



DIRECT EXAMINATION OF KARAN SINGH, PH.D.

*Maxell, Ltd. v. Samsung Electronics Co., Ltd. and Samsung
Electronics America, Inc.*

Case No. 5:23-CV-00092-RWS (E.D. Tex.)

May 21, 2025

PDX007-1

Dr. Karan Singh



EDUCATION

Ohio State University

- Ph.D. Computer Science 1995.

Ohio State University

- M.S. Computer Science 1992.

Indian Institute of Technology Madras

- B.S. Computer Science and Engineering 1991.



THE OHIO STATE
UNIVERSITY



EXPERIENCE

University of Toronto

- Professor, Department of Computer Science (2002-present).

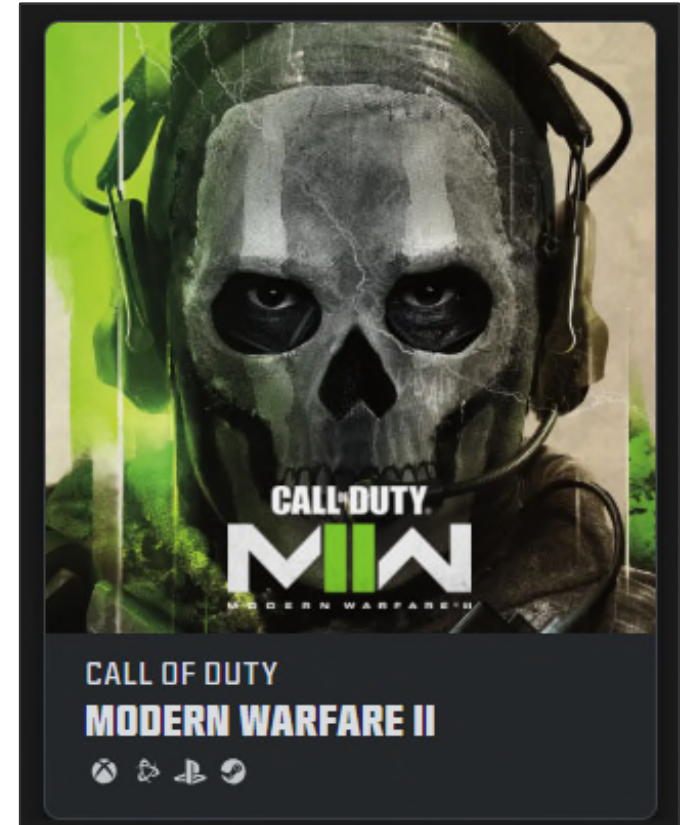


UNIVERSITY OF
TORONTO

Co-founder—JALI Research Inc.



"While it's home to never seen before systems, one of Cyberpunk2077's most impressive has to be JALI. JALI is software capable of complete automation of lip syncing and facial animation that offers developers complete control to fine tune the end result." — PC Gamer Dec 2020





KARAN SINGH

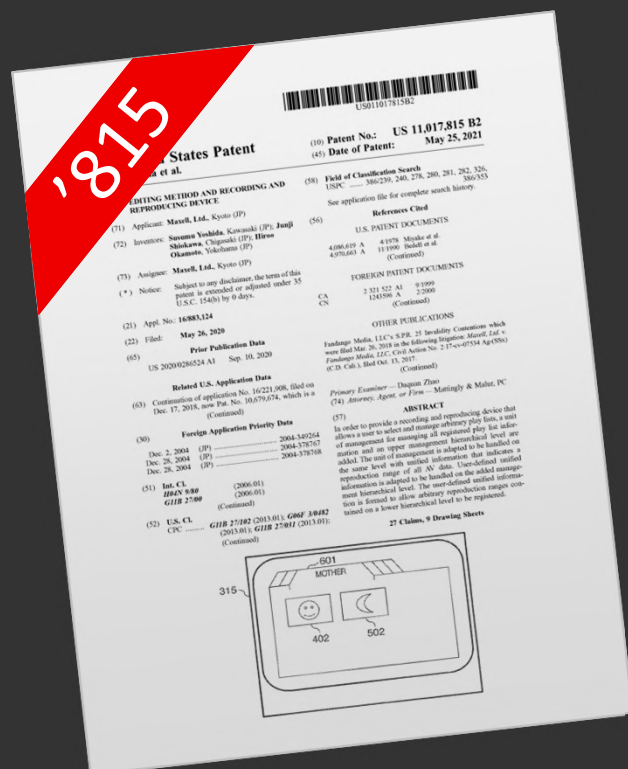
FACIAL RESEARCH & DEVELOPMENT

HAEKWANG EOM, MUHAMMAD GHIFARY, SUZI KIM, WAN-DUO KURT MA, BENJAMIN MOUSCADET, KARAN SINGH

PDX007-4



USER DEDICATED VIDEO PLAYLIST MANAGEMENT U.S. PATENT NO. 11,017,815 (PX-006)



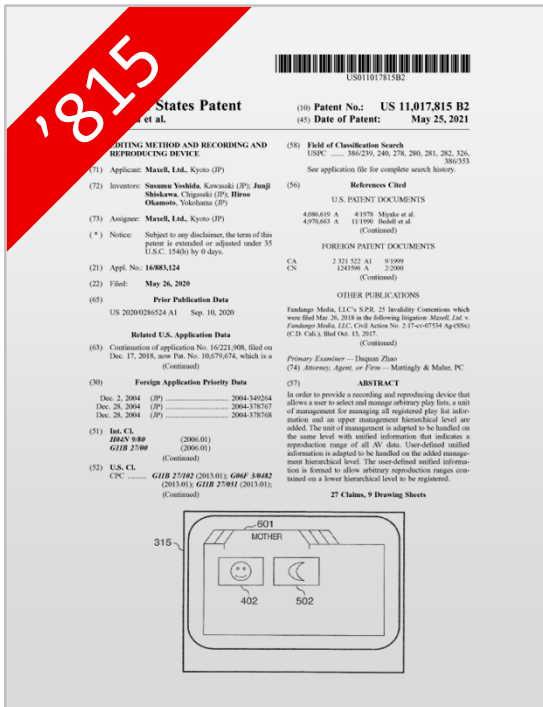
PDX007-5



What Was I Asked To Do?

Utilizing my background/expertise & evidence of the case:

- I was asked to examine the '815 Patent and determine if the Accused Samsung Products infringe claims 1, 21, and 24.
- I was asked to determine whether claims 1, 21, and 24 of the '815 Patent are valid.



PX-006

PDX007-6



Reviewed Materials

- The '815 Patent and File History 
- Samsung's technical documents and discovery responses (*e.g.*, technical specifications, schematics, internal presentations, data sheets etc.) 

- Samsung's source code



- Court's Claim Construction Order



- Testimony of Samsung's engineer (JungHee Lee)



- Tested Samsung's Products

Product	Serial Nos.
Samsung Galaxy S23	RFCX90M53KL
Samsung Galaxy S23	RFCX60XVQCN

Summary of Opinions



Accused Samsung products infringe claims 1, 21, and 24 of the '815 Patent

Claims 1, 21, and 24 of the '815 Patent are Valid

Claim Construction of the '815 Patent



Term	Court's Construction
“receiving, via a network, first video information wirelessly from a device external to the information processing apparatus, the first video information being received including second video information that is encrypted” '815 Patent, Claim 21	“the second video information is in encrypted form at the time it is received”
“character” '815 Patent, Claims 1 and 21	“A letter, number, punctuation mark, or other symbol or control code that is represented to a computer by one unit of information”
“the first group of video information being configured to allow a user to edit” '815 Patent, Claim 1	“the composition of the first group of video information being editable by a user”
“being deleted from the first group of video information” '815 Patent, Claim 1	“being removed from the first group of video information”
“user profile” / “user profiles” '815 Patent, Claims 1, 21, and 24	“a collection of settings and information associated with a user”

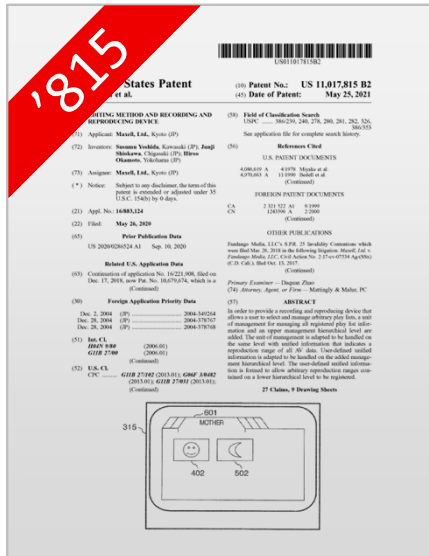


Person of Ordinary Skill in the Art (POSITA)

- The '815 Patent involves the general principles regarding Human Computer Interaction, user interfaces, and content management.
- A POSITA would be an individual with:
 - Bachelor of Science degree in Electrical Engineering, Computer Engineering, Computer Science, Human Computer Interaction, or a related technical field.
 - At least one year of experience working in the field of user interfaces and/or content management.
 - Graduate degree or work experience may compensate for a deficit in one of the relevant qualifications.



I was at least a POSITA in 2004.



PX-006

PDX007-10



815

United States Patent
Yoshida et al.

(10) Patent No.: US 11,017,815 B2
(45) Date of Patent: May 25, 2021

(54) EDITING METHOD AND RECORDING AND REPRODUCING DEVICE
(71) Applicant: Maxell, Ltd., Kyoto (JP)
(72) Inventors: Susumu Yoshida, Kawasaki (JP); Junji Shiohara, Chigasaki (JP); Hiroo Okamoto, Yokohama (JP)
(73) Assignee: Maxell, Ltd., Kyoto (JP)
(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.
(21) Appl. No.: 16/883,124
(22) Filed: May 26, 2020
(65) Prior Publication Data
US 2020/0286524 A1 Sep. 10, 2020
(63) Continuation of application No. 16/221,908, filed on Dec. 17, 2018, now Pat. No. 10,679,674, which is a (Continued)
(30) Foreign Application Priority Data
Dec. 2, 2004 (JP) 2004-349264
Dec. 28, 2004 (JP) 2004-378767
Dec. 28, 2004 (JP) 2004-378768
(51) Int. Cl.
H04N 9/80 (2006.01)
G11B 27/00 (2006.01)
(Continued)
(52) U.S. Cl.
CPC G11B 27/02 (2013.01); G06F 3/0482 (2013.01); G11B 27/031 (2013.01);
(Continued)
27 Claims, 9 Drawing Sheets

(58) Field of Classification Search
USPC 386/239, 240, 278, 280, 281, 282, 326, 386/353
See application file for complete search history.
(56) References Cited
U.S. PATENT DOCUMENTS
4,086,619 A 4/1978 Miyake et al.
4,970,663 A 11/1990 Bedell et al.
(Continued)
FOREIGN PATENT DOCUMENTS
CA 2 321 522 A1 9/1999
CN 1243596 A 2/2000
(Continued)
OTHER PUBLICATIONS
Fandango Media, LLC's S.P.R. 25 Invalidation Contentions which were filed Mar. 26, 2018 in the following litigation: *Maxell, Ltd. v. Fandango Media, LLC*, Civil Action No. 2:17-cv-07534 Ag-(SSS) (C.D. Cal.), filed Oct. 13, 2017.
(Continued)
Primary Examiner — Daquan Zhao
(74) Attorney, Agent, or Firm — Mattingly & Malur, PC
(57) ABSTRACT
In order to provide a recording and reproducing device that allows a user to select and manage arbitrary play lists, a unit of management for managing all registered play list information and an upper management hierarchical level are added. The unit of management is adapted to be handled on the same level with unified information that indicates a reproduction range of all AV data. User-defined unified information is adapted to be handled on the added management hierarchical level. The user-defined unified information is formed to allow arbitrary reproduction ranges contained on a lower hierarchical level to be registered.

315

601
MOTHER

402

502

PX-006

Patent No.: US 11,017,815 B2
Date of Patent: May 25, 2021
Foreign Application Priority Data

Dec. 2, 2004 (JP) 2004-349264
Dec. 28, 2004 (JP) 2004-378767
Dec. 28, 2004 (JP) 2004-378768

EDITING METHOD AND RECORDING AND REPRODUCING DEVICE

Timeline of '815 Patent Family

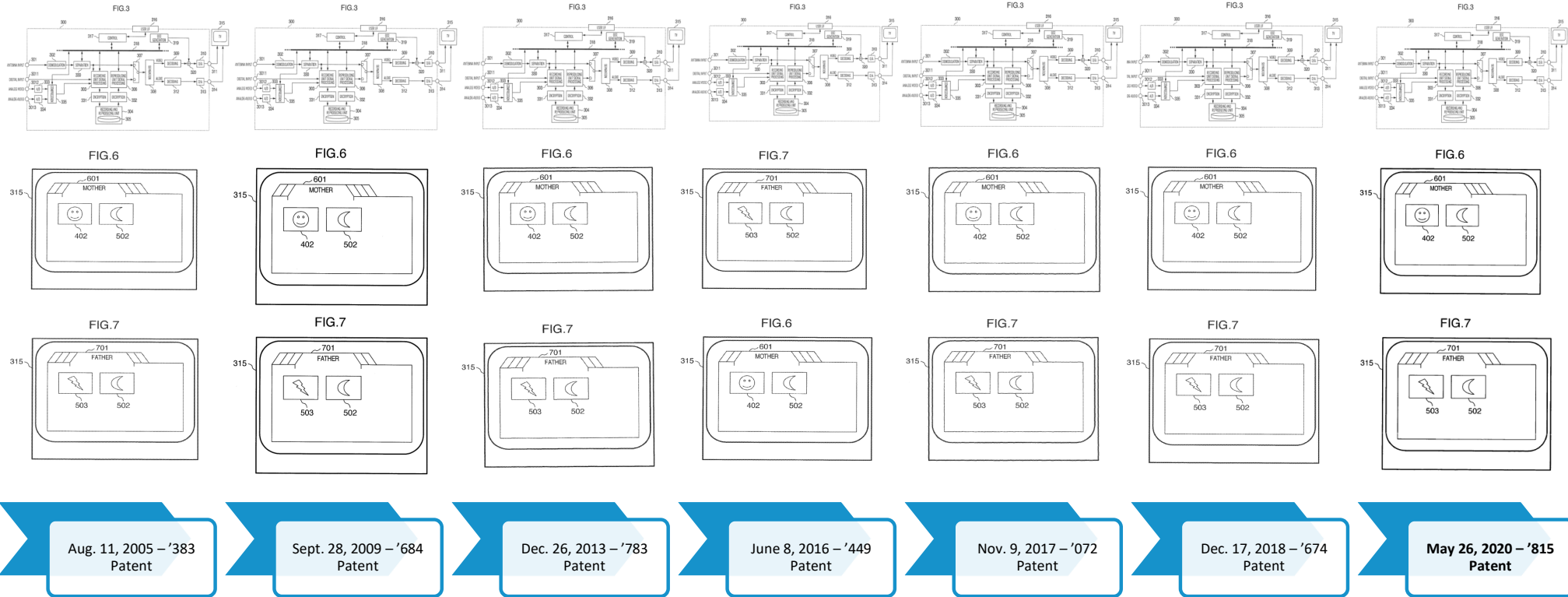


FIG. 6 shows an example in which menu display is conducted by using the user-defined unified information #1 shown in FIG. 1. Reference numeral 601 designates a menu display tag for user #1 (who is supposed to be "mother" here). As appreciated from FIG. 1, reference numerals 402 and 502 designate thumbnails indicating the program information #1 and the play list information #1, respectively. The "mother" can use the menu display tag for mother 601 as a folder dedicated to herself, and freely register and delete data to be reproduced. In the same way, FIG. 7 shows an

FIG. 6 shows an example in which menu display is conducted by using the user-defined unified information #1 shown in FIG. 1. Reference numeral 601 designates a menu display tag for user #1 (who is supposed to be "mother" here). As appreciated from FIG. 1, reference numerals 402 and 502 designate thumbnails indicating the program information #1 and the play list information #1, respectively. The "mother" can use the menu display tag for mother 601 as a folder dedicated to herself, and freely register and delete data to be reproduced. In the same way, FIG. 7 shows an example in

FIG. 6 shows an example in which menu display is conducted by using the user-defined unified information #1 shown in FIG. 1. Reference numeral 601 designates a menu display tag for user #1 (who is supposed to be "mother" here). As appreciated from FIG. 1, reference numerals 402 and 502 designate thumbnails indicating the program information #1 and the play list information #1, respectively. The "mother" can use the menu display tag for mother 601 as a folder dedicated to herself, and freely register and delete data to be reproduced. In the same way, FIG. 7 shows an example in

FIG. 6 shows an example in which menu display is conducted by using the user-defined unified information #1 shown in FIG. 1. Reference numeral 601 designates a menu display tag for user #1 (who is supposed to be "mother" here). As appreciated from FIG. 1, reference numerals 402 and 502 designate thumbnails indicating the program information #1 and the play list information #1, respectively. The "mother" can use the menu display tag for mother 601 as a folder dedicated to herself, and freely register and delete data to be reproduced. In the same way, FIG. 7 shows an example in

FIG. 6 shows an example in which menu display is conducted by using the user-defined unified information #1 shown in FIG. 1. Reference numeral 601 designates a menu display tag for user #1 (who is supposed to be "mother" here). As appreciated from FIG. 1, reference numerals 402 and 502 designate thumbnails indicating the program information #1 and the play list information #1, respectively. The "mother" can use the menu display tag for mother 601 as a folder dedicated to herself, and freely register and delete data to be reproduced. In the same way, FIG. 7 shows an

FIG. 6 shows an example in which menu display is conducted by using the user-defined unified information #1 shown in FIG. 1. Reference numeral 601 designates a menu display tag for user #1 (who is supposed to be "mother" here). As appreciated from FIG. 1, reference numerals 402 and 502 designate thumbnails indicating the program information #1 and the play list information #1, respectively. The "mother" can use the menu display tag for mother 601 as a folder dedicated to herself, and freely register and delete data to be reproduced. In the same way, FIG. 7 shows an

FIG. 6 shows an example in which menu display is conducted by using the user-defined unified information #1 shown in FIG. 1. Reference numeral 601 designates a menu display tag for user #1 (who is supposed to be "mother" here). As appreciated from FIG. 1, reference numerals 402 and 502 designate thumbnails indicating the program information #1 and the play list information #1, respectively. The "mother" can use the menu display tag for mother 601 as a folder dedicated to herself, and freely register and delete data to be reproduced. In the same way, FIG. 7 shows an example in

PX-309

DTX-059

DTX-060

DTX-061

DTX-212

PX-006

PDX007-12



Priority Date of the '815 Patent

- During prosecution USPTO Confirmed that the '815 Patent met the conditions for the Dec. 2004 priority date as shown in File History (PX-012).

'815

United States Patent
et al.

(10) Patent No.: US 11,017,815 B2
(45) Date of Patent: May 25, 2021

(58) Field of Classification Search
USPC — 386/235, 240, 278, 280, 281, 282, 326, 386/353
See application file for complete search history.

(71) Applicant: Maxell, Ltd., Kyoto (JP)

(72) Inventor: Susumu Yoshida, Kawasaki (JP); Junji Shikawa, Chigasaki (JP); Hiroyuki Okamoto, Yokohama (JP)

(73) Assignee: Maxell, Ltd., Kyoto (JP)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: 16/883,124
(22) Filed: May 26, 2020

(65) Prior Publication Data
US 2020/026524 A1 Sep. 10, 2020

Related U.S. Application Data
(63) Continuation of application No. 16/221,908, filed on Dec. 17, 2019, now Pat. No. 10,579,554, which is a (Continued)

Foreign Application Priority Data
(30) Dec. 2, 2004 (JP) 2004-349264
Dec. 28, 2004 (JP) 2004-378767
Dec. 28, 2004 (JP) 2004-378768

(51) Int. Cl. (2006.01) G11B 27/00
(2006.01) G11B 27/00
(Continued)

(52) U.S. Cl. (2013.01) G11B 27/082
(2013.01) G11B 27/082
(Continued)

OTHER PUBLICATIONS
Fundango Media, LLC's S.P. 25 Invalidity Contentions which were filed Mar. 26, 2018 in the following litigation: *Maxell, Ltd. v. Fundango Media, LLC*, Civil Action No. 2:17-cv-07334-Ag-ESB (C.D. Cal.), filed Oct. 15, 2017.
(Continued)

Primary Examiner — Duquan Zhao
(74) Attorney, Agent, or Firm — Mattingly & Mohr, PC

(57) ABSTRACT
In order to provide a recording and reproducing device that allows a user to select and manage arbitrary play lists, a unit of management for managing all registered play list information and an upper management hierarchical level are added. The unit of management is adapted to be handled on the same level with unified information that indicates a reproductive range of all AV data. User-defined unified information is adapted to be handled on the added management hierarchical level. The user-defined unified information is formed to allow arbitrary reproductive ranges contained on a lower hierarchical level to be registered.

27 Claims, 9 Drawing Sheets

315

601 MOTHER

402

502

PX-006

**** FOREIGN APPLICATIONS *******

JAPAN 2004-378767 12/28/2004
JAPAN 2004-378768 12/28/2004
JAPAN 2004-349264 12/02/2004

**** IF REQUIRED, FOREIGN FILING LICENSE GRANTED ****
06/03/2020

Foreign Priority claimed ☒ Yes ☐ No	☐ Met after Allowance Initials	STATE OR COUNTRY JAPAN
35 USC 119(a-d) conditions met ☒ Yes ☐ No		
Verified and Acknowledged <u>/DAQUAN ZHAO/</u> Examiner's Signature		

PX-012

PDX007-13



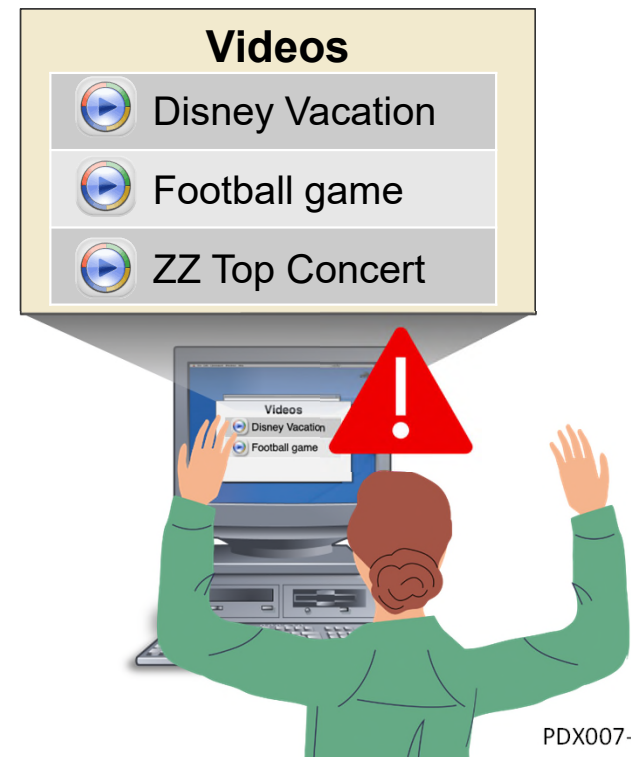
Invention of the '815 Patent



PROBLEM

Advances in computers and digital media around 2004 had resulted in large amounts of video data being transmitted, stored and viewed.

Techniques at that time did not make it easy for users to manage, customize and engage with these videos, intuitively and without interference from each other.



PDX007-14

Accused Functionalities of the Galaxy S23



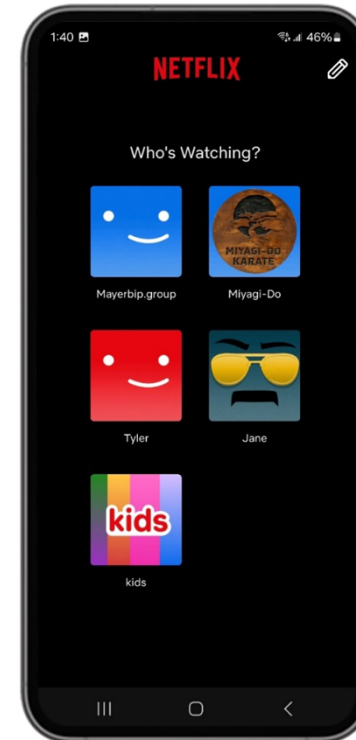
Claim 1: Samsung Gallery App

Claims 21 and 24: Preinstalled Netflix App



PX-054 at 59
PX-108
PX-296

**Claimed inventions
are critical to the
implementation of
personalized user
experiences in
Samsung Gallery and
Netflix applications
on S23**



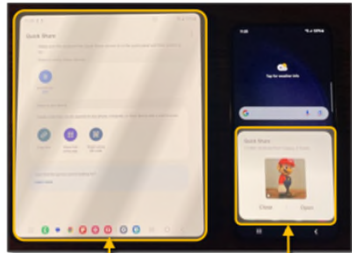
PX-108
PX-296

PDX007-15

Infringement Summary of Claim 1



The S23 receives video information wirelessly via WiFi or Bluetooth



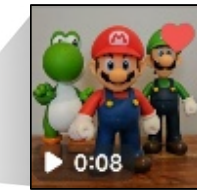
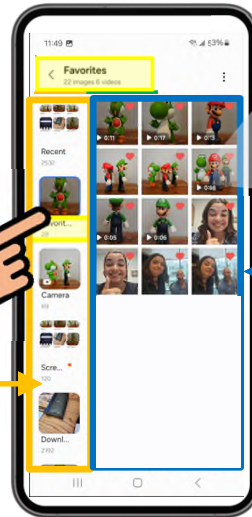
Samsung Galaxy Fold4 using Quick share Wi-Fi

S23 receives over Wi-Fi network the first video information

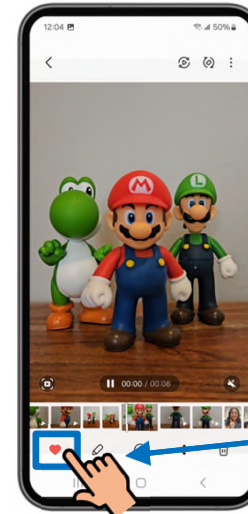
Selecting first character



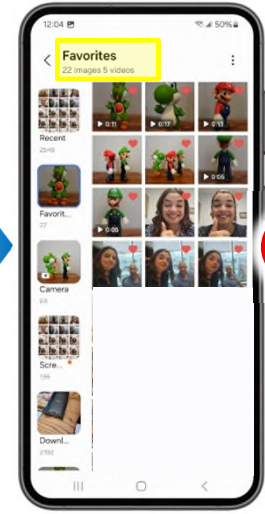
first area



Second area showing thumbnails for "Favorites" album



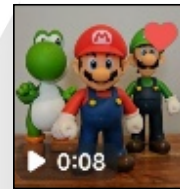
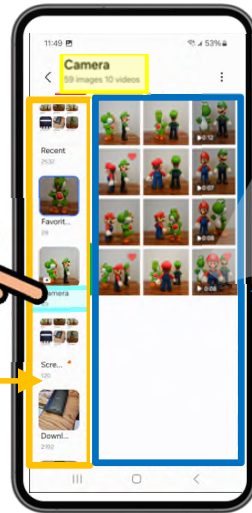
Removing video information



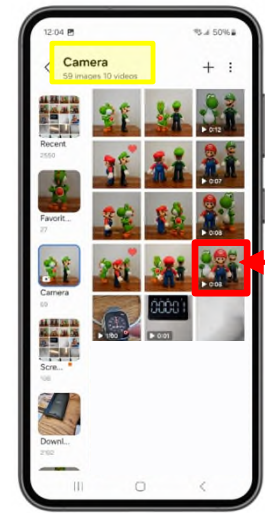
Selecting second character



first area



Second area showing thumbnails for "Camera" album



YML

One video information remains

PDX007-16