

# Why and How we employ AI in TM Search

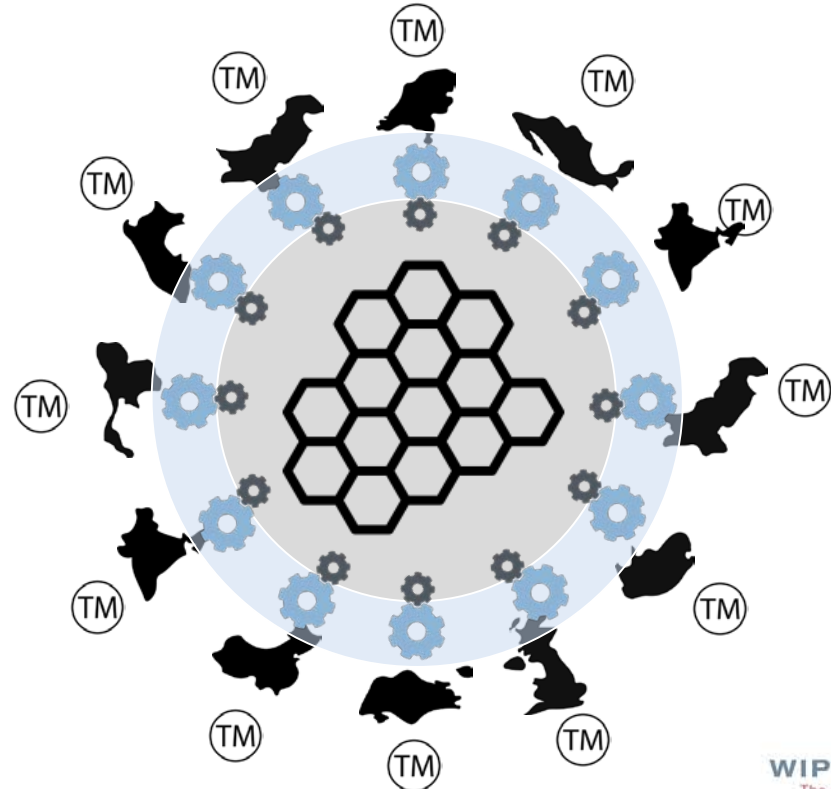
Mona REMLAWI, Head, Brand and Design Database Section,  
Global Infrastructure Sector

# The Global Brand Database

■ We collect Trademarks

➤ Integrate

➤ Index



Machine Learning for image similarity

**WIPO | MADRID**  
The International  
Trademark System

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# Free Search Engine

WIPO  
WORLD INTELLECTUAL PROPERTY ORGANIZATION

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Home | Knowledge | Global Brand Database

searches ▾ records ▾ help ▾

## Global Brand Database

NEWS

Perform a trademark search by text or image in brand data from multiple national and international sources, including trademarks, appellations of origin and official emblems. V: 2019-07-12 10:2

**SEARCH BY**

Brand Names Numbers Dates Class Country

Text = e.g. wipo OR ompi, "ntel", ompi-

Image Class = e.g. 05.07.13, apple AND tree

Goods/Services = e.g. footwear, comput\*

search ↗

**FILTER BY**



Source Image Status Origin App. Year × Expiration ×

AE TM	166,752	AU TM	1,701,396	BH TM	51,668	BN TM	47,417	BW TM	38,034
CA TM	1,652,368	CH TM	422,614	CL TM	602,514	CR TM	329,755	DE TM	2,079,620
DK TM	292,321	DZ TM	35,806	EE TM	60,496	EG TM	124,660	EM TM	1,703,674
ES TM	939,591	FR TM	2,792,784	GE TM	42,443	GH TM	31,225	GM TM	8,707
ID TM	1,005,200	IL TM	284,039	IS TM	108,688	IT TM	1,192,534	JO TM	155,030
JP TM	2,200,480	KE TM	95,165	KH TM	95,161	KR TM	3,636,906	KW TM	33,213

Display: List ▾ Sort: Value - asc ▾ filter ▾

1 - 30 / 39,102,840 TMview

Display: 30 per page options

	Brand	Source	Status	Relevance	Origin	Holder	Number	App. Date	Image Class	Nice Cl.	Image
<input type="checkbox"/>	SCHOLL DERMA-RENEW	CH TM	Pending	1	CH	LRC Products Limited	093192019	2019-07-11		3, 5, 25	
<input type="checkbox"/>	Bulldog	CH TM	Pending	1	CH	MB & F Holding SA	093162019	2019-07-11		14	
<input type="checkbox"/>	ILLUMINAGE	CH TM	Pending	1	CH	HFC Prestige International Holding Switzerland Sarl	093172019	2019-07-11		44	
<input type="checkbox"/>	KIFAHARI	CH TM	Pending	1	CH	Nyamabu Muja	093142019	2019-07-11		24, 41, 42	
<input type="checkbox"/>	DELL INFINITYEDGE	CH TM	Pending	1	CH	Deil Inc.	093252019	2019-07-11		9	
<input type="checkbox"/>	inSTAnT CHAnGE	CH TM	Pending	1	CH	Swiss Global Payments GmbH	093202019	2019-07-11		5, 41	
<input type="checkbox"/>	druckdrache	CH TM	Pending	1	CH	Brunner Medien AG	093122019	2019-07-11		16	
<input type="checkbox"/>	Thunderdome	CH TM	Pending	1	CH	MB & F Holding SA	093152019	2019-07-11		14	
<input type="checkbox"/>	A TR	CH TM	Pending	1	CH	ATR Chemicals SA	093222019	2019-07-11		1	

# Search Before you File

The screenshot displays the WIPO website's Madrid e-services page. At the top, the WIPO logo and name are visible, along with navigation links for Media, Meetings, Contact Us, My Account, and English. Below this is a search bar and a menu with options like IP Services, Policy, Cooperation, Knowledge, About IP, and About WIPO. The main content area features a breadcrumb trail (Home > IP Services > Madrid System) and a dropdown menu for 'On this page'. The central focus is the 'Madrid e-services' section, which is organized into four columns, each with a large colored arrow pointing right. The columns are: 1. 'Search' (red arrow) leading to the 'Global Brand Database'. 2. 'File' (purple arrow) leading to 'Madrid Goods & Services Manager', 'Member Profiles Database', and 'Fee Calculator'. 3. 'Monitor' (teal arrow) leading to 'Madrid Monitor'. 4. 'Manage' (green arrow) leading to 'Madrid Portfolio Manager', which includes sub-services like 'e-Subsequent Designation', 'e-Renewal', 'e-Payment', and 'Madrid System forms'. A 'PDF' icon is also present at the bottom of the 'File' column.

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Search WIPO 🔍

Home > IP Services > Madrid System On this page ▾

## Madrid e-services

**Search** ➔

Global Brand Database

**File** ➔

Madrid Goods & Services Manager

Member Profiles Database

Fee Calculator

International Application Form (MM2)

[PDF](#)

**Monitor** ➔

Madrid Monitor

**Manage** ➔

Madrid Portfolio Manager

- e-Subsequent Designation
- e-Renewal
- e-Payment
- Madrid System forms

# Likelihood of Confusion

## [Name]

- Exact matches
- Embedded words
- Phonetic
- Fuzzy
- Stemming



**SOLVED**

# Likelihood of Confusion

## [Image]



# Classification System

- Controlled vocabulary for
  - Images classification (# tagging)
  - Images retrieval

# Classification System

## [Vienna]

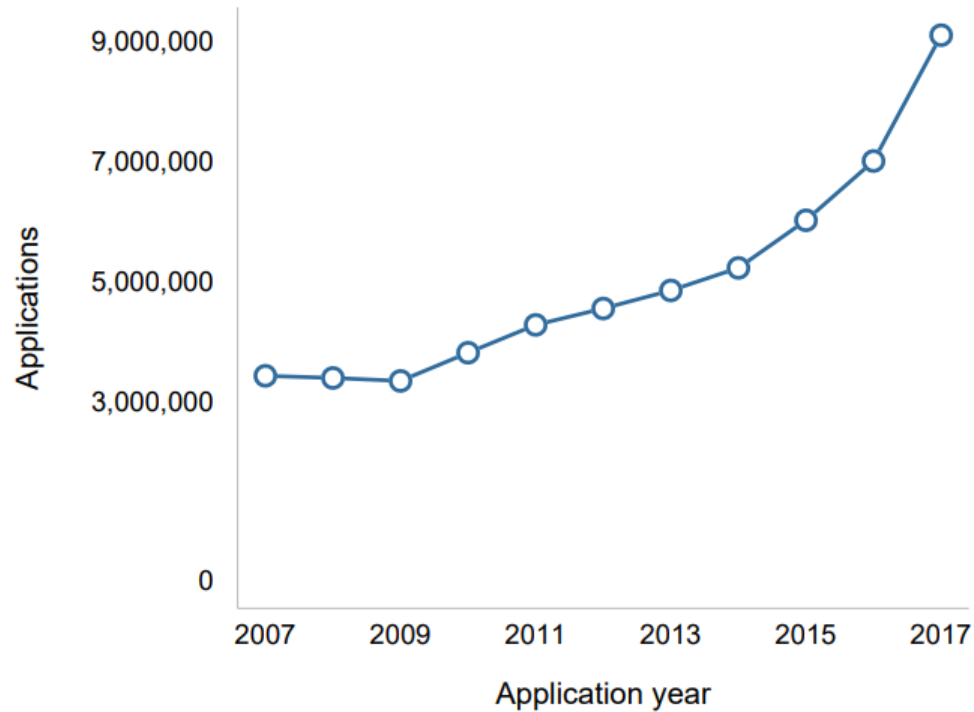


Berne 1353

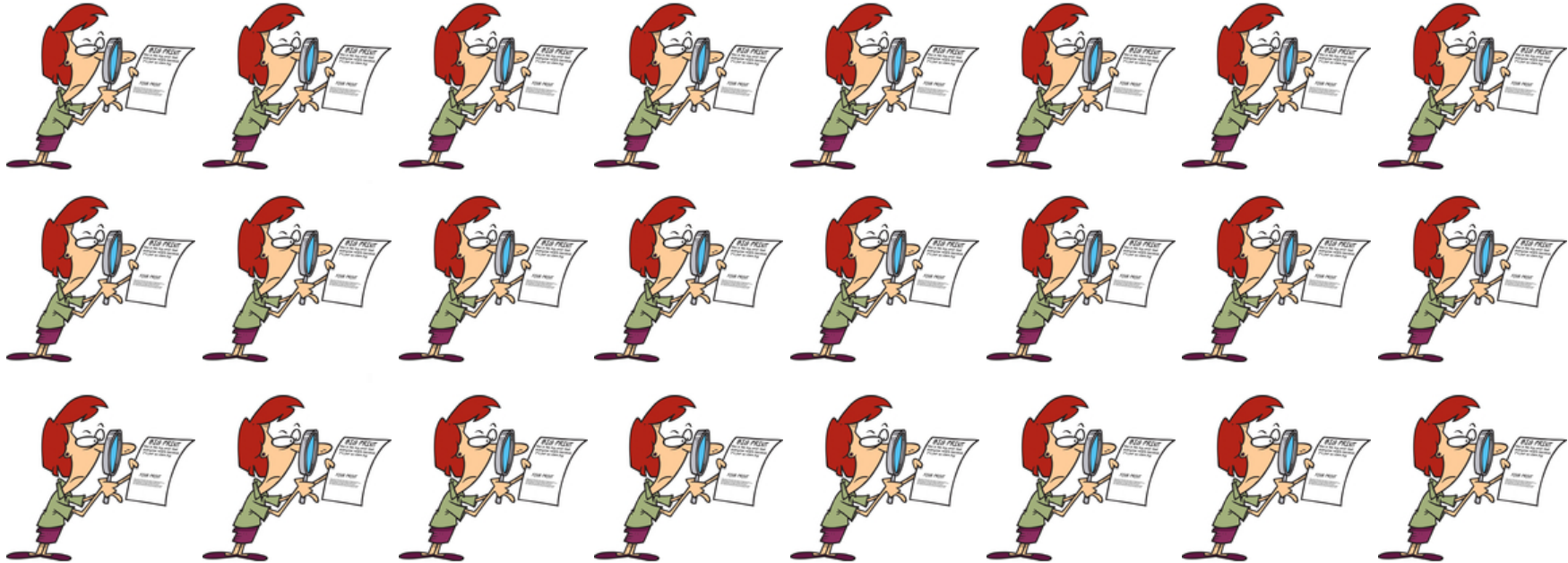
- 03.01.14 - Bears, koalas, wombats
- 03.01.24 - Animals of Series I stylized
- 24.01.03 - Shields containing representations of geometrical figures or solids, lines, bands ...
- 24.01.05 - Shields containing other figurative elements or inscriptions
- 24.01.09 - Shields containing representations of animals or parts of animals' bodies
- 29.01.01 - Red, pink, orange
- 29.01.02 - Yellow, gold
- 29.01.08 - Black
- 29.01.13 - Three predominant colours



# World Wide TM Filings



# How to cope with Work Load



# How to cope in 5 years



# How to cope in 10 years



# Change WoW

- 2014 : GBD released Content Based Image Retrieval (CBIR)
  - Shape
  - Colors
  
- 2019 : GBD released Image Similarity by AI techniques

# Image Similarity by ML

Teach the machine to classify

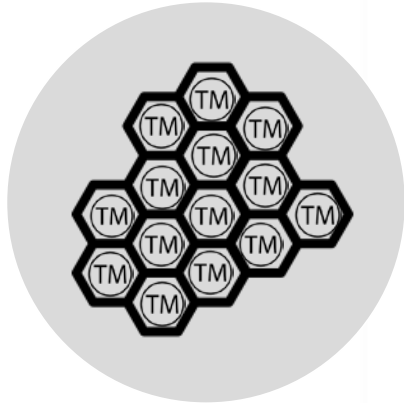


05.09.13 - Slices or quarters of fruits, open fruits	
05.09.04 - Lemons, limes	(10.9)
05.09.03 - Oranges, tangerines and the like; grapefruit	(10.4)
01.15.18 - More than one drop including teardrops or raindrops	(10.1)
01.15.08 - A single drop (including a single raindrop or a single t...	(9.6)
05.05.25 - Other flowers including daffodils and irises	(8.4)
05.03.25 - Other leaves	(7.9)
01.01.04 - A single star with six points	(7.8)
02.11.01 - Hearts	(7.3)
18.03.06 - Baby carriages and strollers	(7.2)

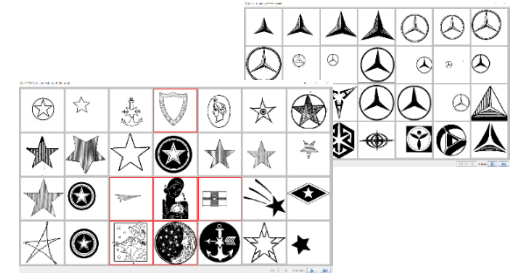
**The  
“How Obvious”  
factor**

# Image Similarity by ML

Teach with Which Material ?



- GBD has a large base of images classified by humans
- Select and Clean for hi-fidelity
  - Accuracy
  - Coverage



# Image Similarity by ML

Look for



Find

