



SERVING AUTHORS WORLDWIDE
AU SERVICE DES AUTEURS DANS LE MONDE
AL SERVICIO DE LOS AUTORES EN EL MUNDO



AIR

WIPO

March 2, 2022

Created by Robin GROENEVELT (ADAGP), AIR Project leader
Source language: English
Current version: Feb 24, 2022

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Welcome



Robin Groenevelt

AIR Project leader

R&D Manager & Developer

Computer vision & tech expert

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How did it start?



Automated Image Recognition (AIR)

Founded by

ADAGP

Marie-Anne Ferry

Director ADAGP

Chair of AIR

Chair of WIPO Task Force Artist's Resale Royalty Right

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AIR DEMO VIDEO

Who's involved?

AIR is a centralized **database of artworks** and a **set of IT tools** for CISAC's visual art right management societies

Artists include:

Architects	Performance artist
Cartoonists	Photographers
Graphic artists	Poster artists
Illustrators	Sculptors
Painters	Street art artists

Who's involved?

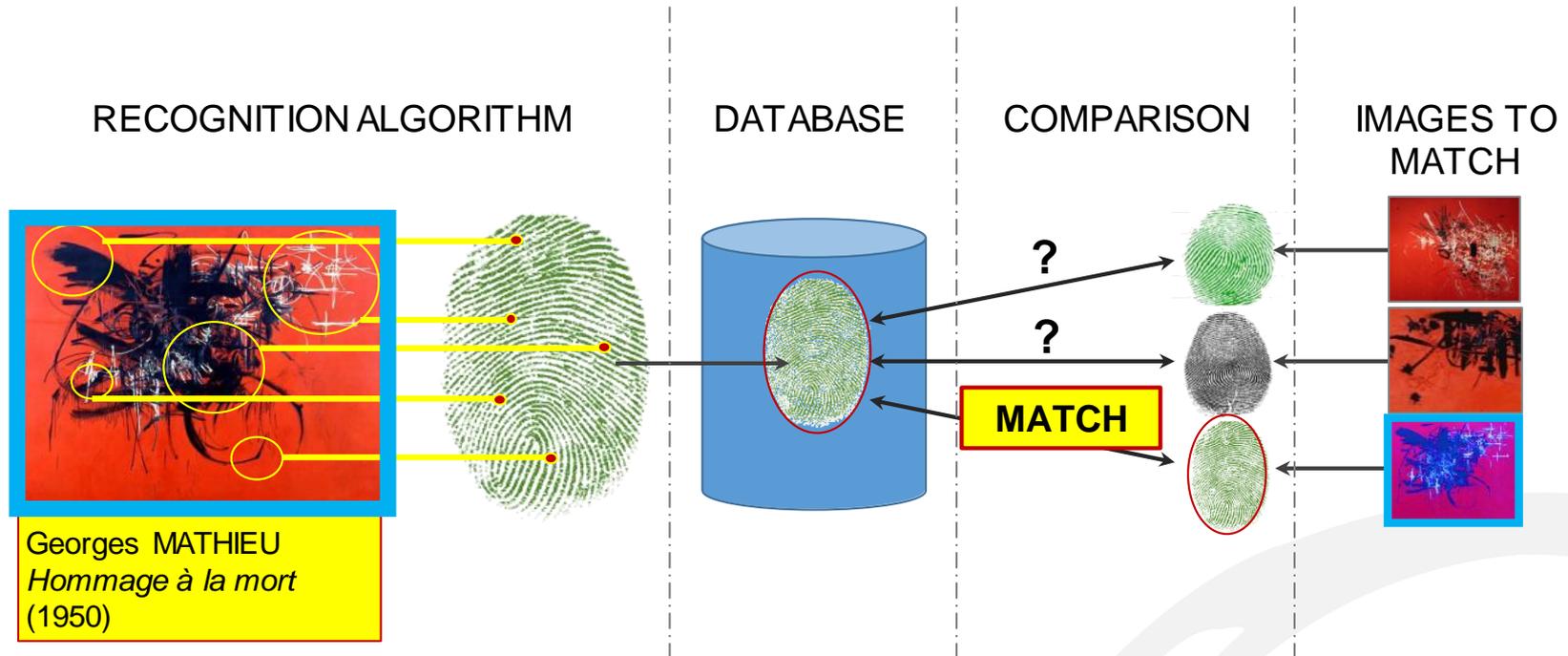


AIR is also a collaboration and is being developed by 9 pilot societies:

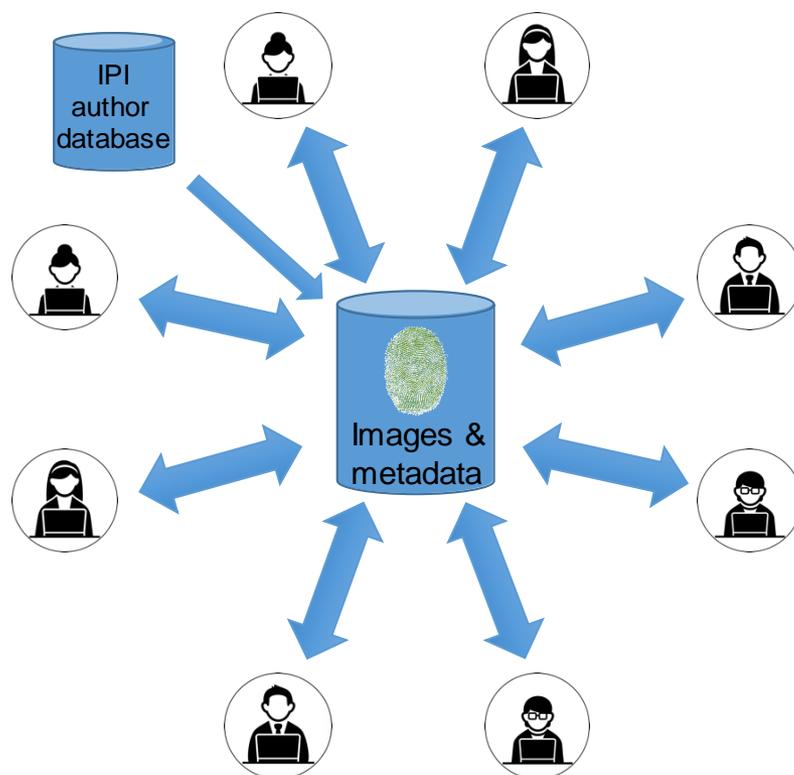
ADAGP	(France)
ARS	(USA)
AUTVIS	(Brazil)
Bildupphovsrätt	(Sweden)
Bild-Kunst	(Germany)
PICTORIGHT	(Netherlands)
SABAM	(Belgium)
SOFAM	(Belgium)
VEGAP	(Spain)

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How does it work?

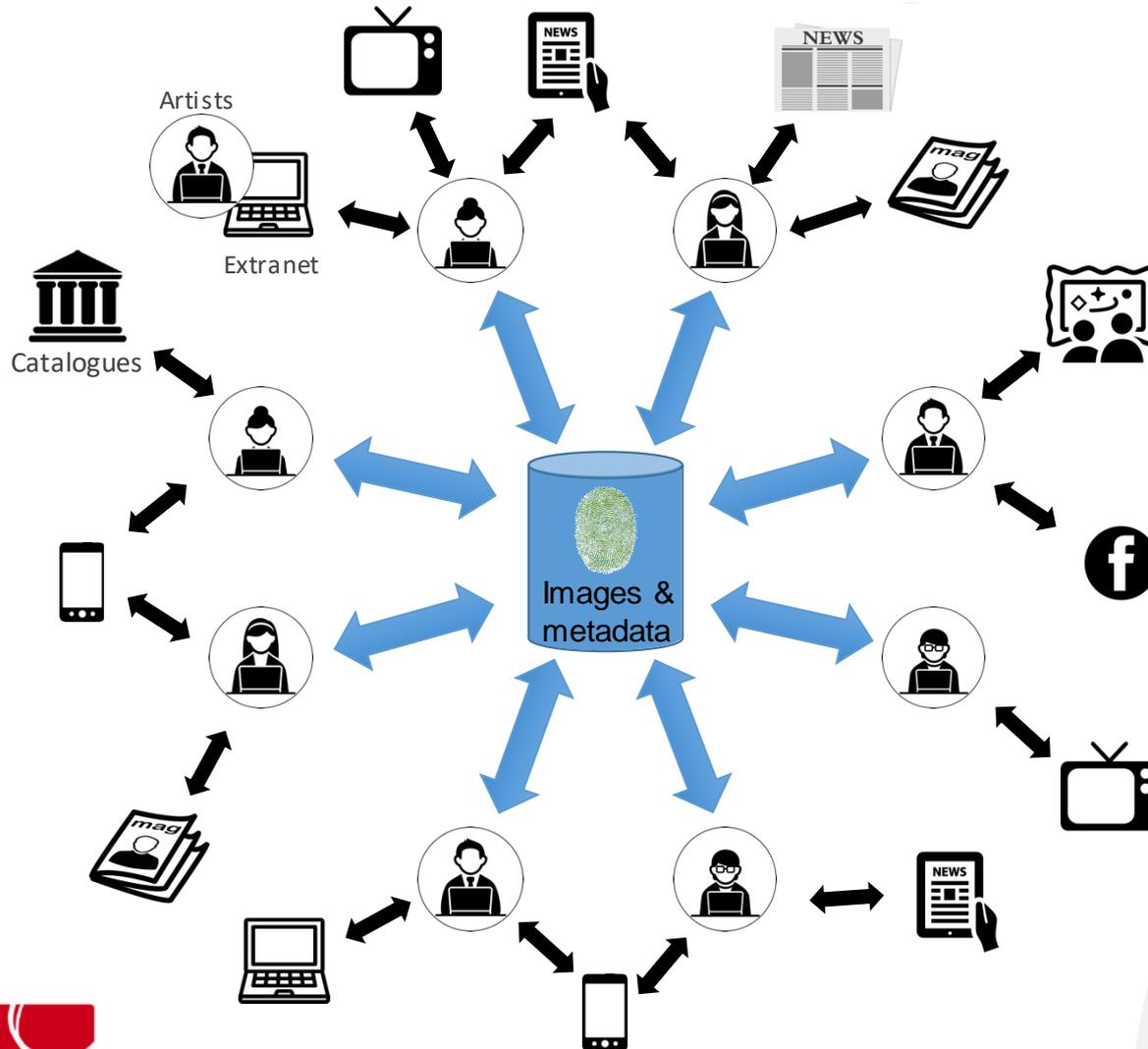


Collaborative database creation



- Societies collaborate to fill the database

Collaborative database creation



- Societies collaborate to fill the database
- Images come from many sources

DEMO: AIR Chrome extension

Let's see the AIR in action by using the AIR Chrome extension to recognize and add artwork images on the website of the Centre de Pompidou.

The AIR Chrome extension is an add-on that we have created that a user can install in Chrome.

For each image on a website the AIR Chrome extension matches it against the AIR database.

If there's a match then it shows the artwork & artist information on top of the artwork image and we can retrieve more information about the artwork with the click of a button.

We can create new artwork in AIR using the image on the website and IPI to find the author's name.

We can use as many images as we like to represent an artwork. This is particularly useful to recognize 3D artworks such as sculptures and buildings where those artworks can be viewed from different angles and under different lighting conditions.

As soon as a new artwork has been added, AIR will from that moment onwards recognize that artwork, so a user of AIR on the other side of the world will immediately be able to recognize that artwork as well in digital media they are scanning.

When someone uses the Chrome extension AIR also registers the date, time and location of each artwork detection so that reports can be generated of what's been detected on a website or in PDFs. We also have crawls in place that automatically scan websites and that can tell us one year from now which images & artworks are new on the website.

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AIR works well



Here I've just scratched the surface of what's been developed so far.

AIR is operational and is starting to work very well. AIR has:

- **1 million artworks in the database** from 16 500 artists
- **350 websites are crawled** every month
- **35 million images** and over **1 millions PDFs** are monitored every month

Users of AIR can also

- Search for artworks in the database
- Manage potential duplicates
- Upload batches of images & PDFs into the database
- Validate author submitted images

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AIR works well



Processing of websites has been cut down by 80%
What used to take a full week now takes a single day to process

AIR forces societies to rethink the way they manage rights

E.g., Rights on images on press websites only get invoiced and paid out to artists when they get published and no longer for every month they are online (thereby eliminating large costs for archives & small avoiding having to pay small amounts to authors)

Compared to previous manual checks, AIR detects 2x the number of artworks
Last week a press website that used to pay 2 500€ got invoiced with AIR for 10 000€

The challenges ahead

AIR is awesome but it's not a miracle tool & many challenges remain:

- Old ways of working & **contracts need to get changed**
- There are **billions of (artwork) images**
- The database will **never be 100% complete**
- The **artwork database needs to be perfect** (so no AI nor crowdsourcing possible)
- How to get (older) **non-technical artists** to submit & manage their images (photographers = ok)
- **Cost efficiency** (e.g., processing the internet, social media, YouTube, or TV)
- Importing **external databases** with non-IPI artists
- **Algorithm limitations** (transparent & reflective surfaces, minimalistic images, identical fonts used in artworks cause false matches)
- **IT systems** at societies need to be modern & ready
- **Lack of IT people** at the societies (in particular smaller societies)

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Thank you