, as in "video programs" (Herz, title), rather than "movie" or "show" to describe Herz' programs.

251. It is my opinion that this makes it clear that when asserting that "[b]oth Waytena and Herz are in the field of systems and methods that assist parties in identifying and scheduling desirable attractions (*e.g.*, theme park rides in Waytena and movies or shows in Herz)" (See Waytena 2:45-4:3; Herz, 4:18-58). It is my opinion that Petitioner is inaccurate. The inaccuracy is further apparent first when

one considers how a PHOSITA would be challenged given that resources being managed are so opposed in their nature, Waytena's *attractions* and Herz' *programs*, and second how a PHOSITA could integrate a scheduling algorithm designed to select the best program to simultaneously satisfy the greatest number of viewers into the production of an itinerary.

252. It is my opinion that Herz operates on *sources*, managed by time slot. Herz provides "scheduling the receipt of desired movies . . . from a network which simultaneously distributes many ***sources*** of such data to many customers, as in a cable television system," and teaches that "a 'virtual channel' is a channel formed as a composite of several source materials . . . [that] reflect the programming most desirable to the customer." (Herz, 3:8-12). Herz uses "an agreement matrix which establishes the degree of correlation between the preferences of the customer or customers and the video programming available during each video programming ***time slot***." (Herz, 10:10-12) (emphasis added). The "agreement matrix is used at the customer's set top multimedia terminal to create 'virtual' data channels from the available data ***sources***." (Herz 9:46-48)(emphasis added).

253. It is my opinion that "as illustrated in FIG. 4, a plurality of program ***source*** materials 402 are [each] modulated by [one of] a [corresponding] plurality of channel modulators 404 and distributed via distribution system 406 at head end 408 and via respective nodes 470 to set top multimedia terminals 412 in the homes

of the head end's customers . . . the set top multimedia terminals 412 and/or the distribution system 406 include software . . . for determining an agreement matrix for each customer.” (see Herz, 40:47-56, FIG. 4). It is reasonable to expect a PHOSITA to wonder, “where do these **sources** come from?” Yet Herz's teaching on this point is unnoticed or neglected by Petitioner. A PHOSITA would understand what an ordinary broadcast or cable channel looks like: Many cable channels show movies one after another, while a more traditional broadcast television typically offers a daily schedule with morning shows in the AM, talk shows and games shows, throughout the afternoon, with local news – particularly around dinner time, and several current television series in prime time, followed by more local news, then the late-night comedy shows. Even where different channels have similar formats, *e.g.*, sequences of movies, the individual programs (the individual movies in this example) are different.

254. It is my opinion that rather than the programming that ordinary broadcast channels offer, which leads to channel surfing, Herz would help to ensure that there is something for everybody in the **sources** being distributed and teaches a preferences-based algorithm (accommodating of ready-made sources, as mentioned above) by producing **sources** well-suited to the audience. (see Herz, 23:63-24:10). In some cases, even organizing these new preference-based **sources** to “have a consistent content or style (*e.g.*, sports or “happy” shows).” (Herz 28:7-8).

255. It is my opinion that Herz' system still accepts such *ordinary* television channels, treating them as ready-made **sources**: "Special programs, such as standard network broadcasts may be included in the scheduling... [and the] algorithm is modified to account for the effect of these programs on customer interest in the remaining video programming." (Herz, 27:15-21) (emphasis added). For all these variations of **sources** that Herz supports, a PHOSITA would still recognize that hour-to-hour, as with the channels of traditional cable or broadcast television, the programs supplied by any of Herz' **sources** is constantly changing. The mix of programs available during one hour is different than that of the following hour.

256. It is my opinion that virtual channels consist of best matches among programs in each *Time Slot*. About constructing Herz' "virtual channels," Herz says, "it is desirable to select n_i programs for each customer i (the 'viewing appetite'). In other words, n_i represents the number of programs scheduled for broadcast to a particular customer *at any time*. In a preferred embodiment, n_i corresponds to the number of 'virtual' channels available to each customer." (Herz, 23:55-60) (emphasis added) Further explains that "the video programs scheduled onto 'virtual channels' are still received on their regular channels and the 'virtual channels' are assigned to unused channels of the set top multimedia terminal." (Id. at 26:4-8).

257. It is my opinion that in order to perform a selection of **programs** appearing simultaneously across the available **sources**, Herz develops information

about the customer: “Preferably, one or more **customer profiles** are created for each customer of the video programs. These customer profiles indicate the customer’s preferences for predetermined characteristics of the video program and may vary in accordance with time of day, time of the week, and/or customer mood. Such ‘characteristics’ may include any descriptive feature suitable in describing particular video programs, such as classification category; directors; actors and actresses; degree of sex and/or violence; and the like.” (Herz, 4:59-4:67). Herz further develops data about television programs: “Corresponding **content profiles** are created for each video program available for viewing and generally indicate the degree of content of the predetermined characteristics in each video program.” (Id. at 5:1-4)(emphasis added). A PHOSITA would find both concepts familiar from the “attraction preferences 541” teachings of Waytena.

258. Where Petitioner explains Herz’ workings, an important “time slot” constraint is left out, added here in brackets: “Herz’s computer selects programs for time slots **[from among all programs available in the corresponding time slot]** that match a party’s profile, creating ‘a collection of only those video programs having content profiles which best match the customer’s profile and hence are most desirable during the relevant time frame.’” (Petition, p. 71) (emphasis added). A PHOSITA could not help but to recognize that Herz’s ‘virtual channels’ technique relies on “establish[ing] the degree of correlation between the preferences of the

customer or customers and the video programming available during *each video programming time slot*.” (Herz, 10:10-12) (emphasis added).

259. “An agreement matrix relating the **customer profiles** with the **content profiles** is then generated. Preferably, the agreement matrix enables the system to determine a subset of the *available programs at a particular point in time* which is most desirable for viewing by the customer.” (Herz, 5:4-9) (emphasis added). It is my opinion that so far, Herz has provided a mechanism for identifying preferences and as with Waytena, the customer preferences seem to return a collection.

260. It is my opinion that Herz teaches selection by the user. As with Waytena’s attractions list 541, Herz says, “The determined subset of video programs is then *presented to the customer for selection in the conventional manner*, except that each ‘virtual channel’ includes a collection of the offerings available on all of the originally broadcast channels from the cable system. The ‘virtual channels’ are then generated by the customer’s set top multimedia terminal for display on the customer’s television. *The customer may then select the desired video programming, which may or may not include the programming offered on the ‘virtual channels’.*” (Herz 4:9-5:18) (emphasis added). A PHOSITA could not fail to understand that the prior art, even including Herz, is seen to teach selection by the user.⁴³

⁴³ If Herz did not accommodate user selection, then Herz could supply each customer with exactly one channel, yet what Herz teaches is “literally hundreds of video channels in their homes” (Herz 1:28-29).

261. It is my opinion that Herz *explicitly* teaches that “[t]he creation of such ‘virtual channels’ is intended to minimize the amount of ‘channel surfing’ necessary to find the most preferred video program at a particular time.” (Herz, 3:12-15) (emphasis added). A customer sees Herz’ “virtual channels” alongside traditional channel selections available, where “the display guide 914 is either modified to include fields for the ‘virtual’ channels, or else the recommended programming is highlighted in an obvious manner or reordered for the customer’s perusal and selection of the desired programming. *Once the customer has selected* the desired virtual channel from a highlighted program guide or a listing of the programs available on the virtual channels using the customer’s remote control unit, processor 906 then accordingly instructs channel selector 912 to tune the channels for the programming.” (Herz, 45:39-48) (emphasis added).

262. Petitioner even admits that “Herz teaches this **minimizes** the need for parties to manually search for and select content,” (Petition, p.70), yet still Petitioner would like to sell Herz’s mechanism as an obvious means to transforming the reservation system of Waytena into an itinerary generator. It is my opinion that, that does not work technically, as Herz is reliant on the nature of *video programming*.

263. It is my opinion that Herz’s optimizing for time slots is not useful with Waytena. Where Herz says “the most preferred video program *at a particular time*,” (Herz, 3:14-15, emphasis added), a PHOSITA would readily perceive a dissonance,

since theme park attractions, barring unexpected inoperation, are almost always available, that is, their availability is substantially unchanging hour to hour. Waytena shows this in FIG. 2B, where the five attractions listed, WATER FLUME, THE RAT, TIME TRAVEL, DRAGON MOUNTAIN, PYRAMID DROP each show operating hours of least from 10:00 AM to 4:00PM, after which WATER FLUME closes, followed by THE RAT at 6:00PM, with the remaining attractions shutting down together at 8:00PM.

264. It is my opinion that thus, were a PHOSITA to partition the six-hour period from 10:00AM to 4:00PM into an arbitrary plurality of time slots for the application of Herz' "virtual channels" technique, "an 'agreement matrix' characterizing the attractiveness of each available source," (Herz, 4:19-21), or here, "attraction", would select that "which is predicted to be the most desirable to the customer based on the customer's preferences," (Herz, 4:25-27), which for the substantial portion of the operating day would be the same for each time slot in that interval.

265. Herz's time slots are not respected by Petitioner. Petitioner has asserted that since "Waytena also discloses allowing a party to select 'next available time' for each recommended attraction, and the PCDs and attraction computers communicate to provide a reservation time that fits ride availability and the party's schedule. A PHOSITA would have thus understood that the PCD could simply use

‘next available time’ as a default and create a complete itinerary itself.” (Petition, pp. 56-57). However, a PHOSITA would recognize that this scheme, in light of the proposed combination, fails to respect the time slots that are the basis of operation corresponding to the recommendations of Herz, since use of Waytena’s NEXT AVAILABLE button 563 sets a “variable called timeReq...707 to the *current time*,” (Waytena, 23:4-6) (emphasis added), effectively disregarding the limitations of how Herz operates.

266. It is my opinion that Herz’s time slots are not respected by Waytena. A PHOSITA would have further recognized incompatibility between Herz and Waytena in that, where Herz is to identify the attraction “predicted to be the most desirable” (Herz, 4:25-26) based on “the degree of correlation between the preferences of the customer or customers and the video programming [attractions] available during each . . . time slot,” (Herz, 10:10-12), Waytena’s “method of processing requests for a reservation,” (Waytena, 4:53-54), shown in FIG. 7 provides no assurance that “request processor 209 for processing reservation requests,” (*Id.* at 63-64), upon receiving a reservation request for a particular time slot will respond with a reservation proposed during that time slot because, even where “the patron requested a specific time for the reservation... [and the] variable called timeReq is set 708 to the specific time,” (*Id.* at 23:3-5), timeReq can be modified throughout the method of FIG. 7 in response to other reservations, (*Id.* at 23:6-13), travel time

before, (*Id.* at 23:14-24) and after, (*Id.* at 24:28-37), and lack of gaps of sufficient size in the attraction queue, (*Id.* at 23:40-24:28). Waytena handles this variability by returning “message 581 informing the patron of the availability of the selected attraction at a particular time.” *Id.* at 17:26-32. A PHOSITA would understand that Herz has no anticipation of such a scenario because there is no limit to how many receivers can tune to a particular channel.

267. It is my opinion that thus, Herz picks from *programs* that are already scheduled to be available and freely allocates them to the customer’s virtual channel. However, *attractions* have limited capacity and can only be allocated up to their capacity. Waytena schedules *people*, who are to show up at an attraction whereas Herz schedules *programs*, when is a program to be shown.

E. Ground 5, Claim 7 Would Not Have Been Obvious Over Waytena (as modified by Herz) In View of Sim.

268. The Board in its Institution Decision states:

Patent Owner argues that “[c]laim 7 would not have been obvious over Waytena (as modified by Herz) due to the reasons already expressed during the original prosecution of the ’983 Patent.” Prelim. Resp. 70 (citing Gonsalves Decl., ¶ 170; ‘983 Patent Filing History, 48:22–49:3). Patent Owner further argues that dependent claim 7 is not invalid based on its dependence from independent claim 3. *Id.* Patent Owner does not present separate argument against the Petitioner’s proposed modification of Waytena with Sim.

We find that Petitioner has, on this record, sufficient support for its contention that the combination of Waytena, Herz, and Sim teaches dependent claim 7.

Paper 7, 62-63.

269. It is my opinion that the Board erred in concluding that: “Petitioner has sufficient support for its contention that the combination of Waytena, Herz, and Sim teaches dependent claim 7.”

270. It is my opinion that claim 7 would not have been obvious over Waytena (as modified by Herz) in view of Sim not only because claim 7 depends from a patentable base claim, but also for the additional reasons expressed below and with respect to claim 13⁴⁴ during the prosecution of the pending application:

“As per Claim 13:

Waytena does not refer to privileges of the party that distinguish between attractions. The Examiner has pointed to ‘770, col 20, ln 51-55, as an incidence of such privilege in Waytena. However, rather than a privilege, this section instead describes a way of estimating the likelihood of a reservation being kept. This has no bearing on whether or not an attraction is selected, nor whether a reservation can be accepted. Here Waytena is seeking to eek out a slightly higher performance from his system by estimating a safe amount of overbooking. Waytena does not teach a privilege of a party affecting the desirability of attractions for inclusion in the itinerary.”

⁴⁴ Claim 13 of the pending application issued as claim 7 of the ‘983 patent.

(EX1002, 48:22-49:3).

Herz does not remedy this shortcoming. While Herz does describe “pay-per-view” services (EX1008 7:41-43; 42:46-52; 43:36-39; 46:30-35) in conjunction with encrypting valuable content and mechanisms for proper billing and “subscriber” (Id. 3:30-40) to describe customers, Herz has no discussion of how these topics might differentially influence program selection. Neither does Sim, when teaching “The present invention can be employed in theme parks as a queue management system for all of the guests, or for a proportion of the guests who are willing to pay a premium, or one of a range of premiums corresponding to a range of privileges.” (EX1005 3:23-27). A PHOSITA contemplating Sim’s case of “a proportion of the guests who are willing to pay a premium” would consider that users of Sim’s system have paid a premium to use the system, i.e., to obtain the use of one of Sim’s portable modules, while non-users have not. Accordingly, attraction selection needn’t be concerned with that form of privilege. Elsewhere, Sim describes that “each docking station includes payment means for receiving payment in respect of a queue which has a fee associated therewith. The payment means is adapted to request payment and await receipt of payment before registering a person or group of people in a queue sequence for a desired queue which has a fee associated therewith.” (id. 13:1-8). However such fees accrue *after*

a user identifies a queue selection and, since Sim does not present software that selects, such a selection cannot in any case be affected by a privilege.

Moreover, a PHOSITA would not have been motivated to combine Herz with Waytena and reasonably expect success, as explained in detail above.

F. Ground 6, Claims 11 and 22 Would Not Have Been Obvious Over Waytena (as modified by Herz) In View of Doi.

271. The Board in its Institution Decision states:

Patent Owner contends that claim 11 would not have been obvious over Waytena, Herz, and Doi “due to the reasons already expressed during the original prosecution of the ’983 Patent,” i.e., “[s]ince the invention of [Waytena] does not select attractions, there is no mechanism proposed by Waytena to select replacement attractions that substantially avoid attractions already visited.” Prelim. Resp. 70–71 (citing Gonsalves Decl., ¶ 171; ’983 Patent Filing History, 51:4–15). Patent Owner does not provide specific argument against the combination proposed by Petitioner.

We find that Petitioner has, on this record, sufficient support for its contention that the combination of Waytena, Herz, and Doi teaches dependent claim 11.

Paper 7, 64.

272. It is my opinion that the Board erred in concluding that: “Petitioner has sufficient support for its contention that the combination of Waytena, Herz, and Doi teaches dependent claim 11.” *Id.*

273. It is my opinion that claim 11 would not have been obvious over Waytena (as modified by Herz) in view of Doi not only because claim 11 depends

from a patentable base claim, but also for the additional reasons expressed with respect to claim 45⁴⁵ during the prosecution of the pending application:

“As per Claim 45:

Since the invention of ‘770 does not select attractions (the selection is up to the patron), there is no mechanism proposed by Waytena et al to select replacement attractions that substantially avoid attractions already visited, per Applicants’ claim 45. What Waytena does teach is that once a selection has been made by the patron and a reservation granted by the ‘770 invention, that delays or other trouble can cause the granted reservation to be cancelled and possibly replaced with a new proposed reservation, but the attraction selection does not change. ([‘770] col 11, ln 1-25)”

(EX1002, 51:4-15).

Herz offers no mechanism to change a scheduled broadcast. If a user is unavailable to view a program in the scheduled time slot, Herz offers no recourse, unless the program happens to be scheduled to repeat (EX1008 22:39-48), though such repetitions do not represent “said second set of attractions as a replacement for said remaining portion” as recited in claim 11. Rather, the recited “remaining portion” would remain unchanged by Herz and that remainder of Herz’ programming schedule continues unhaltingly, on both regular and virtual channels, available to be accessed, already in progress, by the user upon his return.

⁴⁵ Claim 45 of the pending application issued as claim 11 of the ‘983 patent.

Petitioner asserts that “Doi, in the same field as Waytena, discloses that where rides have long wait times, it will select replacement rides for parties so as ‘to take a measure for the waiting time to be shorter.’” Petition pp. 74-75. Petitioner further asserts that “[l]ike Doi, Waytena discloses that ‘attraction malfunctions’ and ‘other factors’ (‘interruptions’) can occur. To overcome these interruptions, ‘patrons may initiate changes or cancellations to reservations.’” *Id.* at p. 75. It is my opinion that the petitioner is trying to confuse the language recited in claim 11, which recites that “said software selects said second set of attractions as a replacement for said remaining portion” with a single replacement for a single attraction. Petitioner cites Waytena column 11 line 1 to 11 (Petition, p. 75) and attempts to argue that Waytena discloses a solution to the occurrence of interruptions. However, what Waytena actually discloses, concerning the interruptions, is that various interruptions can occur at a single attraction. Waytena discloses “Queue updater 212 makes adjustments to virtual queue 210 when necessitated by changes in the status of *the attraction*.” (Waytena, 11:1-3) (emphasis added). Waytena does not disclose that the rest of the remaining portion of the itinerary will also receive replacements, except for the single attraction where interruptions have occurred, thus a replacement has been provided and the customer needs to confirm. Doi also does not disclose “a replacement for the remaining portion.” In conclusion, all the arguments Petitioner

tried to make is that Waytena in view of Doi, provides a solution that there will be replacement for the interrupted attraction.

274. The Board in its Institution Decision states:

At this stage, the parties' disputes regarding claim 22 are substantively the same as the parties' disputes regarding independent claims 1 and 3 regarding what is selected by software. Pet. 49–58; Prelim. Resp. 25–27, 31–42. Accordingly, our discussion of those disputes in Section III.G above also applies to the parties' disputes regarding dependent claim 22.

We find that Petitioner has, on this record, sufficient support for its contention that the combination of Waytena, Herz, and Doi teaches dependent claim 22.

Paper 7, 65-66.

275. It is my opinion that the Board erred in concluding that: “Petitioner has sufficient support for its contention that the combination of Waytena, Herz, and Doi teaches dependent claim 22.” *Id.*

276. It is my opinion that claim 22 would not have been obvious over Waytena (as modified by Herz) in view of Doi not only because claim 22 depends from a patentable base claim but also because of the limitations recited within claim 22.

277. Doi relies on users to select attractions. Since users are making the selections, there is no software to apply a perturbation to a desirability of a first attraction to produce a different result (*see* ‘983 patent, 24:16-25:15 discussed the

perturbed directed demand in FIG. 13) of the software selection of the second set (which the itinerary comprises).

278. Doi relies on other methods to manage their queues. Petitioner shows Doi using more of a “carrot” approach by adjusting the price of an attraction, which may coax Doi’s customer to decide the lower price is sufficiently attractive. (Petition, p. 76). As with Doi marketing that attraction D has a shorter line, these appeals just drive home that there is no software selecting what attraction comes next, it’s up to Doi’s customer. Waytena relies on user selection so there is nothing for the recited perturbation to affect. Herz does not remedy any shortcomings here. Herz teaches computing which programs best align with the viewers’ interests and schedules those programs. Since excess demand for a program is not a problem facing Herz, Herz has no need of perturb program desirability.

279. Ultimately, no combination of these teaching results in the perturbation to a desirability that results in a different software-based selection of attractions. Having no “software that selects” there is no “directed demand”. Instead, Doi attempts to change the demand by altering an attraction’s price; and Waytena and Herz make no such attempts. Neither of these represents the capability of perturbing directed demand.

280. Moreover, a PHOSITA would not have been motivated to combine Herz with Waytena and reasonably expect success, as explained in detail above.

X. TRIAL EXHIBITS

281. I have not yet prepared any demonstrative exhibits for trial but I may do so pursuant to the schedule set by this panel of the Patent Trial and Appeal Board.

XI. SUPPLEMENTATION

282. I reserve the right to supplement or amend this expert report if additional facts and information that affect my opinions become available through discovery or otherwise.

Executed on July 8, 2024 in Falls Church, VA.

By: /s/ Gregory J. Gonsalves

Dr. Gregory J. Gonsalves

ATTACHMENT A

GREGORY J. GONSALVES, Ph.D., J.D.

Computer Engineer, Patent Attorney and Former Judge at the Patent Trial and Appeal Board
571-419-7252

EXPERIENCE

SOFTWARE DESIGN AND DEVELOPMENT

Designed and developed software for resource scheduling and allocation, air traffic control, and the automated design of integrated circuits

Wrote hundreds of thousands of lines of code in objection oriented and procedural programming languages

PUBLICATIONS

Gonsalves, G.J. "Logic synthesis using simulated annealing," in Proceedings of the IEEE International Conference on Computer Design, pp. 561–564, October 1986 (use of probabilistic algorithms for combinatorial optimization).

Gonsalves, G. J., Technology Mapping Using Simulated Annealing, IBM Technical Disclosure Bulletin, Aug. 1990, vol. 33, No. 3A, p. 308.

PATENT PROSECUTION

Prepared and prosecuted hundreds of patent applications involving electronic commerce, economic modeling, economic web synthesis, auctions, check processing, business methods, electrical and computer engineering

PATENT LITIGATION

Participated in all aspects of patent litigation for patents relating to software interfaces, secure e-commerce transactions,

AMERICA INVENTS ACT (AIA) POST GRANT PRACTICE

Represented clients as lead counsel in more than 260 post grant proceedings at the U.S. Patent & Trademark Office including Inter Partes Review, Covered Business Method review and Post Grant Review. for patents relating to secure electronic commerce, business methods, computer science, electrical and computer engineering

APPELLATE PRACTICE

Represented clients as lead counsel in about 30 appeals of post grant proceedings at the Court of Appeals of the Federal Circuit and an appeal at the U.S. Supreme Court

COUNSELING AND DUE DILIGENCE

Prepared opinions of counsel for patents involving various types of technology such as consumer electronics, network storage systems, and synchronous optical networks.

Provided legal advice on the intellectual property aspects of corporate acquisitions and licensing in various fields including secure electronic banking and business management software.

EXPERT TESTIMONY

In the past six years, I testified at a deposition in *Applied Capital, Inc. v. The ADT Corporation and ADT LLC*, Case No. 1:16-cv-815-JB-SCY (D.N.M. 2020), testified at a deposition and trial in *Video Share Inc. v. Google, LLC and Youtube, LLC*, Case No. 1:16-cv-815-JB-SCY (W.D. Tex. 2021), and testified at trial in *Persawvere, Inc., v. Milwaukee Electric Tool Corporation*, Case No. C. A. 21-400-GBW (D. Del. 2023)

REPRESENTATIVE AIA POST GRANT PROCEEDINGS AND FEDERAL CIRCUIT APPEALS

IPR2014-00475, CBM2014-00100, CBM2015-0009, -0027, and -0039
(represented SecureAxxess for patents relating to secure electronic commerce)

IPR2013-00592 Samsung v. Boston University
(represented Patent Owner, institution denied)

IPR2013-00298 Epistar v. Boston University
(represented Patent Owner, institution denied)

IPR2014-00751 Emerson Electric Co. v. SIPCO
(represented Patent Owner, only three claims cancelled)

IPR2015-00659 Emerson Electric Co. v. SIPCO
(represented Patent Owner; institution denied)

IPR2015-00668 Emerson Electric Co. v. SIPCO
(represented Patent Owner; institution denied)

IPR2015-01579 Emerson Electric Co. v. SIPCO
(represented Patent Owner; institution denied)

IPR2015-01973 Emerson Electric Co. v. SIPCO
(represented Patent Owner, no claims cancelled)

IPR2016-00984 Emerson Electric Co. v. SIPCO
(represented Patent Owner at PTAB and the Federal Circuit, which remanded the IPR)

IPR2016-01895 Emerson Electric Co. v. SIPCO
(represented Patent Owner at PTAB and the Federal Circuit, which remanded the IPR)

IPR2017-00001 Emerson Electric Co. v. SIPCO
(represented Patent Owner; only two claims cancelled)

IPR2017-00308 Emerson Electric Co. v. SIPCO
(represented Patent Owner; institution denied)

IPR2017-00333 Emerson Electric Co. v. SIPCO
(represented Patent Owner, institution denied)

IPR2017-00359 Emerson Electric Co. v. SIPCO
(represented Patent Owner at PTAB and the Federal Circuit where it is pending)

CBM2016-00095 Emerson Electric Co. v. SIPCO
(represented Patent Owner at PTAB and the Federal Circuit, which remanded with instructions to use Patent Owner's proposed claim construction)

REPRESENTATIVE LITIGATIONS

Surety v. Entrust (E.D. VA)

(represented the defendant in a patent case involving secure electronic timestamping for electronic commerce)

Mirror Worlds, LLC v. Apple, Inc. (E.D. TX)

(represented the plaintiff in a patent case relating to computer interfaces)

Khyber v. Casio (MA)

(represented the defendant in a patent case involving handheld computers)

MLR, LLC v. ZTE Corporation and ZTE, Inc. (E.D. VA)

(Represented ZTE in a patent case relating to the dynamic switching among wireless communication networks based on user preferences)

SPH America v. High Tech Computer Corporation (E.D. VA)

(represented the plaintiff in a patent case involve modulation for wireless communication)

Positive Technologies v. Hitachi (E.D. TX)

(represented the defendant in a patent case relating to LCDs)

Tantivy Communications Inc. v. Lucent (E.D. TX)

(represented the defendant in a patent case relating to the allocation of CDMA channels)

Motorola v. Analog Devices Inc. (E.D. TX)

(represented the defendant in a patent case relating to firmware for debugging microcontrollers)

Sony v. Kodak (W.D. NY)

(represented the defendant in its counterclaims of patent infringement relating to the control of digital cameras and CCD image sensors)

Iridian v. Iritech (DE)

(represented the defendant in a patent case involving identity verification using iris recognition)

Comtech v. Miteq (AZ)

(represented the defendant in a patent case relating to an arrangement of frequency converters)

EFI v. Casio, Inc. (E.D. TX)

(represented the defendant in a patent case relating to color processing)

Sigma Tau v. Bedford Laboratories (E.D. MD)

(represented the defendant in a case involving allegations of breach of a settlement agreement of a prior patent case)

Sandvik v. Iscar (DC)

(represented the defendant in a patent case involving cutting inserts for machine tools)

Law Offices of Dr. Gregory J. Gonsalves 7/2013 – present

Patent Judge and Patent Attorney at Patent Trial and Appeal Board 6/2010 – 6/2013

Analyzed briefs and evidence to make a decision about the patentability of patent claims involving computer science, computer engineering and electrical engineering

Prepared opinions providing a decision and an explanation for the decision.

Law Offices of Dr. Gregory J. Gonsalves 6/2008 – 6/2010

Jenner & Block Partner 6/2006-6/2008

Jones Day / Pennie & Edmonds¹ Associate 6/1997-5/2006

IBM / Loral Staff Scientist 1983-1997

¹ Pennie & Edmonds merged into Jones Day in 2004.

EDUCATION

Georgetown University Law Center, Juris Doctorate, Cum Laude	1997
Syracuse University, Ph. D., Computer Engineering Dissertation: Sequential and Massively Parallel Techniques For Equivalence Verification of Synchronous Sequential Logic	1991
Syracuse University, M.S., Electrical Engineering G.P.A. 3.95	1987
Northeastern University, B.S. Electrical Engineering G.P.A. 3.9	1982

OTHER PROFESSIONAL EXPERIENCE

PRO BONO CRIMINAL LAW	2004 - 2008
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Represented clients in more than a dozen criminal cases as the lead attorney in county district court

ENGLISH AND WRITING INSTRUCTOR

Sacred Heart Adult Education Center	2001 - 2006
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Taught English and writing as a volunteer to immigrants preparing to take the high school equivalency examination

BAR ADMISSIONS

U. S. PTO; United States Court Of Appeals For The Federal and Fourth Circuits; United States District Court For The Eastern District Of Virginia; Virginia State Bar; District of Columbia Bar

AWARDS

IBM DOCTORAL AND MASTERS FELLOWSHIPS

Awarded salary and tuition grant to perform research for my masters and doctorate degrees.