

# **Prosecution Effectiveness of TW Companies Before USPTO**

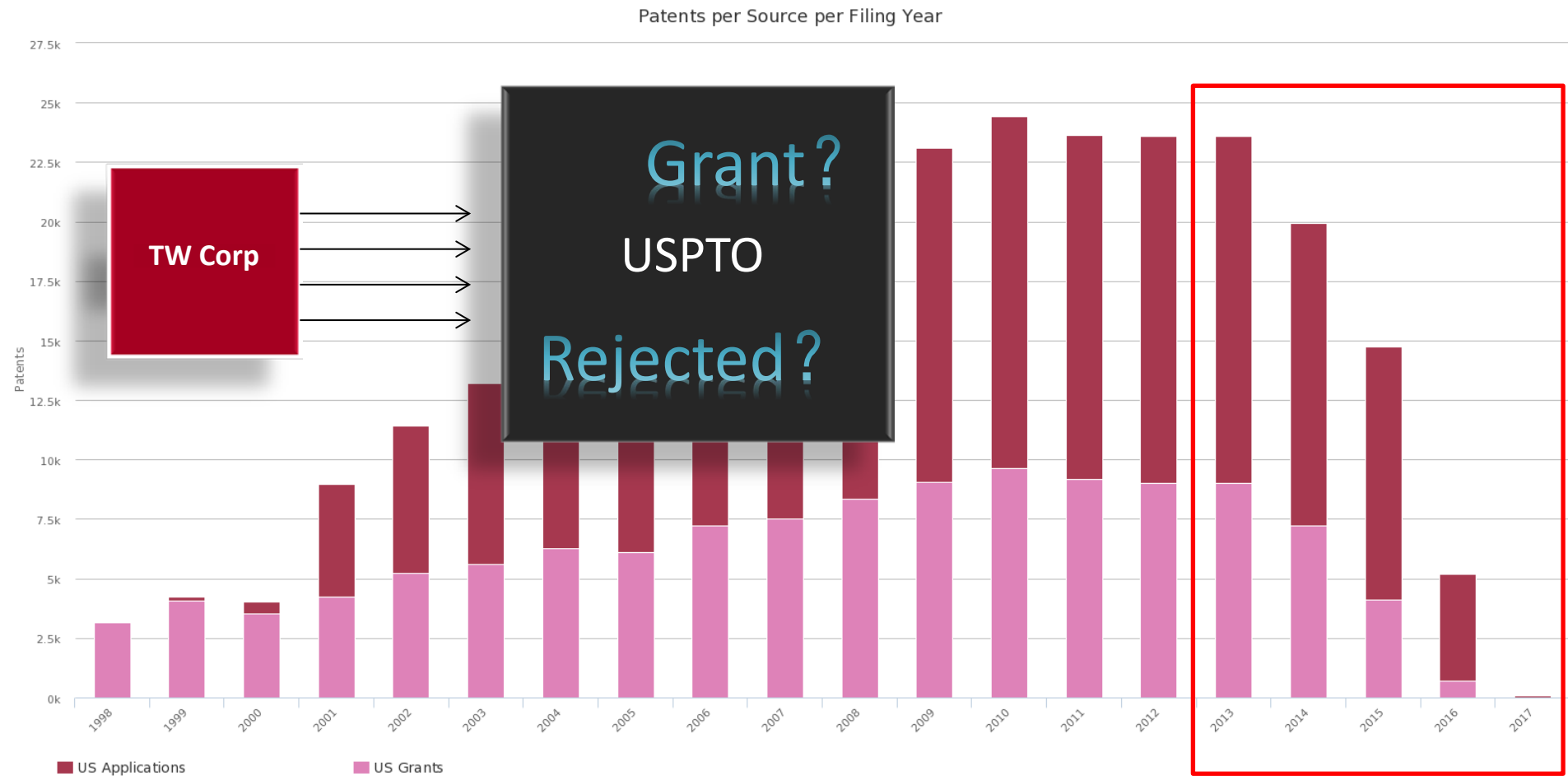
Miao Li

LexisNexis , Asia IP Consultant

# Agenda

1. Prosecution Big Data of TW Corp before USPTO
2. Prosecution Effectiveness of TW Corp before USPTO
3. Leveraging Big Data in Prosecution: 3 Real Cases

# 1. US Patent Filing Trend by TW Corp



# Grant Rate of Applications since 2013

ALLOWANCE RATE

**70.1%**

TOTAL NUMBER OF APPLICATIONS

**42275**

TOTAL

**19018** PATENTED APPLICATIONS

**8096** ABANDONED APPLICATIONS

**15161** PENDING APPLICATIONS

**Allowance rate: 81.9%**

Applications with Electronic File Histories\*

8300 Patent Granted Applications

1830 Abandoned Applications

18655 Pending Applications

**28785 Total Applications**

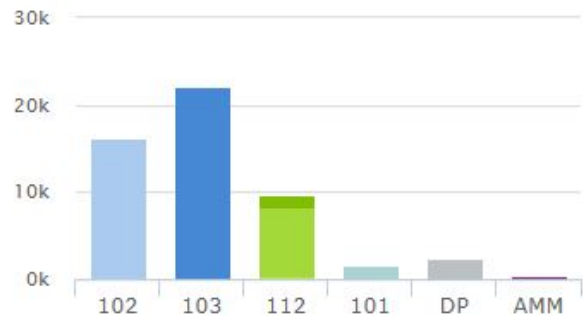
TW

CN

# Rejection Statistics

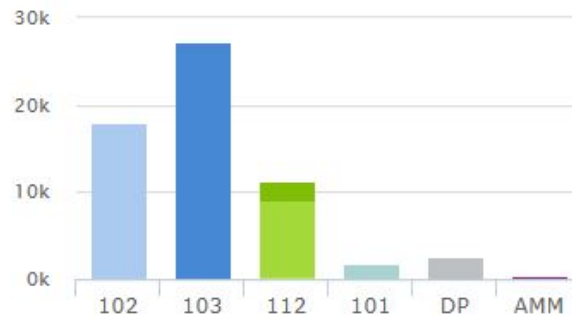
First Office Action Rejection Frequency

(29156 First Office Actions Analyzed)



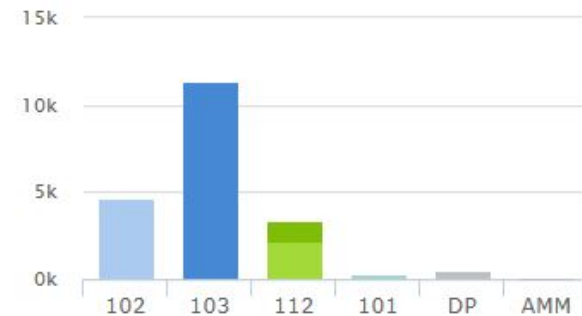
Non-final Office Action Rejection Frequency

(34908 Non-Final Office Actions Analyzed)



Final Office Action Rejection Frequency

(13214 Final Office Actions Analyzed)



## Reasons For Rejection

- 35 U.S.C. §102 Rejection
- 35 U.S.C. §103 Rejection
- 35 U.S.C. §112 First Paragraph Rejection
- 35 U.S.C. §112 Second Paragraph Rejection
- 35 U.S.C. §112 Fourth Paragraph Rejection
- 35 U.S.C. §112 Fifth Paragraph Rejection
- 35 U.S.C. §112 Sixth Paragraph Rejection

- 35 U.S.C. §101 Rejection
- Obviousness Type Double Patenting Rejection
- Statutory Type Double Patenting Rejection
- References Alice
- References Mayo
- References Myriad

# RCE

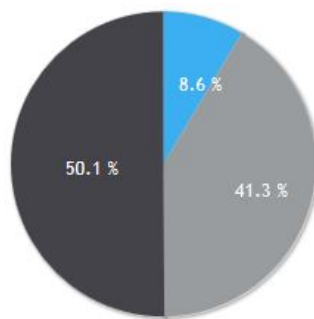
Applications with at least one RCE before Patent Issuance/Abandonment

→ **11.4%**

3077 out of 27114 case/s

YEAR-OVER-YEAR BREAKDOWN

OUTCOME AFTER 1st RCE



One or more subsequent RCE's filed  
Immediate allowance  
Other

RCE'd Applications with Two or More RCE's before Patent Issuance/Abandonment

**8.6%**

265 out of 3077 case/s

YEAR-OVER-YEAR BREAKDOWN

Applications where a first RCE results in immediate Notice of Allowance

→ **41.3%**

1271 out of 3077 case/s

YEAR-OVER-YEAR BREAKDOWN

# Interview Statistics

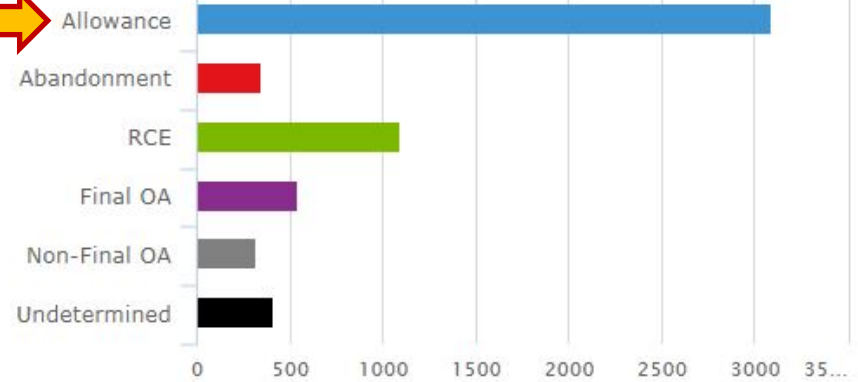
Patented & Abandoned Patented Abandoned Pending All Applications

Percentage of Applications with at least one Interview

13.7%

5791 out of 42275 applications

Following the Interview, the Next Significant Event Was:



# Appeal Statistics

Patented & Abandoned

Patented

Abandoned

Pending

All Applications

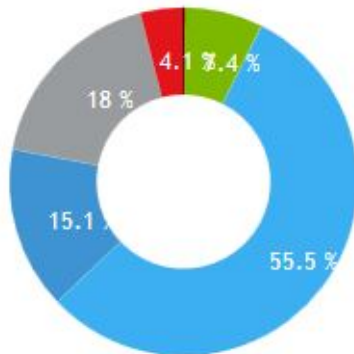
Total applicant wins

97

Total applicant losses

52

APPEAL EXIT BREAKDOWN



TOTAL NUMBER OF APPEAL CYCLES:

245

APPEAL CYCLES IN 42275 APPLICATIONS

PERCENTAGE OF APPLICATIONS WITH AT LEAST ONE APPEAL CYCLE:

0.6%

243 OUT OF 42275 APPLICATIONS

CHANCES OF WINNING ON APPEAL:

65.1%





# About Appeal

Asian companies have rarely filed appeals.

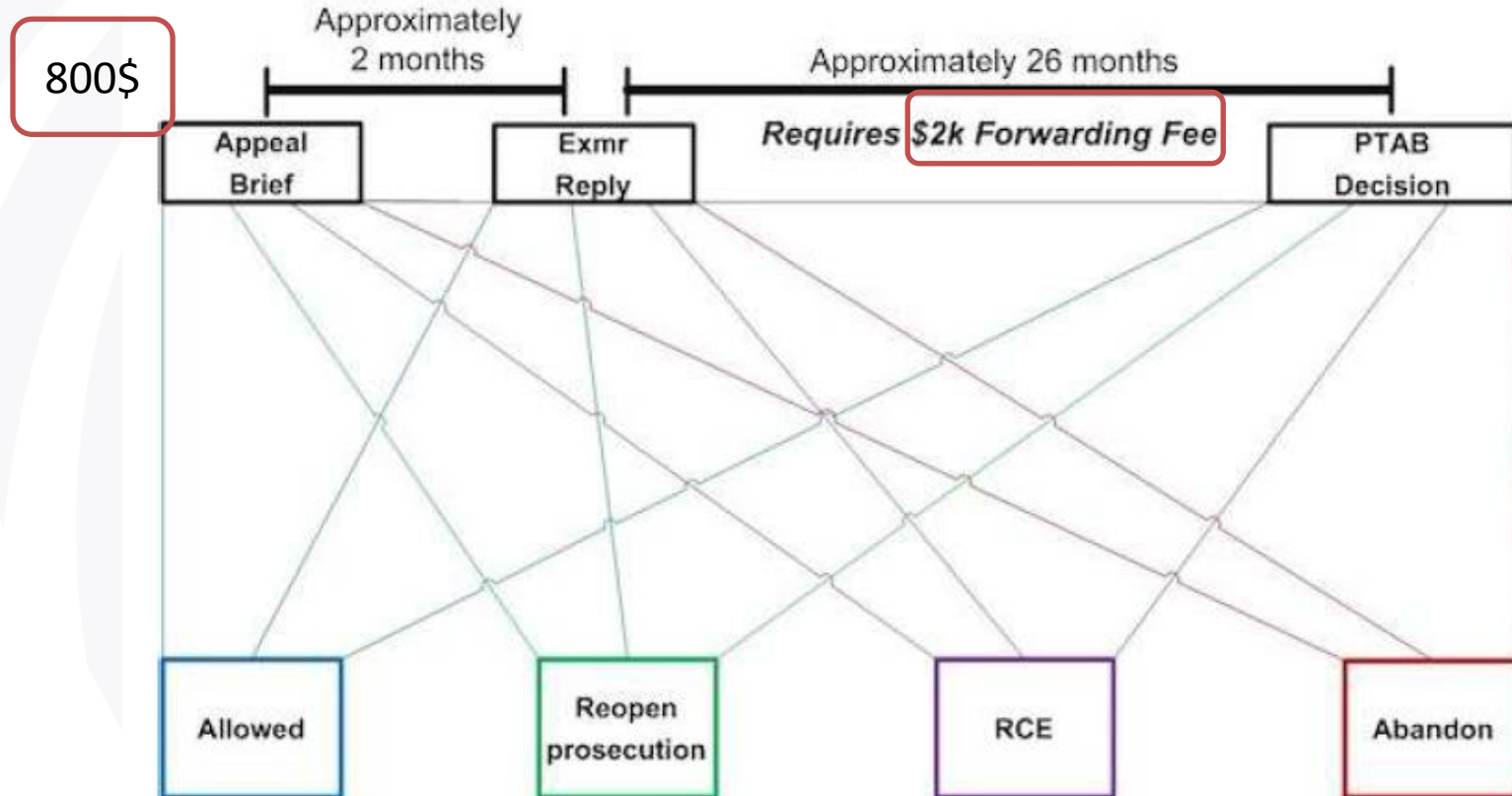
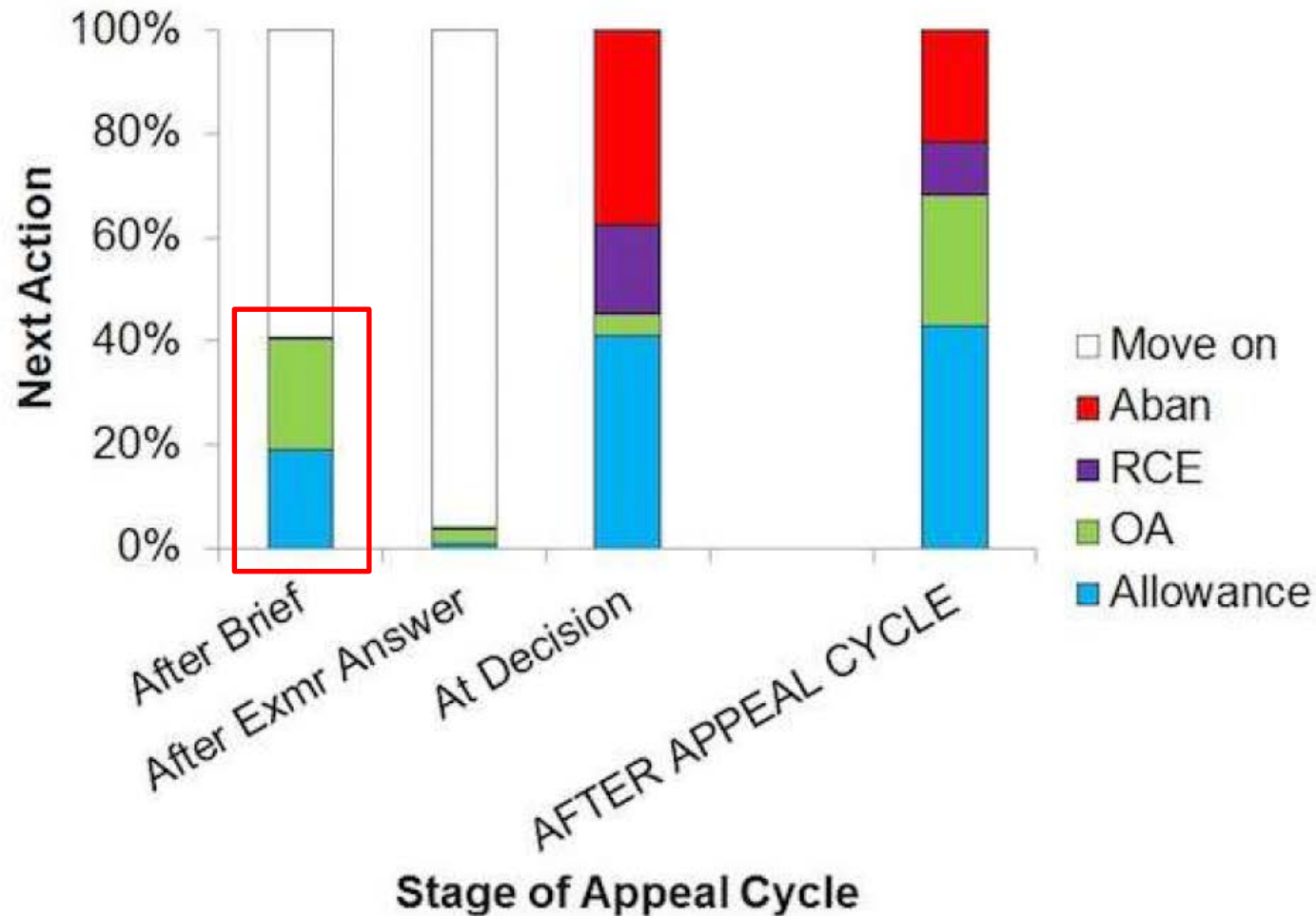


Figure 1

Ref: Ex Parte Appeal as a Potential Means to Quick Allowances

# USTPO Overall Appeal Statistics



Ref: Ex Parte Appeal as a Potential Means to Quick Allowances

# Appeal Statistics

Notice of Appeal:

7.4%

18 of 245 cycles

NOT COUNTED AS WIN/LOSS: CASE RESOLVED TOO EARLY IN PROCESS

The next significant event was:

Allowance	9
Abandonment	0
RCE	3
Final Office Action	0
Non-final Office Action	0
Undetermined	6

Pre-Appeal Brief Request for Review:

55.5%

136 of 245 cycles

The next significant event was:

Allowance	33 (Applicant Win)
Abandonment	17 (Applicant Loss)
RCE	22 (Applicant Loss)
Final Office Action	4 (Applicant Win)
Non-final Office Action	31 (Applicant Win)
Undetermined	29

Appeal Brief:

15.1%

37 of 245 cycles

The next significant event was:

Allowance	18 (Applicant Win)
Abandonment	1 (Applicant Loss)
RCE	0 (Applicant Loss)
Final Office Action	0 (Applicant Win)
Non-final Office Action	6 (Applicant Win)
Undetermined	12

Examiner's Reply:

18%

44 of 245 cycles

The next significant event was:

Allowance	0 (Applicant Win)
Abandonment	9 (Applicant Loss)
RCE	2 (Applicant Loss)
Final Office Action	0 (Applicant Win)
Non-final Office Action	0 (Applicant Win)
Undetermined	33

BPAI/PTAB Decision:

4.1%

10 of 245 cycles

The next significant event was:

Allowance	5 (Applicant Win)
Abandonment	1 (Applicant Loss)
RCE	0 (Applicant Loss)
Final Office Action	0 (Applicant Win)
Non-final Office Action	0 (Applicant Win)
Undetermined	4

ICATIONS

PEAL CYCLE:

NS

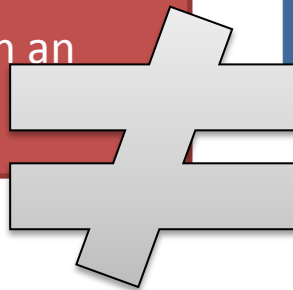
## 2. Prosecution Effectiveness - Examiner Profile

### Examiner A: Paul A Thatcher

- **Art Unit: 2172**
- **Allowance Rate: 8.6%**
- Average time to allowance:  
**2 year, 9 months**
- Average # of Office Actions:  
**2.6**
- Percent of cases with an appeal cycle: **6.9%**

### Examiner B: Matthew Ell

- **Art Unit: 2172**
- **Allowance Rate: 62.8%**
- Average time to allowance:  
**2 years, 5 months**
- Average # of Office Actions:  
**3.1**
- Percent of cases with an appeal cycle: **15.7%**

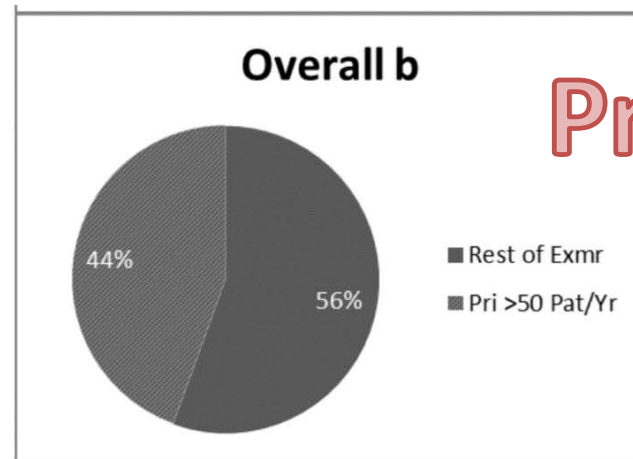
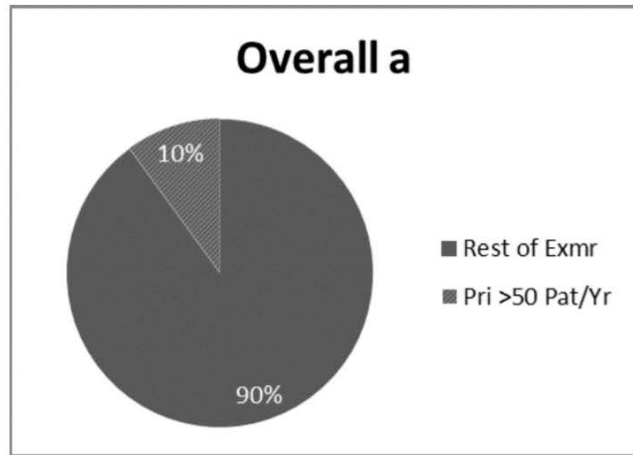




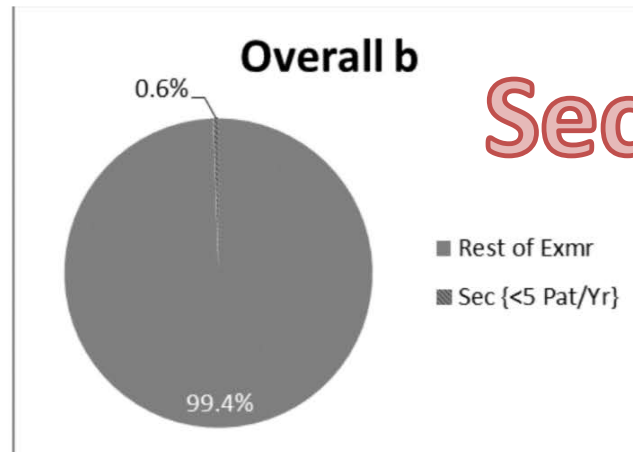
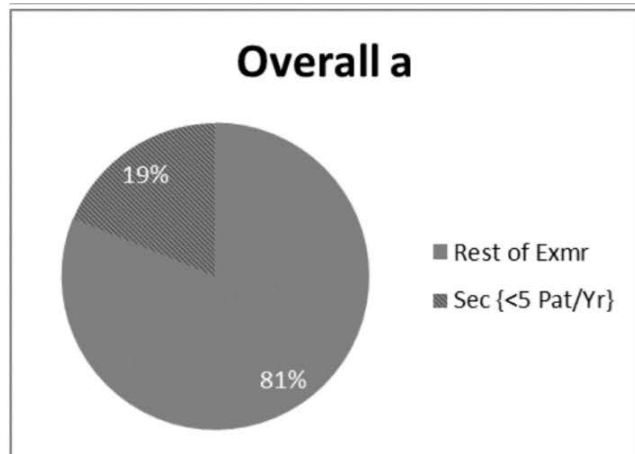
# Examiner Productivity System

	0 RCEs	1 RCE	2+ RCEs
Non-Final OA	1.25	1.00	0.75
Final OA	0.25	0.25	0.25
RCE	0.5	0.5	0.5
Examiner's Answer	0.5	0.5	0.5
Abandonment	0.5	0.5	0.5
Allowance	0.5	0.5	0.5

# Primary & Secondary Examiners



Primary



Secondary

# A-Type Examiner ( Grant Rate > 70% )

ALLOWANCE RATE

82.8% 



TOTAL NUMBER OF APPLICATIONS

24264

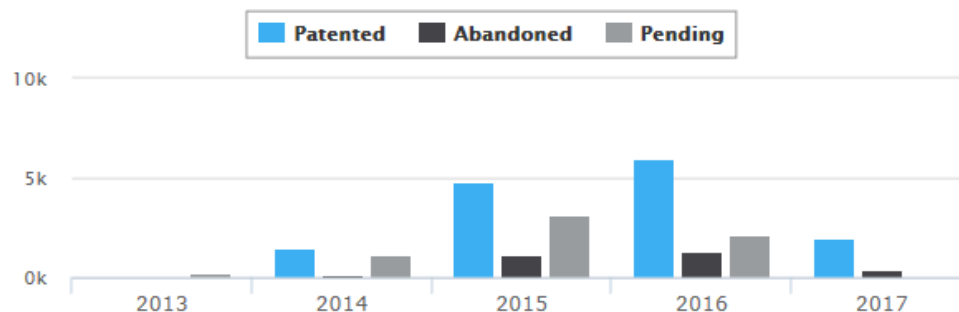
TOTAL

14440 PATENTED APPLICATIONS

3006 ABANDONED APPLICATIONS

6818 PENDING APPLICATIONS

TOTAL NUMBER OF APPLICATIONS - OVER TIME



Granted/abandoned shown in year granted/abandoned.  
Pending shown in year filed.



# C-Type Examiner ( Grant Rate < 30% )

Patented Abandoned Pending

Search:

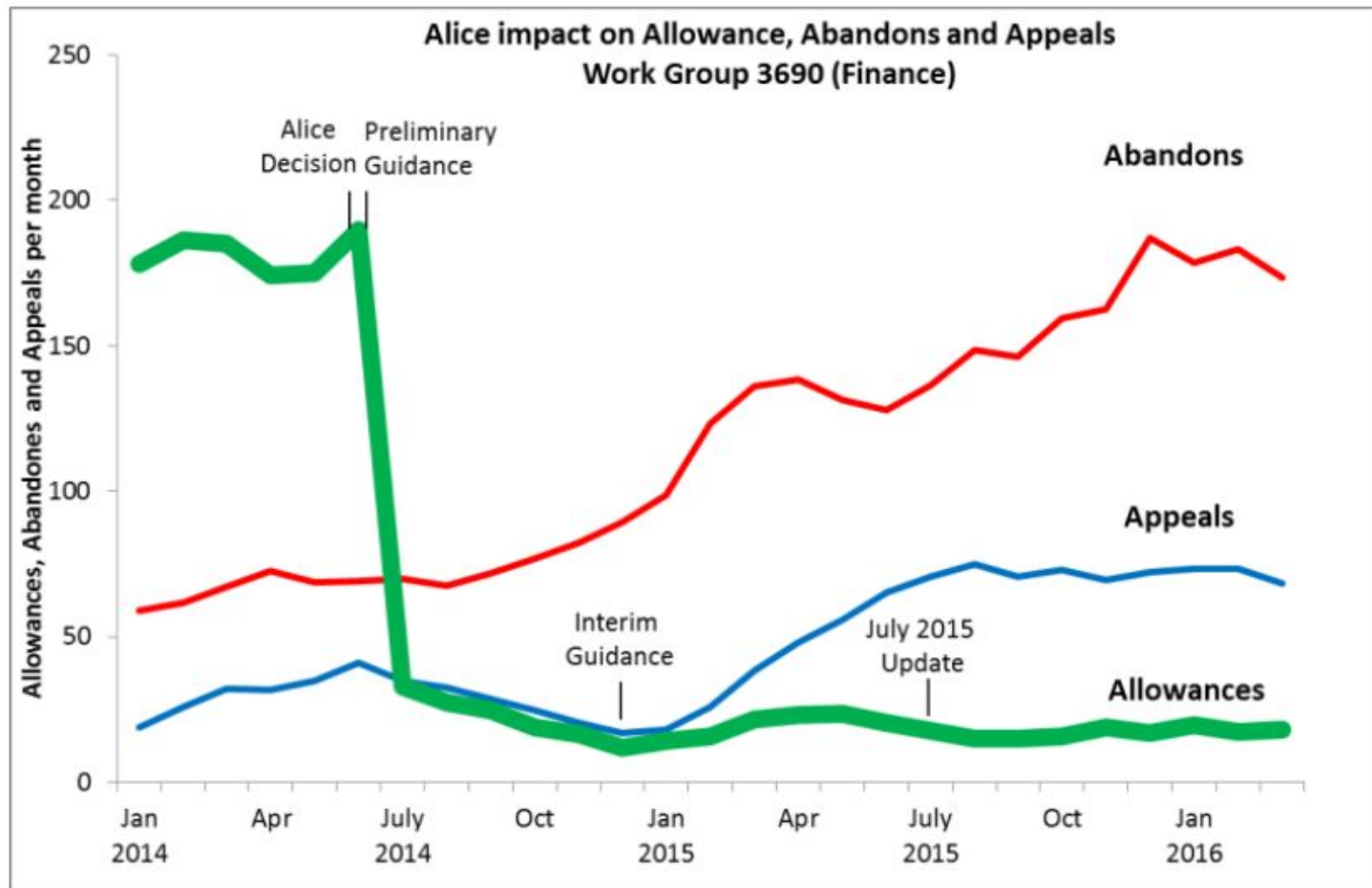


1 - 10 OF 1270

Application	Filing Date	Status	Number of Office Actions
13/740,488	2013-01-14	Response to Non-Final Office Action Entered and Forwarded to Examiner	7 office actions (Examiner average is 2.6)
13/798,581	2013-03-13	Final Rejection Mailed	6 office actions (Examiner average is 3.1)
13/755,376	2013-01-31	Final Rejection Mailed	6 office actions (Examiner average is 3)
13/773,575	2013-02-21	Final Rejection Mailed	6 office actions (Examiner average is 2.6)
13/773,617	2013-02-21	Docketed New Case - Ready for Examination	6 office actions (Examiner average is 2.6)
13/974,246	2013-08-23	Final Rejection Mailed	6 office actions (Examiner average is 2.1)
14/081,580	2013-11-15	Docketed New Case - Ready for Examination	6 office actions (Examiner average is 2.1)
14/109,318	2013-12-17	Final Rejection Mailed	6 office actions (Examiner average is 2.1)
13/773,605	2013-02-21	Final Rejection Counted, Not Yet Mailed	5 office actions (Examiner average is 4.5)
13/828,489	2013-03-14	Non Final Action Mailed	5 office actions (Examiner average is 4.5)



# Example: 3690 Art Unit



Ref: Surviving Alice in the Finance Arts, by Mark Nowotarski

# TW Corp in 3690

ALLOWANCE RATE

0% 



TOTAL NUMBER OF APPLICATIONS

23

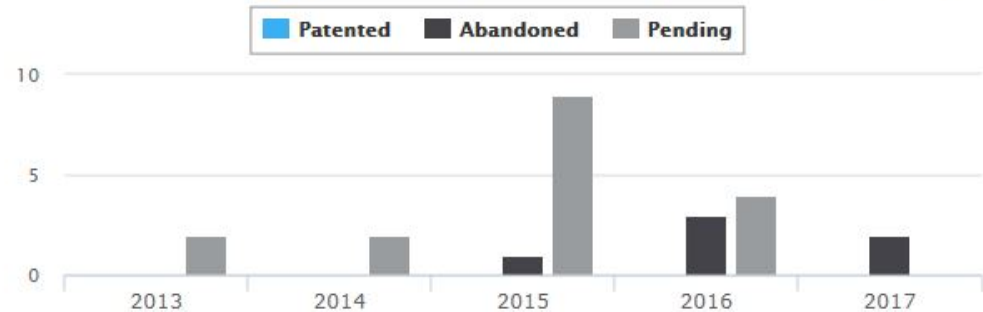
TOTAL

0 PATENTED APPLICATIONS

6 ABANDONED APPLICATIONS

17 PENDING APPLICATIONS

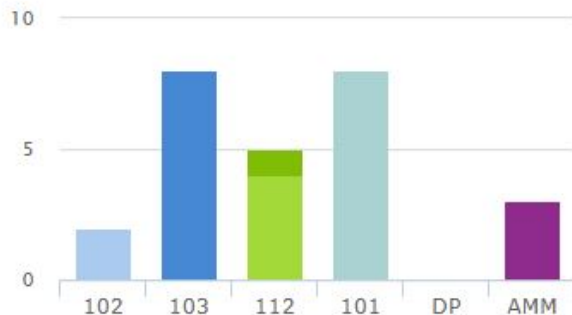
TOTAL NUMBER OF APPLICATIONS - OVER TIME



Granted/abandoned shown in year granted/abandoned.  
Pending shown in year filed.

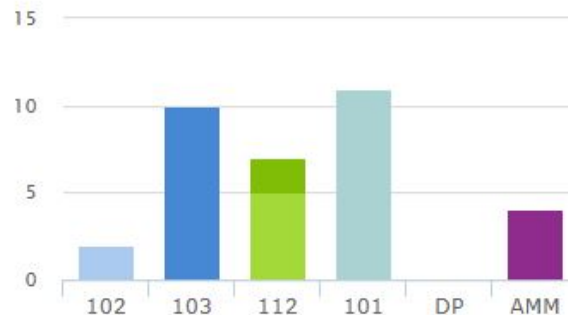
First Office Action Rejection Frequency

(10 First Office Actions Analyzed)



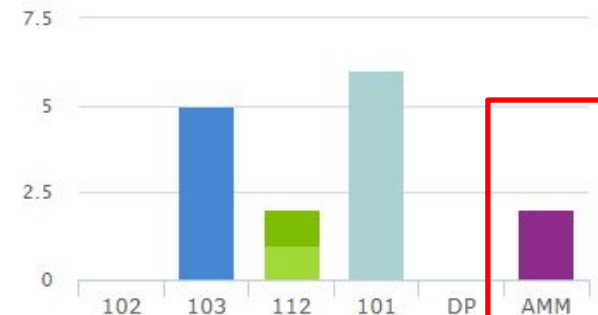
Non-final Office Action Rejection Frequency

(13 Non-Final Office Actions Analyzed)



Final Office Action Rejection Frequency

(8 Final Office Actions Analyzed)



# How to Overcome Alice Rejection ?

APPLICATION: 13/915,173

EXAMINER: Chang, Edward

EXAMINER'S ALLOWANCE RATE: 53.2%

ART UNIT: 3696

TITLE: MOBILE DEVICE AND CONTROL METHOD THEREOF

STATUS: Patented



# Preventive Measures When Drafting

1. A method of navigating a self-driving vehicle to a destination

## PathWays™


☐ Technology Center Group ☒ Art Unit ☐ USPC ☐ CPC

39.0% Top 5 Art Unit Candidates

69.0 % Technology Center Candidates

20.0% ART UNIT 3661 : DATA PROCESSING: VEHICLES, NAVIGATION, AN... ALLOWANCE RATE: 84.69%

 [Year-over-Year Breakdown](#)

Wordgram	Office Actions Per Allowance	Filing to First Action Time	First Action to Allowance Time
	1.1901	1 year 8 month 24 days	10 month 26 days



# 3. 3 Real Cases

100%

ACCURACY

1. App. No.: 14/303,\*\*\*

Suggested: filing RCE;

Actual: filed RCE and got grant right after.

2. App. No.: 14/572,\*\*\*

Suggested: filing RCE;

Actual: filed RCE and got grant right after.

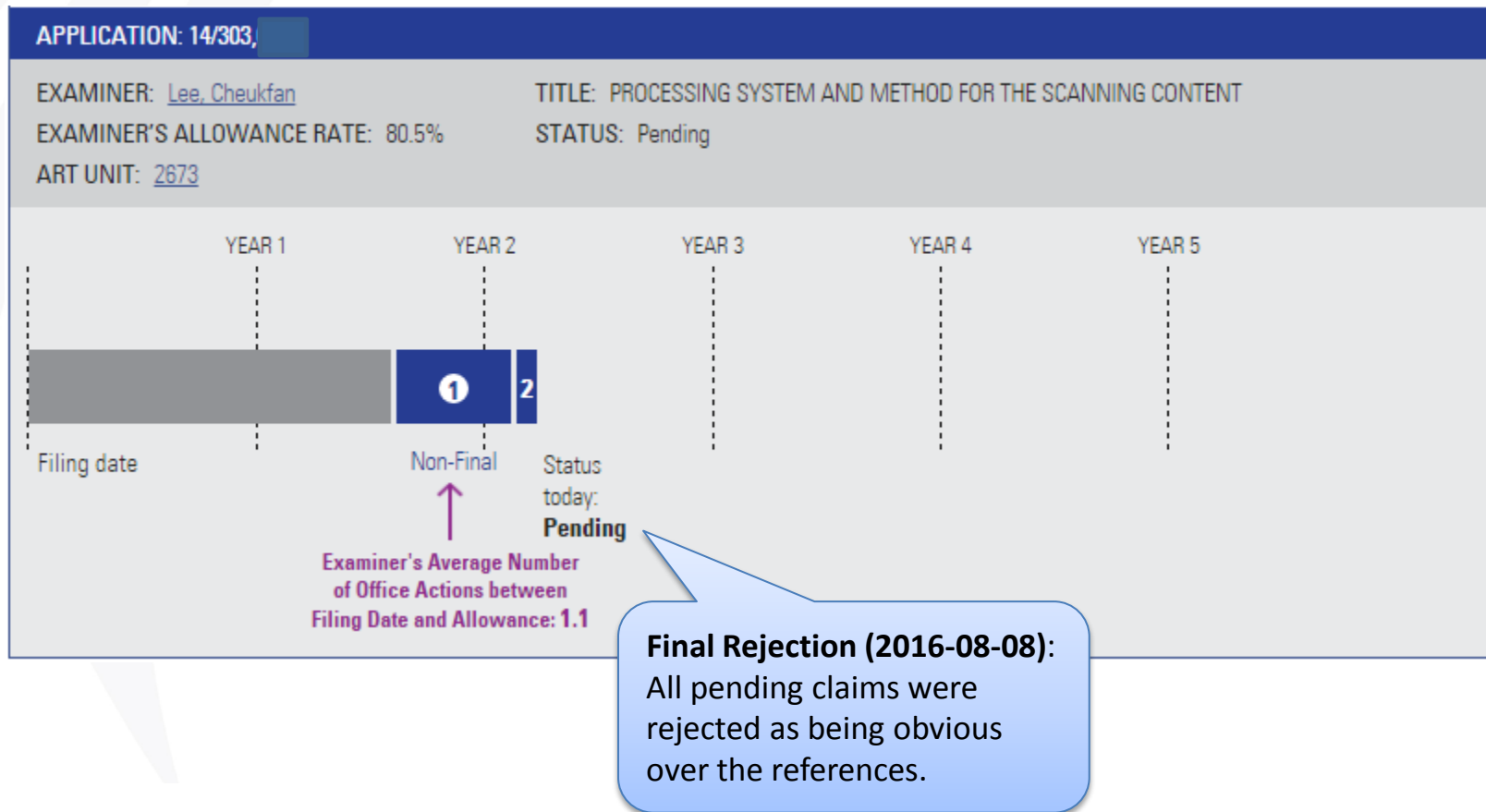
3. App. No.: 14/286,\*\*\*

Suggested: ABD;

Actual: still filed RCE and got rejection again.

# 1) 14/303,\*\*\*

TITLE: PROCESSING SYSTEM AND METHOD FOR THE SCANNING CONTENT



# Examiner Data

EXAMINER: [Lee, Cheukfan](#)

EXAMINER'S ALLOWANCE RATE: 80.5%

Art Unit Search Results for


2673 - FACSIMILE AND STATIC PRESENTATION PROCESSING

Allowance rate: 78.8%

## REQUEST FOR CONTINUED EXAMINATION


Applications with at least one RCE before  
Patent Issuance/Abandonment

9.7% 87 out of 902 applications

 [Year-over-Year Breakdown](#)


RCE'd Applications with Two or More  
RCE's before Patent  
Issuance/Abandonment

21.8% 19 out of 87 RCE'd cases

 [Year-over-Year Breakdown](#)

Applications where a first RCE results in  
immediate Notice of Allowance

46% 40 out of 87 RCE'd cases

 [Year-over-Year Breakdown](#)

Not many applications  
with RCE, but a high grant  
rate out of a first RCE.

# Examiner Data

Percentage of Applications with at least one AFCP 2.0 request before Patent Issuance/Abandonment

1%  
9 out of  
902 applications

Following  
the request,  
the Next  
Significant  
Event Was:

Allowance (Applicant Win)	<u>5</u>
Advisory Action (Applicant Lost)	<u>4</u>
Other	0

Percentage of Applications with at least one Interview before Patent Issuance/Abandonment

12.4%  
112 out of  
902 applications

Following  
the  
Interview,  
the Next  
Significant  
Event Was:

Allowance	<u>62</u>
Abandonment	<u>7</u>
RCE	<u>6</u>
Final Office Action	<u>8</u>
Non-Final Office Action	<u>14</u>
Undetermined	<u>15</u>

## A "NICE" Examiner



# Invention per se

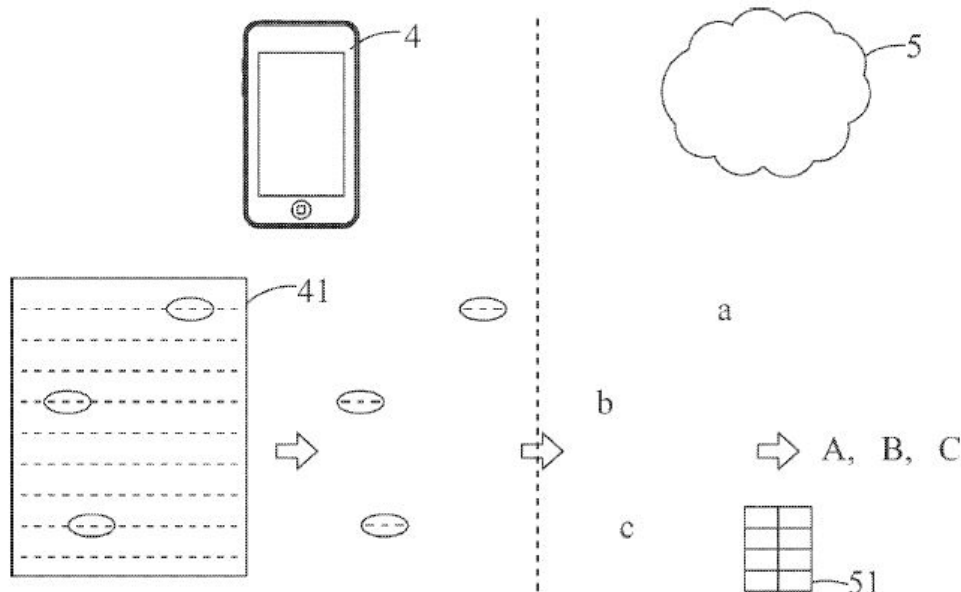


TABLE 2

Selecting way	Content type	Processing ways or tasks
Circling	Telephone number	Storing the telephone number to the address book
	Terminology	Inquiring Wiki

TABLE 3

Selecting way	Content type	Processing ways or tasks
Underlining	English vocabulary	Translating the English vocabulary into Chinese
	Web address	Connecting to the page of the web address

TABLE 4

Selecting way	Content type	Processing ways or tasks
Fluorescent mark	Skype account address	Storing the Skype account
		Storing the address

# Suggestions & Actual Response

	Suggestions we made (2016-09-30)	Response by Prospect (2016-11-08)
Amendment:	XXX	followed our suggestion and added another related limitation
Arguments:	References fail to disclose that a plurality of task tables corresponding to a plurality of ways of selecting the area <b>respectively</b> . Emphasize the benefit out of corresponding different selected ways to different task table, i.e., enabling an efficient and structurized way of processing and storing a scanned document.	Followed our suggestion
Response:	AFCP (P3). Upon receiving advisory action afterwards, then file RCE.	Filed RCE
Note:	<b>About AFCP timing:</b> File an AFCP response <b>within two months</b> of the final office action's mailing date to minimize the impact of extension fees.	

# Outcome



## UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

### NOTICE OF ALLOWANCE AND FEE(S) DUE

60601 7590 01/18/2017  
Muncy, Geissler, Olds & Lowe, P.C.  
4000 Legato Road  
Suite 310  
FAIRFAX, VA 22033

EXAMINER

LEE, CHEUKFAN

ART UNIT

PAPER NUMBER

2673

DATE MAILED: 01/18/2017

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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14/303,

06/12/2014

Li Huang

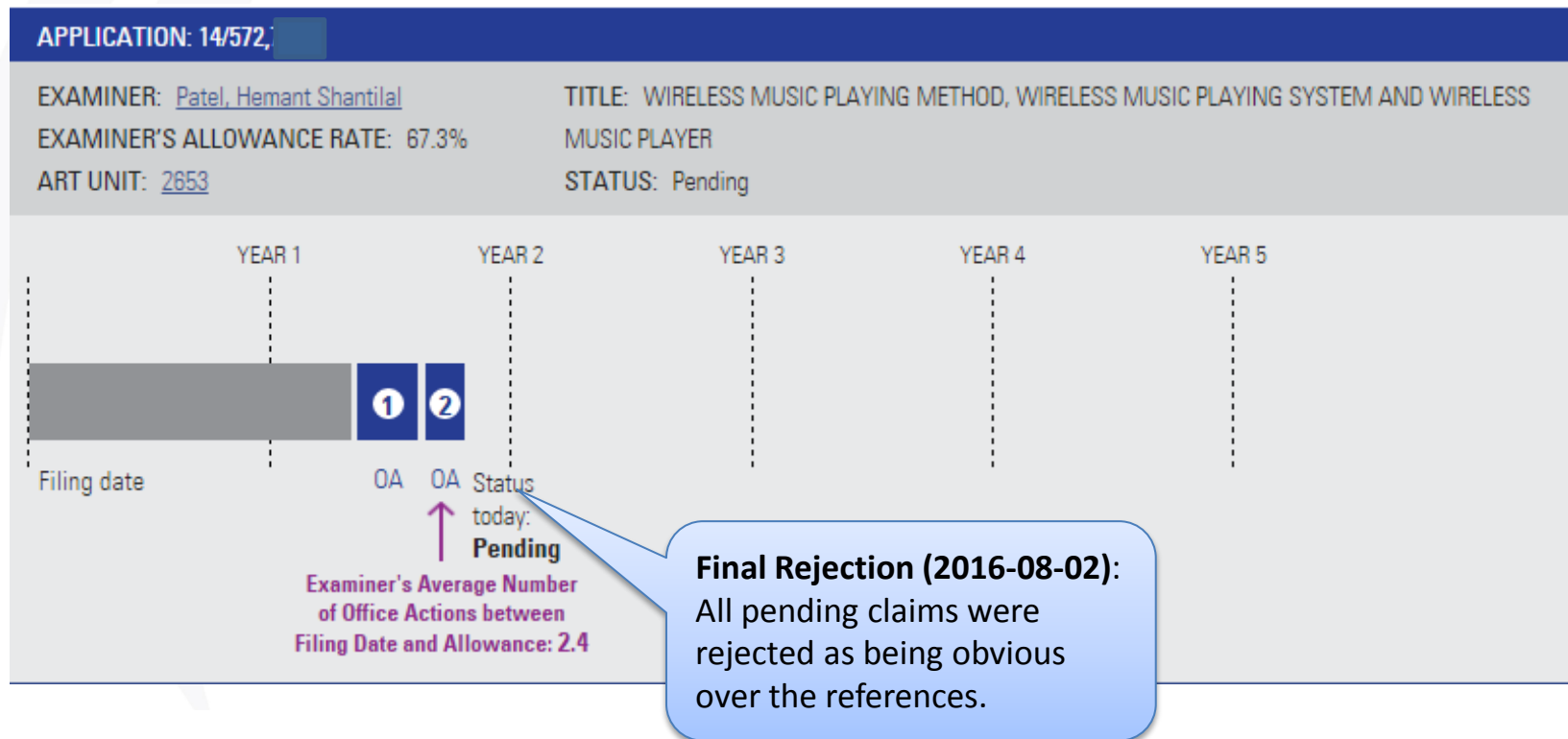
4994/0328PUS1

2635

TITLE OF INVENTION: PROCESSING SYSTEM AND METHOD FOR THE SCANNING CONTENT

## 2) 14/572,\*\*\*

TITLE: WIRELESS MUSIC PLAYING METHOD, WIRELESS MUSIC PLAYING SYSTEM AND WIRELESS MUSIC PLAYER



# Examiner Data

EXAMINER: [Patel, Hemant Shantilal](#)

EXAMINER'S ALLOWANCE RATE: 67.3%

Art Unit Search Results for


**2653 - TELEPHONIC COMMUNICATIONS**

Allowance rate: 85.1%

## REQUEST FOR CONTINUED EXAMINATION


Applications with at least one RCE before  
Patent Issuance/Abandonment

**38.7%** [207](#) out of 535 applications

 [Year-over-Year Breakdown](#)


RCE'd Applications with Two or More  
RCE's before Patent  
Issuance/Abandonment

**32.9%** [68](#) out of 207 RCE'd cases

 [Year-over-Year Breakdown](#)

Applications where a first RCE results in  
immediate Notice of Allowance

**35.3%** [73](#) out of 207 RCE'd cases

 [Year-over-Year Breakdown](#)

A high percentage of  
applications with RCE

# Examiner Data

Percentage of Applications with at least one Interview before Patent Issuance/Abandonment

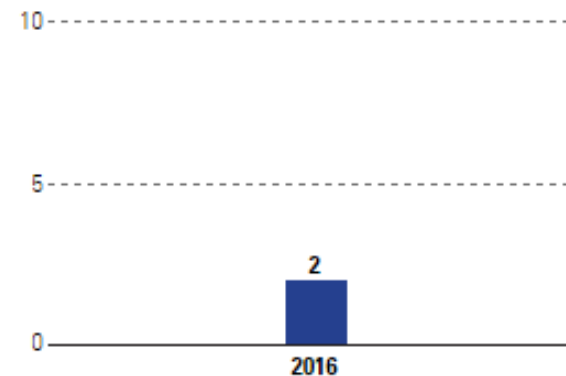
26.5%  
142 out of  
535 applications

Following the Interview, the Next Significant Event Was:

Allowance	<u>64</u>
Abandonment	<u>5</u>
RCE	<u>28</u>
Final Office Action	<u>29</u>
Non-Final Office Action	<u>13</u>
Undetermined	<u>3</u>

**A TOUGH Examiner**, but:  
1. may get a good chance in requesting interview;  
2. will not wait long upon filing a RCE.

**Backlog of RCE's Awaiting Next Examination**  
(per year by RCE filing date)



# Invention per se

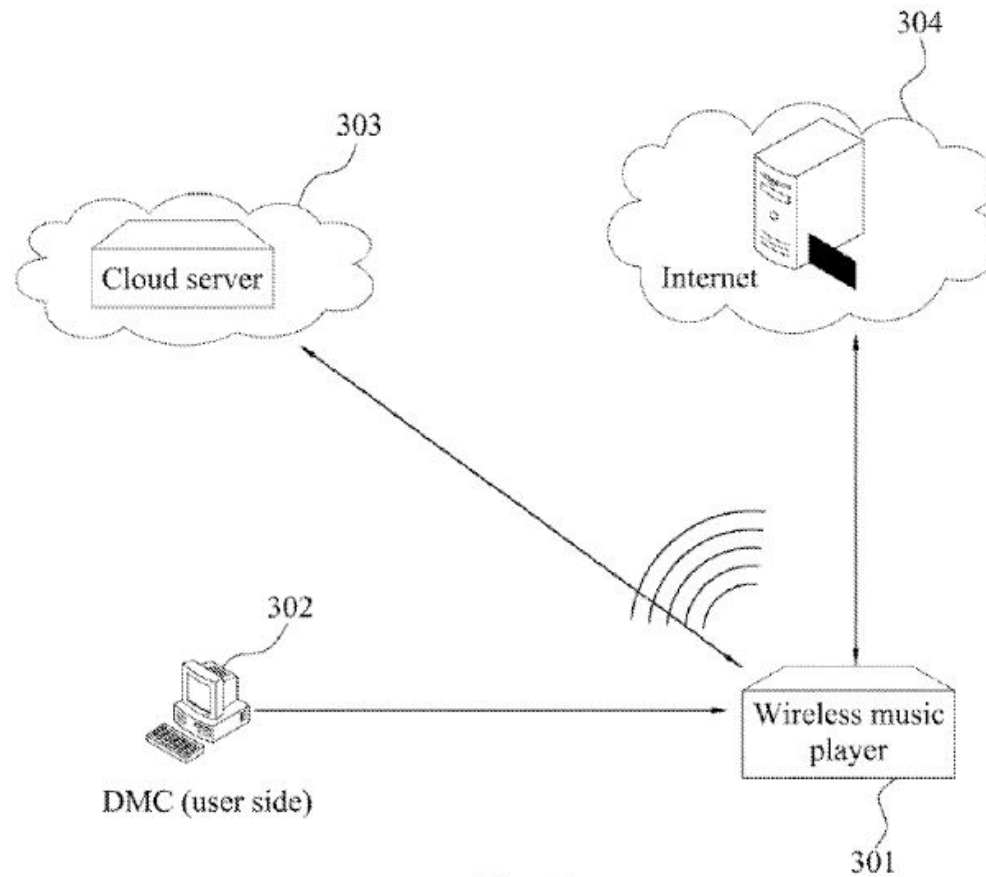


Fig. 3

# Suggestions & Actual Response

	<b>Suggestions we made (2016-09-30)</b>	<b>Response by Prospect (2016-10-30)</b>
Arguments:	To realize automatically classified playing according to user preference setting (time, source, sound volume and effect, etc.) in advance, thereby significantly improving user experience without the need of physical manipulation afterwards.	Partly followed our suggestion
Response:	Draft claim amendments, request a pre-review interview with the Examiner, and seek the Examiner's opinion about the draft claims. If he's ok, then file RCE.	Filed RCE
Note:	Given the examiner data, it is worth filing a RCE if the invention is important to applicant, but we would suggest a pre-review interview before the RCE filing.	



# Outcome



## UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

### NOTICE OF ALLOWANCE AND FEE(S) DUE

60589 7590 11/23/2016  
JAMES O'SULLIVAN  
Room 1901, 19/F, Lee Garden One, 33 Hysan Avenue,  
Causeway Bay  
Hong Kong,  
HONG KONG

24 DAYS after  
the response

EXAMINER

PATEL, HEMANT SHANTILAL

ART UNIT

PAPER NUMBER

2653

DATE MAILED: 11/23/2016

APPLICATION NO.

FILING DATE

FIRST NAMED INVENTOR

ATTORNEY DOCKET NO.

CONFIRMATION NO.

14/572;

12/16/2014

Chuan-Yi CHANG

TWT03633/US

1053

TITLE OF INVENTION: WIRELESS MUSIC PLAYING METHOD, WIRELESS MUSIC PLAYING SYSTEM AND WIRELESS MUSIC PLAYER

# 3) 14/286,\*\*\*

TITLE: AMOLED DISPLAY PANEL, METHOD OF FABRICATING FILM LAYER AND DISPLAY APPARATUS

APPLICATION: 14/286, [REDACTED]

EXAMINER: [Schoenholtz, Joseph](#)

EXAMINER'S ALLOWANCE RATE: 89.5%

ART UNIT: [2893](#)

TITLE: AMOLED DISPLAY PANEL, METHOD OF FABRICATING FILM LAYER AND DISPLAY APPARATUS

STATUS: Pending



Examiner's Average Number  
of Office Actions between  
Filing Date and Allowance: **1.1**

The 6<sup>th</sup> OA and Examiner  
cited 9 references!  
**Tough examiner?**

# Examiner Data

EXAMINER: [Schoenholtz, Joseph](#)

EXAMINER'S ALLOWANCE RATE: 89.5%

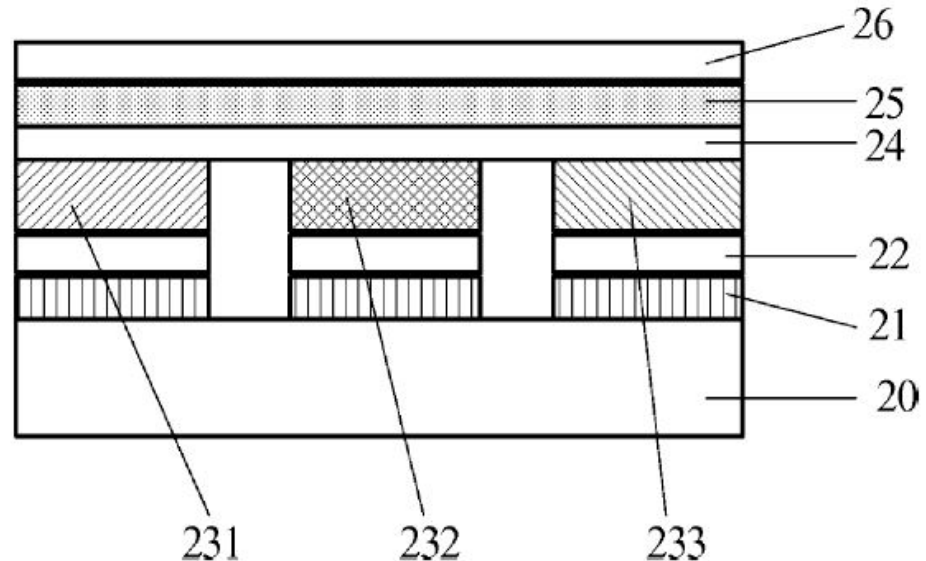
2893 - SEMICONDUCTOR DEVICE MANUFACTURING:  
PROCESS

**Allowance rate: 76.8%**

Name	Allow Rate	% RCE	% Appeal	Time from 1st OA to Allowance	Total Cases
SAMSUNG	95.5%	4.8%	0%	7 M	30
LG	100%	0%	0%	6 M	15
IBM	100%	9.1%	0%	4 M	18
TSMC	100%	0%	0%	7 M	10
MICRON	100%	28.6%	0%	6 M	11

# Why?

1. The original Claim 1 is too broad. Examiner cited new references each time, to show the invention is basically claiming prior art;
2. Applicant made very minor amendments each time;
3. Had 2 interviews but did not prepare well (cannot answer questions presented by Examiner during the interviews);
4. The application was not drafted well: invention not sufficiently disclosed and nothing in the specification can support a further narrower amendment.



**“NICE” Examiner  
Irritated!**

# 3. Response & Outcome

	Suggestions we made (2016-10-14)	Response by Prospect (2016-10-28)
Response:	ABD: neither RCE nor Appeal will work	Requested another interview (not successful), and filed RCE

<b>Office Action Summary</b>	<b>Application No.</b> 14/286,	<b>Applicant(s)</b> XIONG ET AL.	
	<b>Examiner</b> Joe Schoenholtz	<b>Art Unit</b> 2893	<b>AIA (First Inventor to File) Status</b> Yes

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTHS FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONE Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed earned patent term adjustment. See 37 CFR 1.704(b).

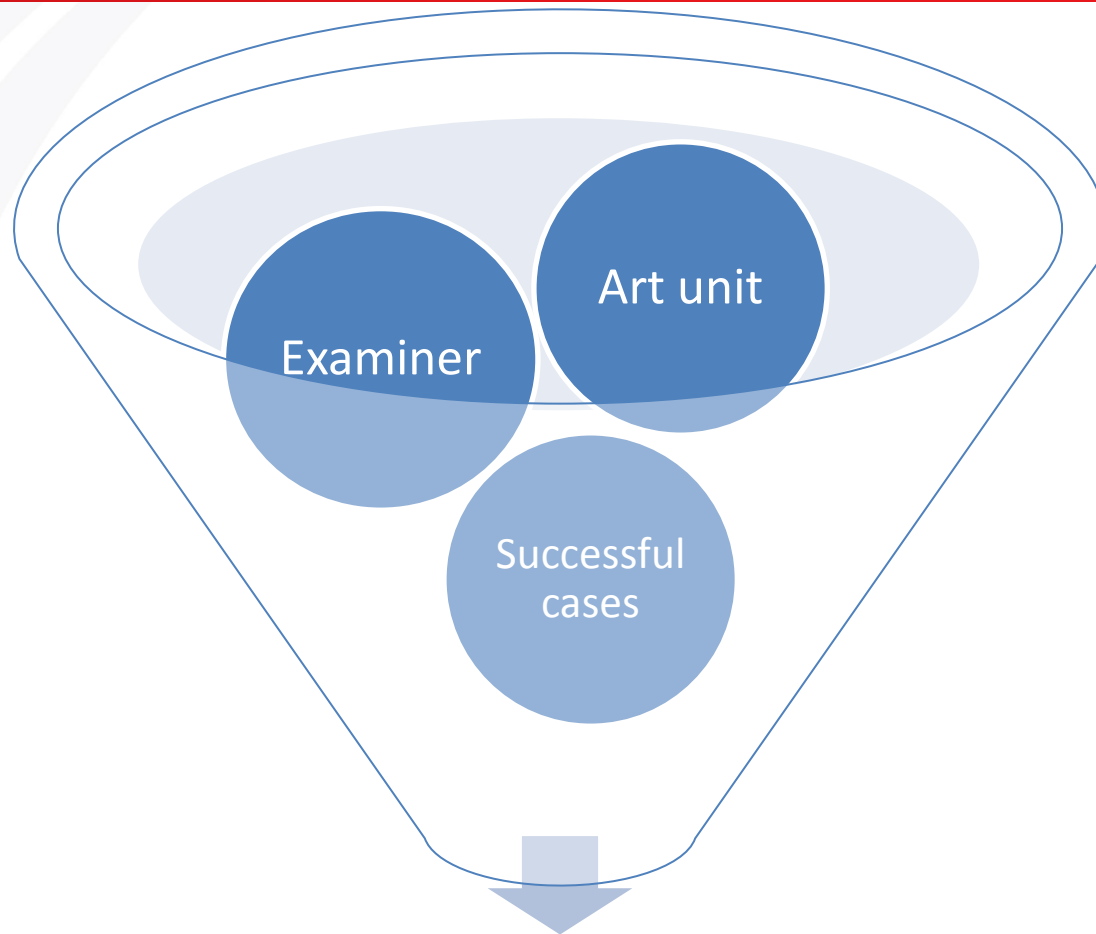
**Status**

1) ☒ Responsive to communication(s) filed on RCE filed 28 October, 2016.  
☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on \_\_\_\_.

2a) ☐ This action is **FINAL**.  
2b) ☒ This action is non-final.

A new 20-page OA citing case law issued (2016-11-22)!

# Strategic Prosecution



Faster grant, broader claims

謝謝!