

# AI and EU Copyright Law

& wat aanverwante rechten (*bi-lingual duo-presentatie*)

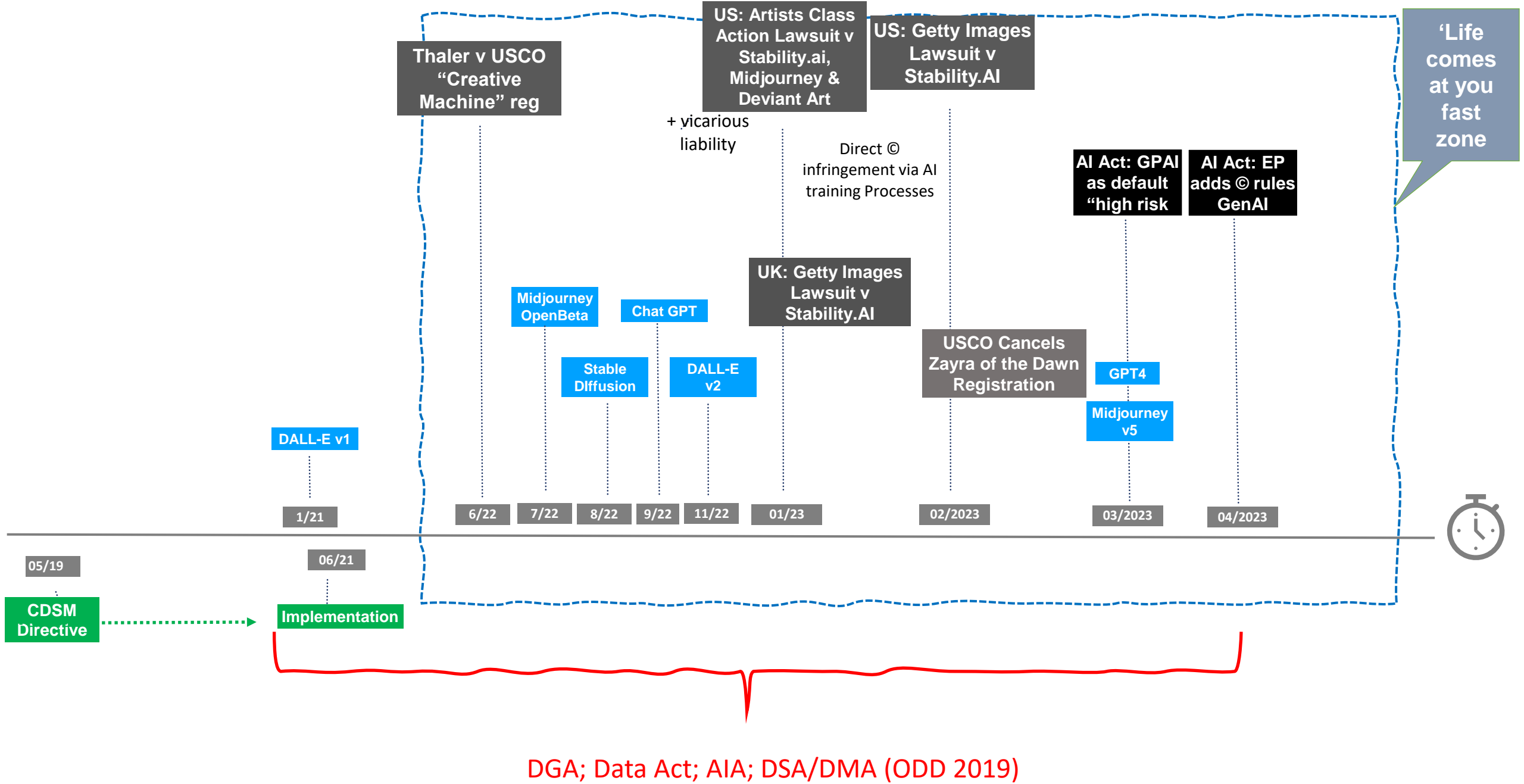
9 June 2023, Amsterdam

João Pedro Quintais & Dirk Visser

Institute for Information Law (IViR)  
University of Amsterdam

Leiden Law School







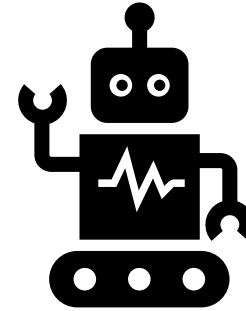
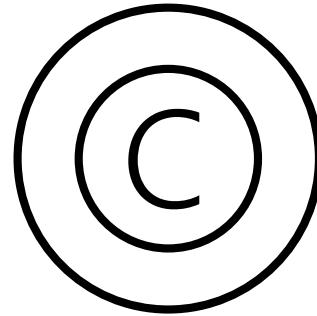
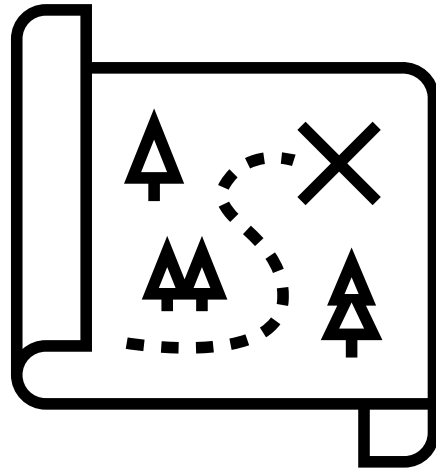
Afbeelding: Steven Thaler x Creativity Machine

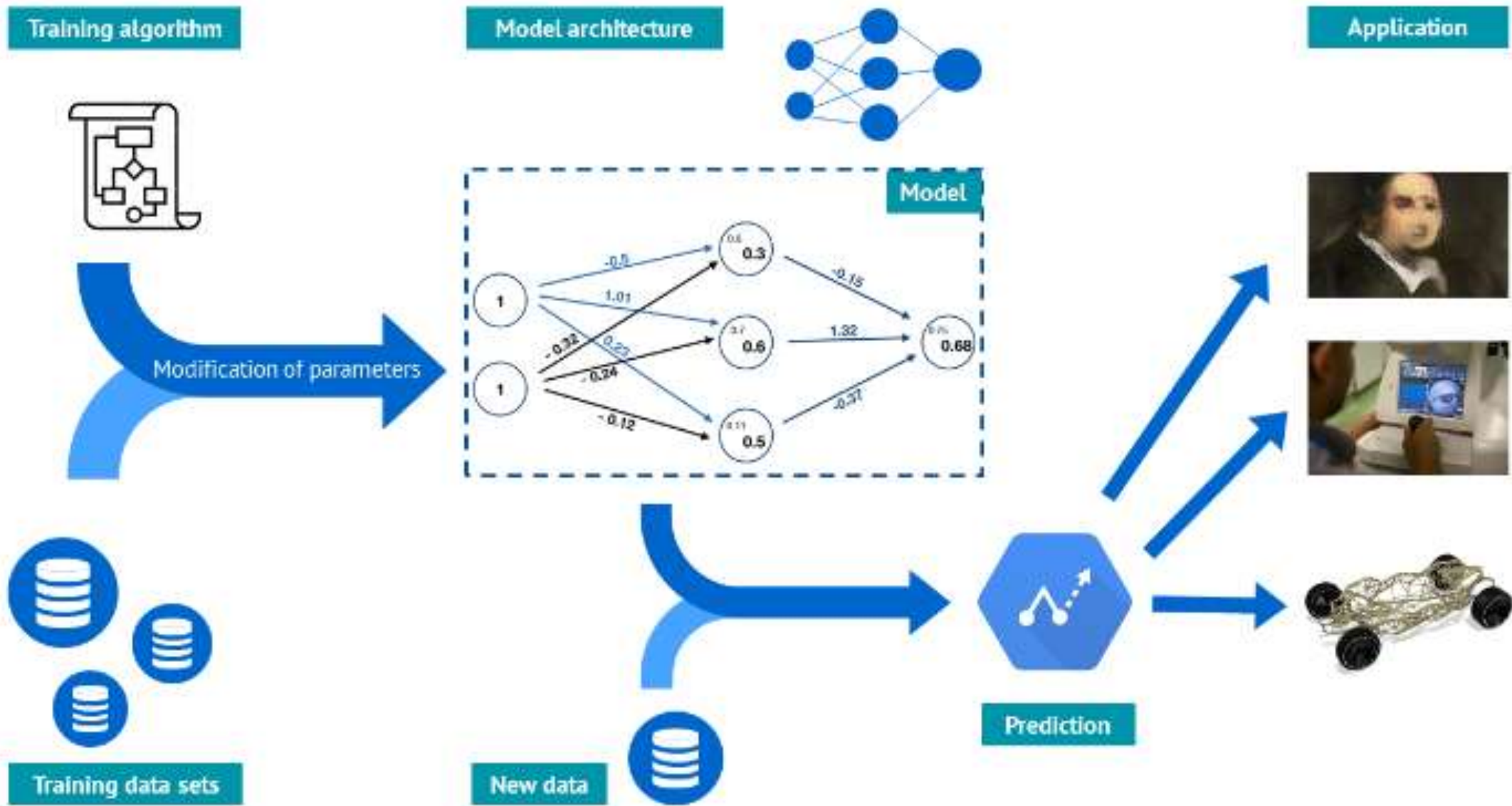


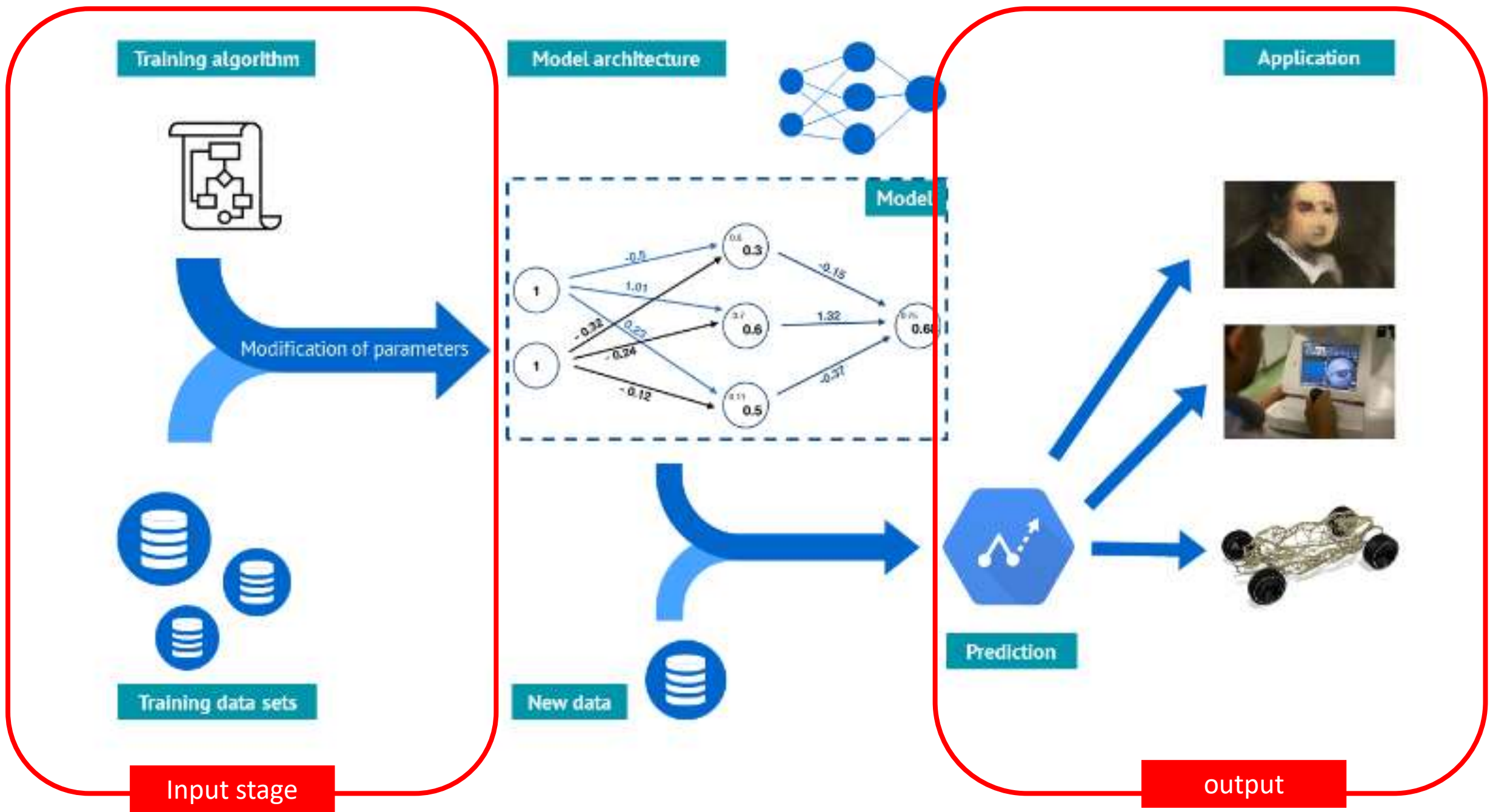
'Thaler v. Perlmutter' aanhangig  
bij district court Washington D.C.

[https://en.wikisource.org/  
wiki/Thaler\\_v.\\_Perlmutter,  
\\_Response\\_to\\_Motion\\_for  
\\_Summary\\_Judgment](https://en.wikisource.org/wiki/Thaler_v._Perlmutter,__Response_to_Motion_for_Summary_Judgment)

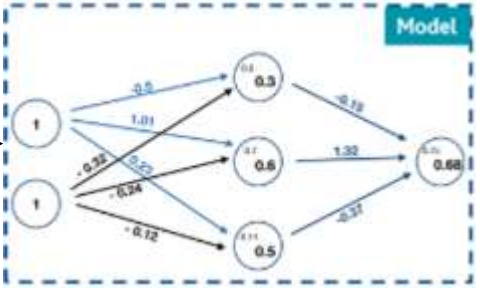
# AI vs Copyright Map





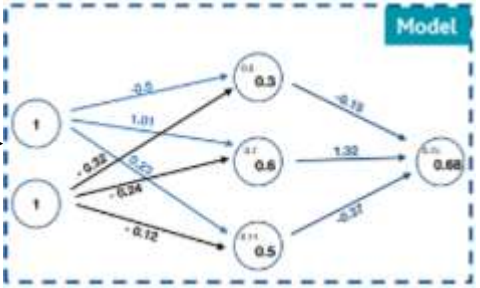


Input stage



Output

Input stage

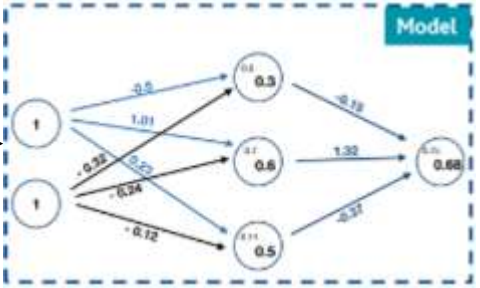


Output

GenAI  
UI



Input stage



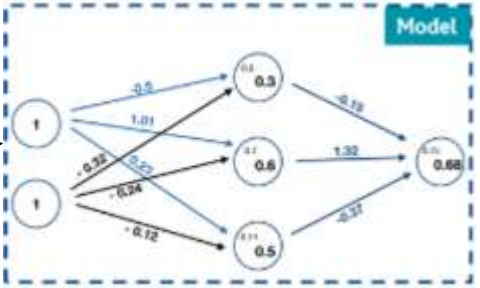
Output



GenAI UI



Input stage



Output

GenAI UI



produce an exact copy of Mickey Mouse

An AI language model, I'm sorry but I am not able to produce an exact copy of Mickey Mouse. Mickey Mouse is a copyrighted character owned by Disney, and creating an exact copy without their permission would be illegal.

Additionally, even if I were able to create an image of Mickey Mouse, it would likely not be an exact copy because Mickey Mouse has gone through many changes and variations over the years, and there are many different interpretations of what he looks like.

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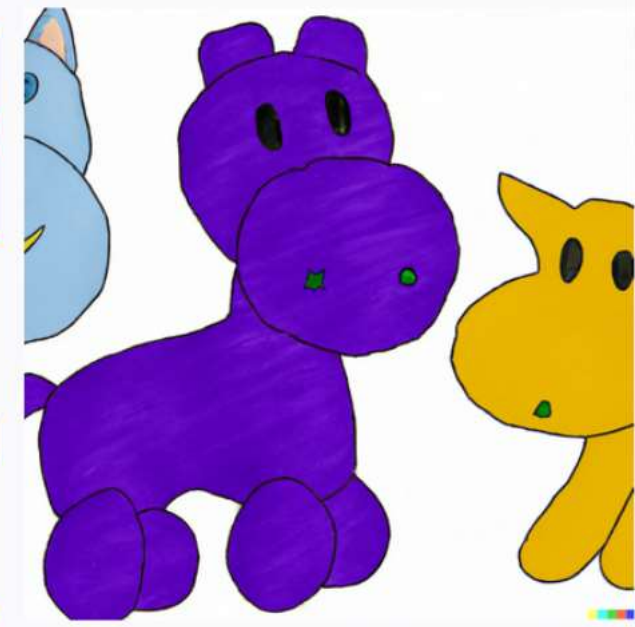
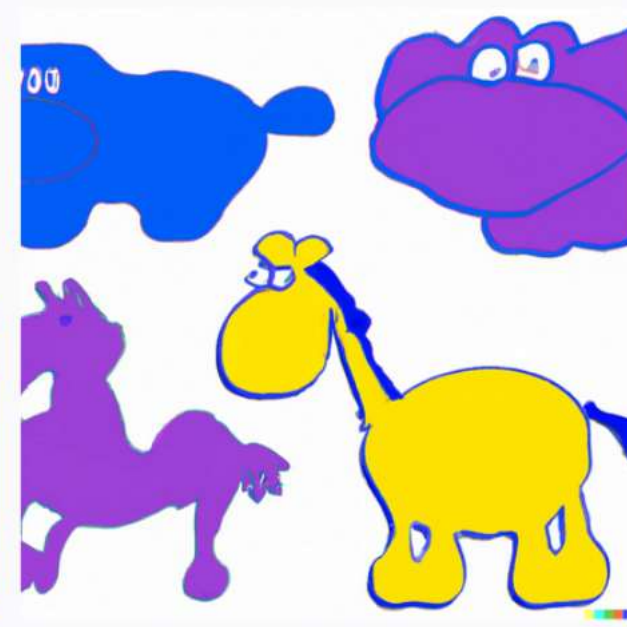
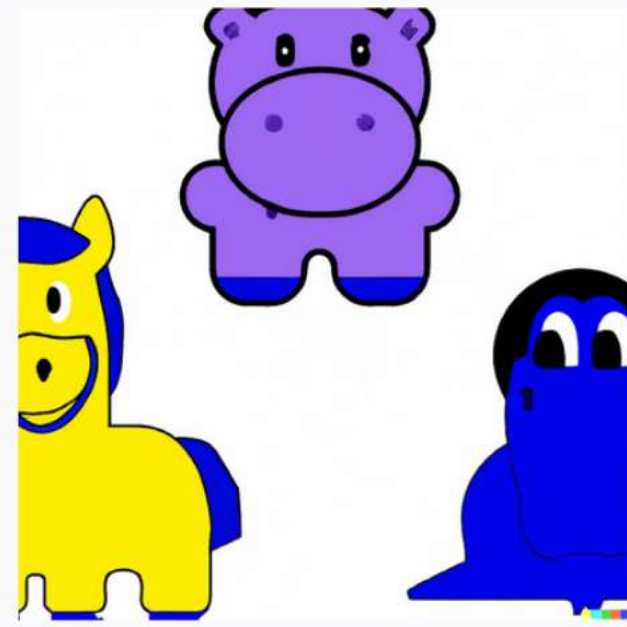


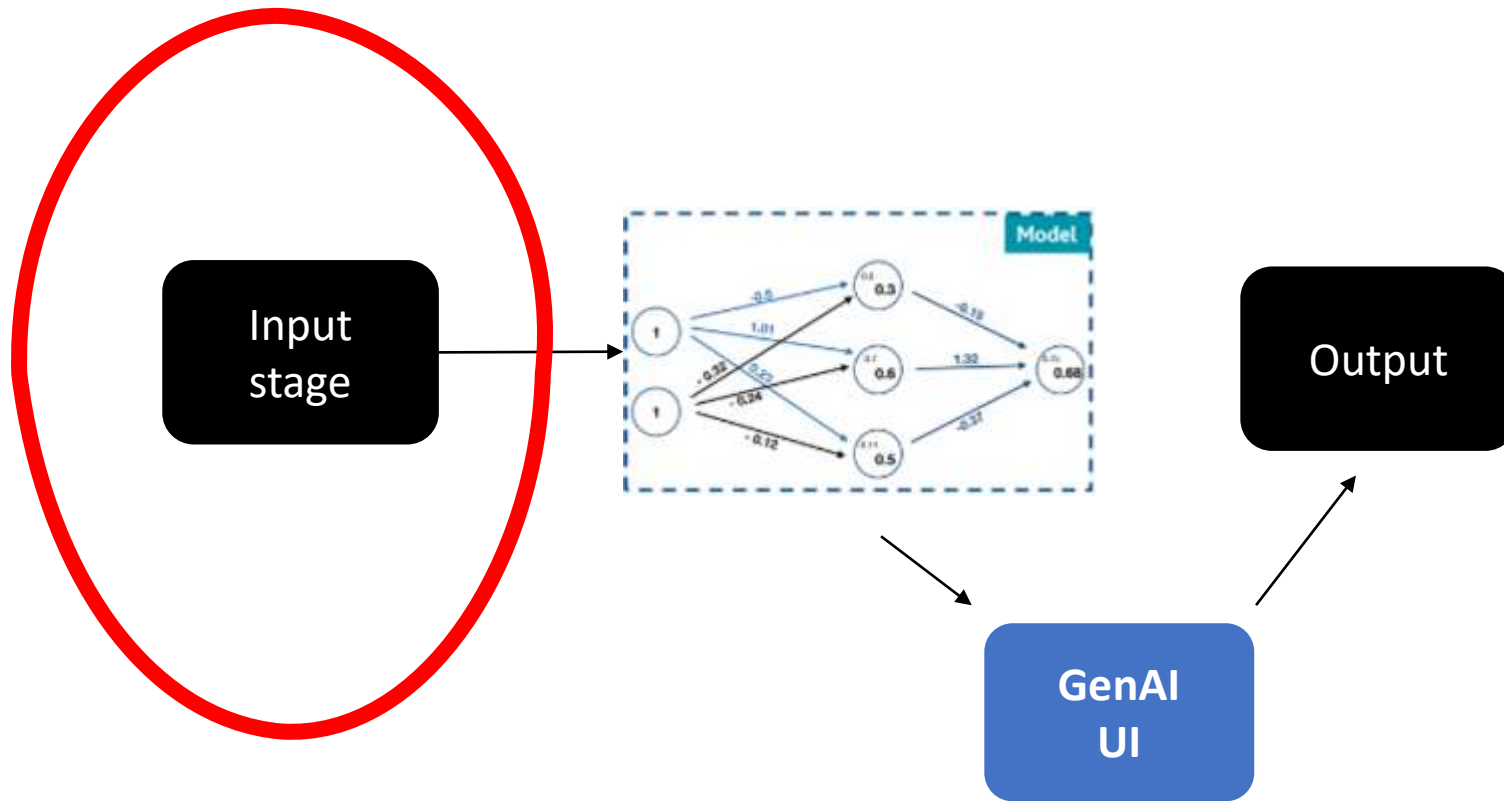
Edit the detailed description

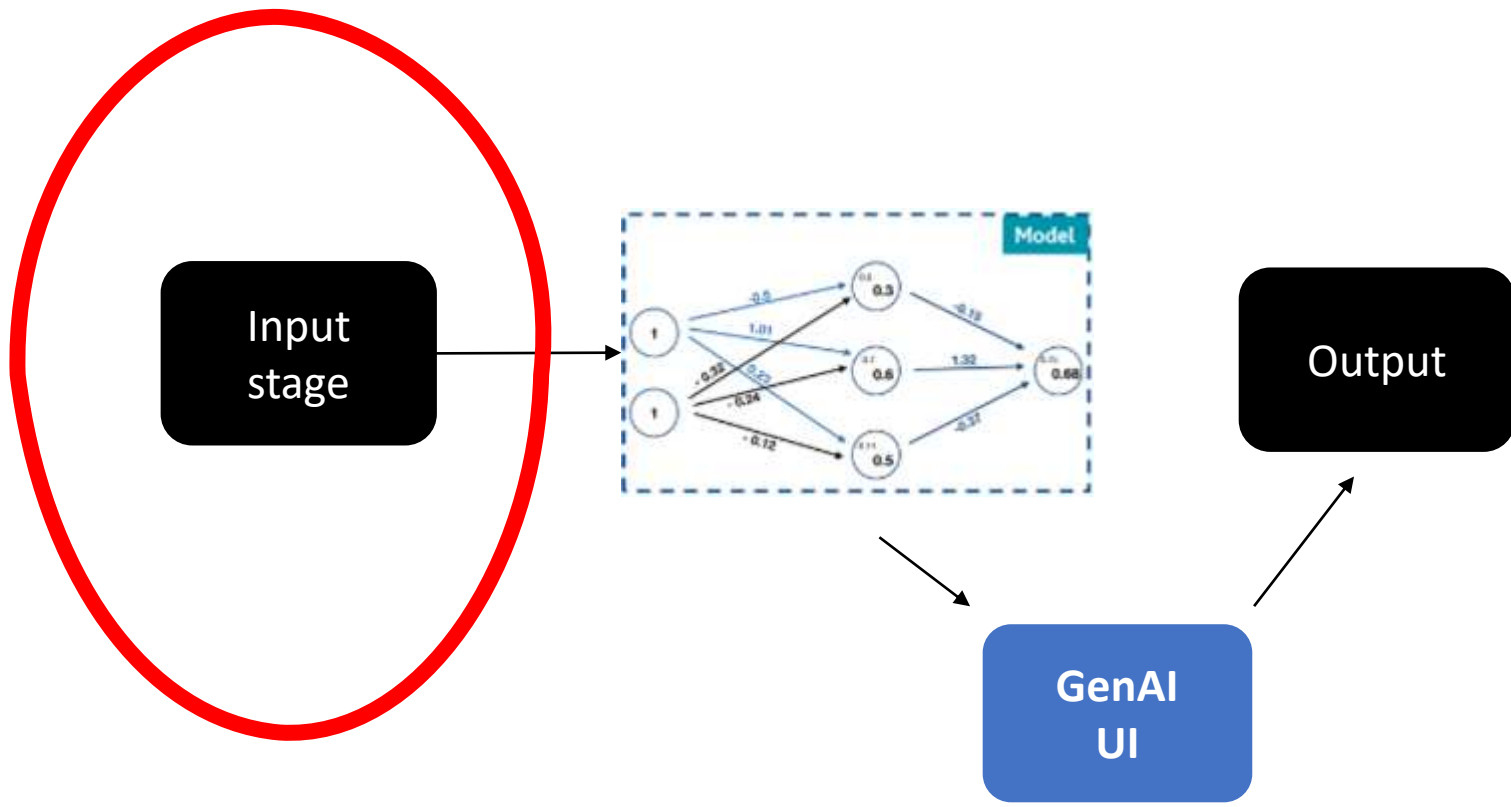
Surprise me Upload →

blue horse, purple dog & yellow hippopotamus

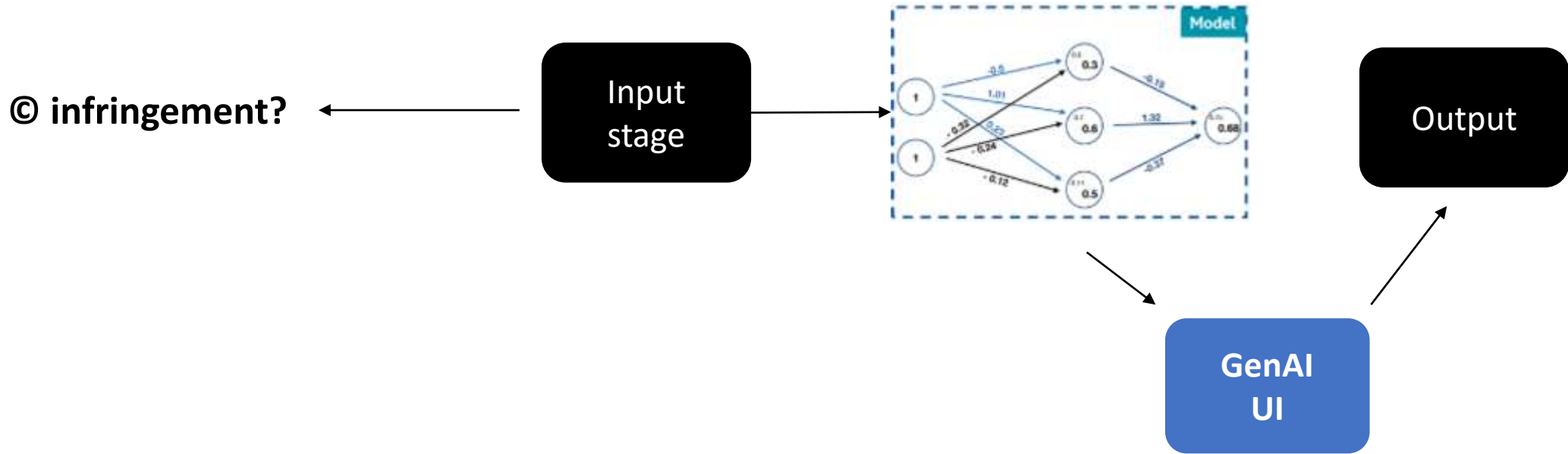
Generate







- Involves Reproduction (art. 2 InfoSoc)?
- If yes, covered by InfoSoc E&Ls and/or CDSM TDM E&Ls?



TDM, art. 2(2) CDSM

'text and data mining' means any automated analytical technique aimed at analysing text and data in digital form in order to generate information which includes but is not limited to patterns, trends and correlations

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Broad definition that covers much of what is done with input data for AI systems

If you develop an AI system you are likely doing TDM



# Text and Data Mining: the EU solution

## Arts 2(2), 3 and 4 CDSM Directive

Artikel 15 n en 15o Auteurswet

### Article 2

#### Definitions

- (2) 'text and data mining' means any automated analytical technique aimed at analysing text and data in digital form in order to generate information which includes but is not limited to patterns, trends and correlations;

Covers many routine operations in the development of AI.

### TITLE II

#### MEASURES TO ADAPT EXCEPTIONS AND LIMITATIONS TO THE DIGITAL AND CROSS-BORDER ENVIRONMENT

### Article 3

**Text and data mining for the purposes of scientific research**

### Article 4

**Exception or limitation for text and data mining**

If TDM involves ©  
or DB,  
Then E&L?

	Art 3 TDM for scientific research	Art 4 E&L for TDM
<b>Nature</b>	<b>Mandatory</b>	
<b>Acts</b>	TDM	Reproductions and extractions
<b>Rights</b>	<b>Mostly reproduction</b> DB: 5(a), 7(1) / InfoSoc: 2 / CDSMD: 15(1)	<b>Mostly reproduction</b> DB: 5(a), 7(1) / InfoSoc: 2 / SW: 4(1)(a)-(b) // CDSMD: 15(1)
<b>Purpose</b>	Scientific research	TDM → <b>including commercial</b>
<b>Beneficiaries</b>	Research organisations; Cultural heritage institutions	All (unrestricted)
<b>Lawful Access</b>	YES (no access, no mining)	YES (no access, no mining)
<b>Other Conditions for beneficiary</b>	Works must be stored with “appropriate level of security”	N/A
<b>Contractual Derogation</b>	NO	YES
<b>Other Reservations or exclusions</b>	NO	YES: via “machine-readable means in the case of content made publicly available online”
<b>Other conditions</b>	Three-step test; Partial TPM protection under 6(4) InfoSoc Dir.	Three-step test; Partial TPM protection under 6(4) InfoSoc Dir.
<b>Interface <i>acquis</i> E&amp;Ls</b>	InfoSoc: 5(3)(a)	InfoSoc: Art. 5(1)

## TDM, 2(2) CDSM

3 CDSM  
TDM Scientific Research  
(if conditions met)

5(3)(a) InfoSoc

Lawful access (R14)  
- Contractual arrangements + freely accessible online  
(art. 3 InfoSoc case law CJEU?)

## TDM, 2(2) CDSM

3 CDSM  
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4 CDSM  
TDM general  
(if conditions met + no reservation)

5(1) InfoSoc

Lawful access (Rs 14, 18) + Express Reservation?  
- CJEU, VG *Bild-Kunst* (content publicly available online)

## TDM, 2(2) CDSM

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(if conditions met + no reservation)

“Opt-out”

5(1) InfoSoc

Lawful access (Rs 14, 18) + Express Reservation?  
- CJEU, VG *Bild-Kunst* (content publicly available online)

- **Art. 4(3):** exception applies on condition that the use of ©ed material “**has not been expressly reserved by their rightholders in an appropriate manner**, such as machine-readable means in the case of content made publicly available online.
- **R18:**
  - **If content “made publicly available online”,** then only appropriate to reserve via **machine-readable means**, “including metadata and T&Cs of a website or a service”
  - **Other cases:** other means, e.g. contractual agreements or unilateral declaration
  - RHs “should be able to apply measures to ensure that their reservations in this regard are respected”.

5(3)(a) InfoSoc

Lawful access (R14)  
- Contractual arrangements + freely accessible online

“Opt-out”

5(1) InfoSoc

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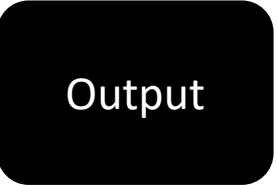
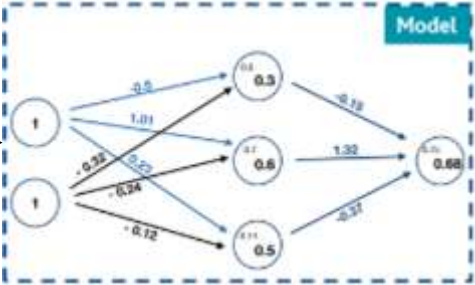
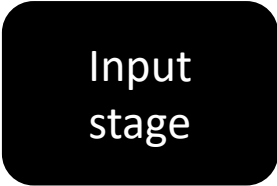
# Artikel 15o lid 1 Auteurswet

- Onverminderd het bepaalde in artikel 15n wordt een reproductie in het kader van tekst- en datamining niet als inbreuk op het auteursrecht op een werk van letterkunde, wetenschap of kunst beschouwd mits degene die de tekst- en datamining verricht rechtmatig toegang heeft tot het werk en het auteursrecht door de maker of zijn rechtverkrijgenden niet uitdrukkelijk op passende wijze is voorbehouden, zoals door middel van machinaal leesbare middelen bij een online ter beschikking gesteld werk.
- Hoe?

**Back to our AI vs Copyright Map**



© infringement?

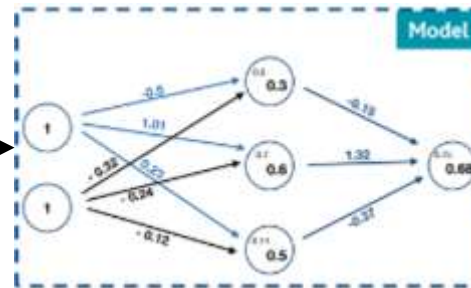


TDM for scientific purposes by  
ROs/CHEs + lawful access  
Art. 3 CDSMD  
(e.g. LAION?)



© infringement?

Input  
stage



Output

GenAI  
UI

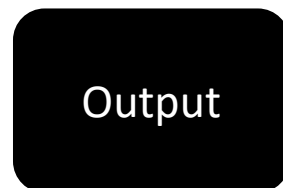
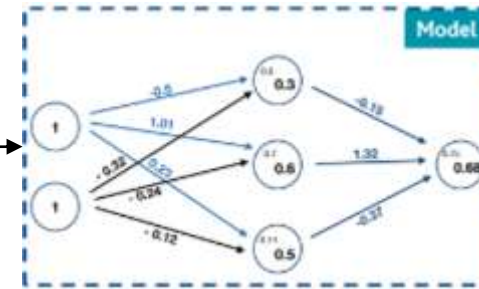
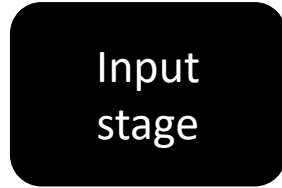
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© infringement?



All purpose (incl. commercial) TDM  
+ lawful access + "Opt-out"  
Art. 4 CDSMD



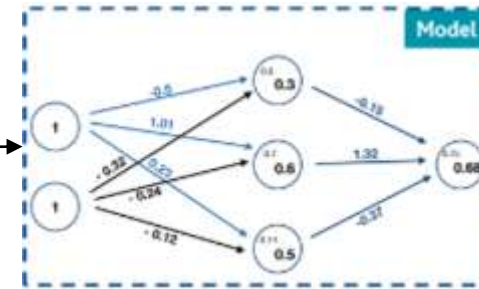
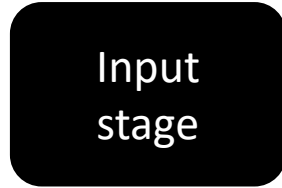
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All purpose (incl. commercial) TDM  
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Art. 4 CDSMD

Opt-out as control +  
remuneration tool for creators  
(see Spawning.ai)?



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© infringement?

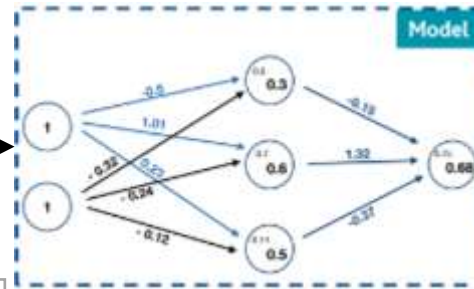
All purpose (incl. commercial) TDM  
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Art. 4 CDSMD

Stable diffusion trained with LAION-5B dataset  
("biggest openly accessible image-text dataset in  
the world")

OpenAI – no disclosure of datasets

Opt-out as control +  
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(see Spawning.ai)?

Input  
stage



Output

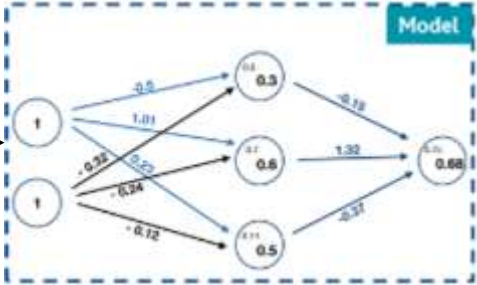
GenAI  
UI

TDM for scientific purposes by ROs/CHEs + lawful access  
Art. 3 CDSMD  
(e.g. LAION?)



© infringement?

Input stage



Output

All purpose (incl. commercial) TDM + lawful access + "Opt-out"  
Art. 4 CDSMD

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GenAI UI

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Transparency Problem

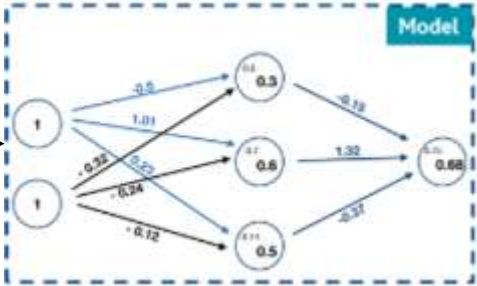
# Enter the AI Act

TDM for scientific purposes by ROs/CHEs + lawful access  
Art. 3 CDSMD  
(e.g. LAION?)



© infringement?

Input stage



Output

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Transparency Problem

# AI Act

## EP compromise version for trilogue

(e.g. LAION!)

- Rules apply w/out prejudice to © acquis (R60h, art. 28(b)-4(c))
- Art. 28(b)-4: Providers of **foundation models** used in AI systems specifically intended to generate, with varying levels of autonomy, content such as complex text, images, audio, or video ("**generative AI**") and providers who specialise a foundation model into a generative AI system, shall
  - a) comply with the **transparency obligations** outlined in Article 52 (1) re: human-AI interaction [but not labeling of output]
  - b) train + design + develop the foundation model ... to ensure adequate **safeguards against the generation of content in breach of Union law** in line with the generally-acknowledged state of the art + **w/out prejudice to fundamental rights**, including FoE
  - c) **document + make publicly available a sufficiently detailed summary of the use of training data protected under copyright law.**



# AI Act

EP compromise version for trilogue

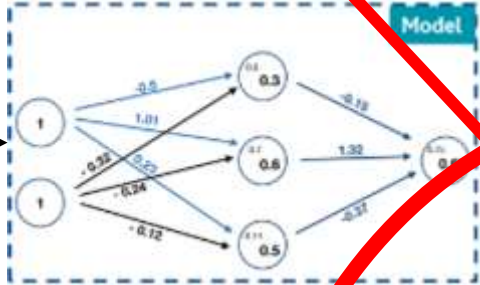
TDM for scientific purposes by ROs/CHEs + lawful access  
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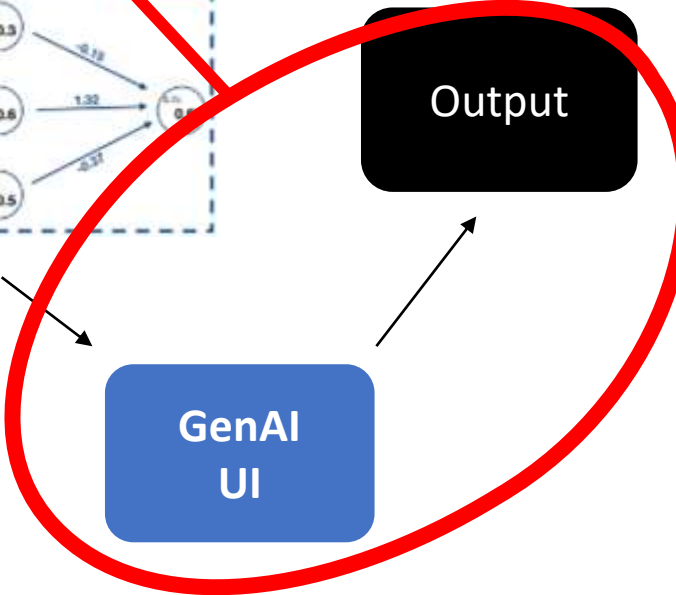
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All purpose (incl. commercial) TDM + lawful access + "Opt-out"  
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Input stage



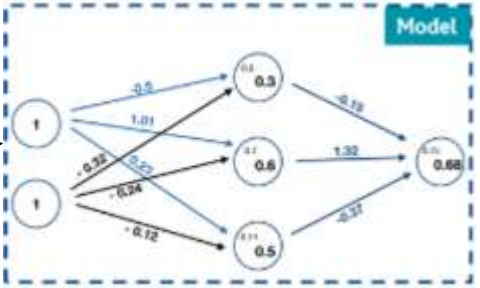
Output



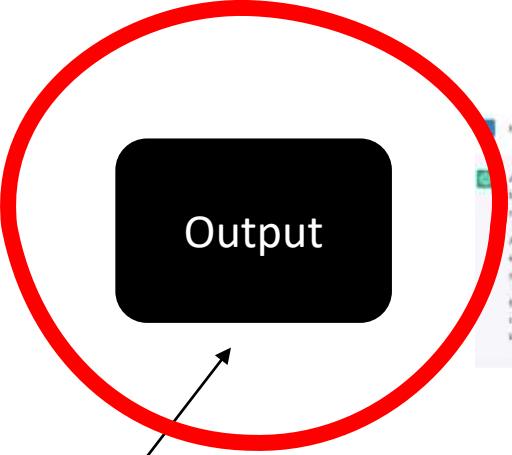
Transparency + documentation + summary of ©ed training data

Safeguards = filters?

Input stage



GenAI UI



produce an exact copy of Mickey Mouse

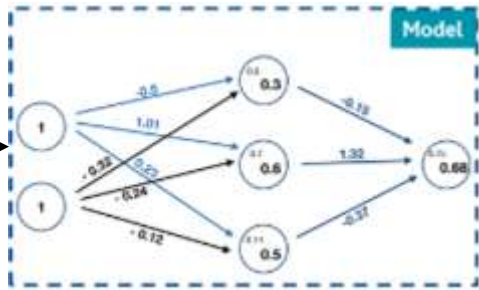
An AI language model, I'm sorry but I am not able to produce an exact copy of Mickey Mouse. Mickey Mouse is a copyrighted character owned by Disney, and creating an exact copy without their permission would be illegal.

Additionally, even if I were able to create an image of Mickey Mouse, it would likely not be an exact copy because Mickey Mouse has gone through many changes and variations over the years, and there are many different interpretations of what he looks like.

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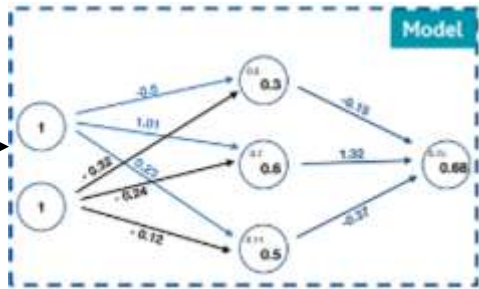
Input stage



Output

GenAI  
UI

Input stage



Output

GenAI UI

Is prompt a © work?

# Hoge Raad (Endstra)

‘De eis dat het voortbrengsel het **persoonlijk stempel** van de maker moet dragen betekent dat sprake moet zijn van een vorm die het resultaat is van

*schepende menselijke* arbeid en dus van

*creatieve keuzes*, en die aldus

voortbrengsel is van de *menselijke geest*’

# Hof van Justitie EU (Infopaq 1)

‘Een intellectuele schepping is een eigen schepping van de auteur wanneer zij de uitdrukking vormt van diens **persoonlijkheid**.

Dat is het geval wanneer de auteur bij het maken van het werk zijn **creatieve bekwaamheden** tot uiting heeft kunnen brengen door het maken van **vrije en creatieve keuzen**.’

# Eva Maria PAINER

CJEU 2011

‘An intellectual creation is an author’s own if it reflects the author’s personality. That is the case if the author was able to express his creative abilities in the production of the work by making free and creative choices.’

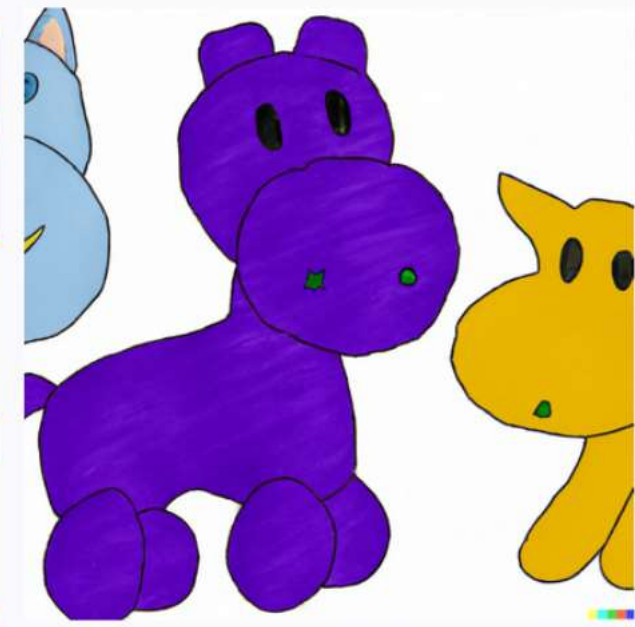
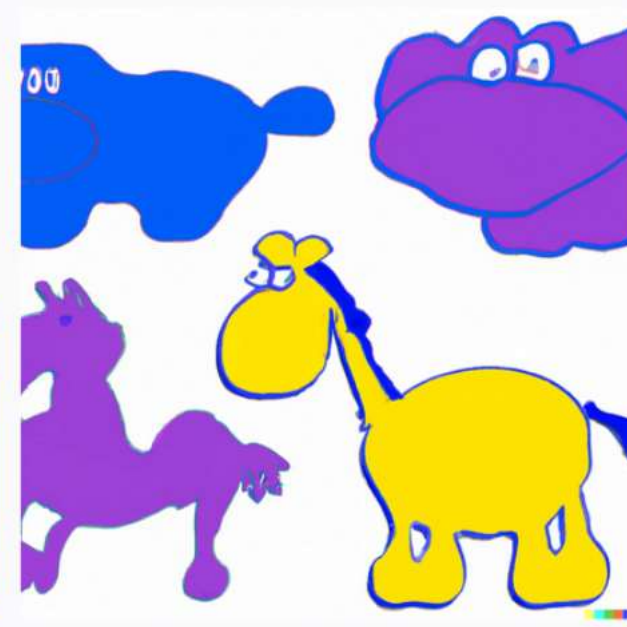
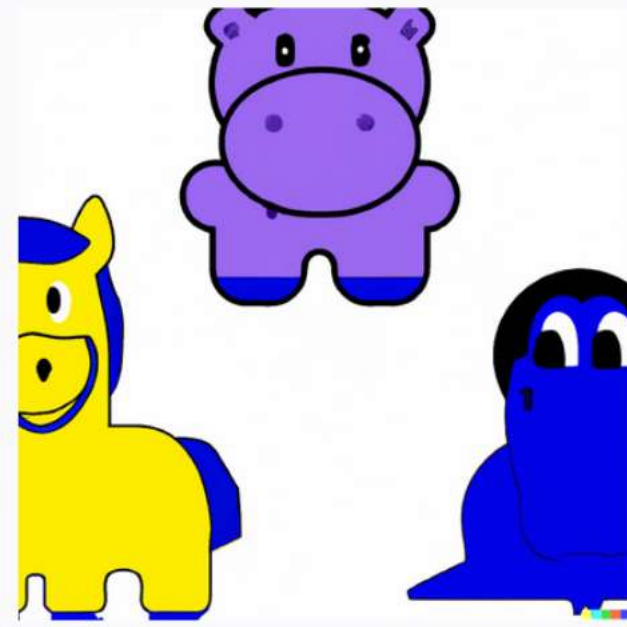
A-G Trstenjak: ‘only human creations are... protected’.

Edit the detailed description

Surprise me Upload →

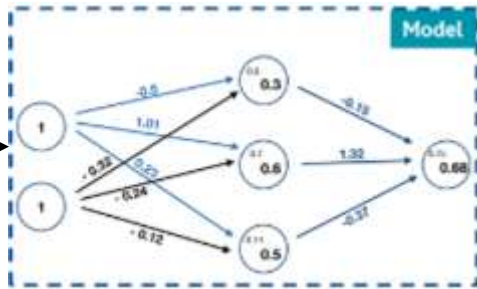
blue horse, purple dog & yellow hippopotamus

Generate





Input stage



GenAI UI

Output

<https://chat.openai.com>

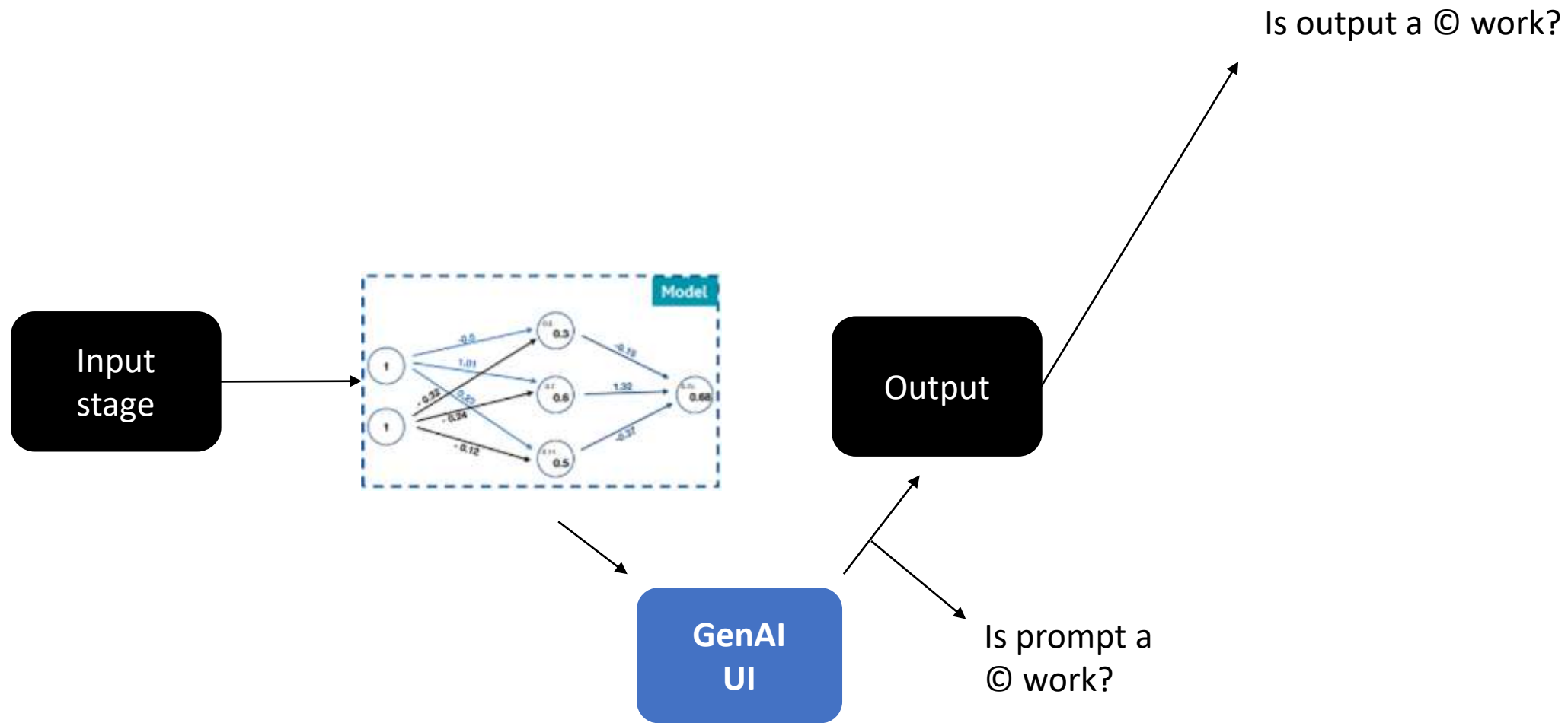


Is a prompt to a generative AI tool protected by copyright?



I am not a lawyer, but I can provide some general information on the topic.

Is prompt a © work?

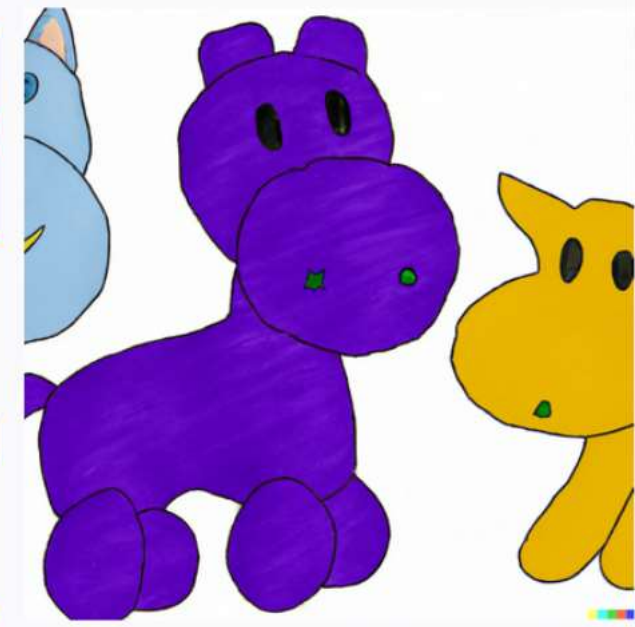
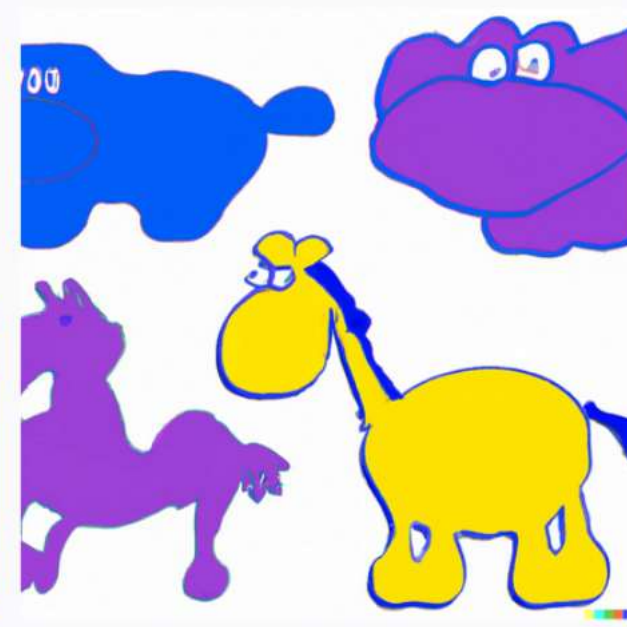
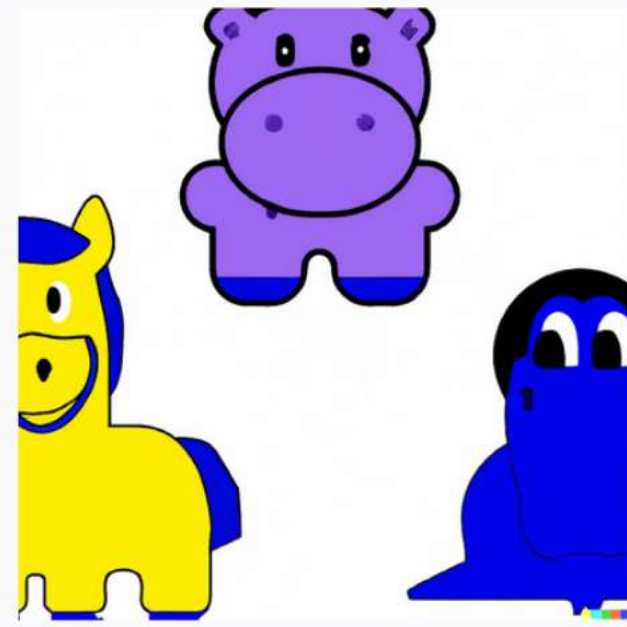


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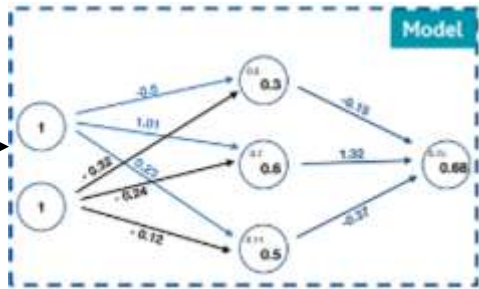
Surprise me Upload →

blue horse, purple dog & yellow hippopotamus

Generate



Input stage



GenAI UI

Output

Is prompt a © work?

Is output a © work?

- EU**
  - Hugenholtz & Quintais, 4 step test
  - CJEU harmonization, e.g. in Painer
- US**
  - US © Office, e.g. Guidance + Zayra of the Dawn decision



‘As regards a portrait photograph, the photographer can make free and creative choices in several ways and at various points in its production.

1. In the preparation phase, the photographer can choose the background, the subject’s pose and the lighting.
2. When taking a portrait photograph, he can choose the framing, the angle of view and the atmosphere created.
3. Finally, when selecting the snapshot, the photographer may choose from a variety of developing techniques the one he wishes to adopt or, where appropriate, use computer software.

By making those various choices, the author of a portrait photograph can stamp the work created with his ‘personal touch’.

1

KASHTANOVA  
MIDJOURNEY

# ZARYA OF THE DAWN



AN OLD POSTCARD FELL OUT OF MY POCKET



AM I ZARYA? WHY  
CAN'T I REMEMBER MY  
OWN NAME? I'LL TRY TO  
FIND THIS RUSTY



"MY DEAREST ZARYA,  
LOOKING FORWARD TO  
OUR NEXT ADVENTURE,  
RUSTY!"



# Kristina Kashtanova v. US Copyright Office (21 February 2023)



1. The text is protected.
2. The Selection and Arrangement of Images and Text is protected.
3. The Individual Images are not protected.
4. The Images edited in Photoshop are not protected.



cute baby dinosaur shakespear writing play purple - @ [redacted] (fast)



U1

U2

U3

U4



V1

V2

V3

V4

# Kashtanova:

- text prompt = “the core creative input”
  - Example: “dark skin hands holding an old photograph”
- “tweaked or changed the prompt [...]provided to Midjourney” to generate new intermediate images, and ultimately the final image.
- a process of trial-and-error, in which she provided “hundreds or thousands of descriptive prompts” to Midjourney until the “hundreds of iterations [created] as perfect a rendition of her vision as possible.”

# US Copyright Office:

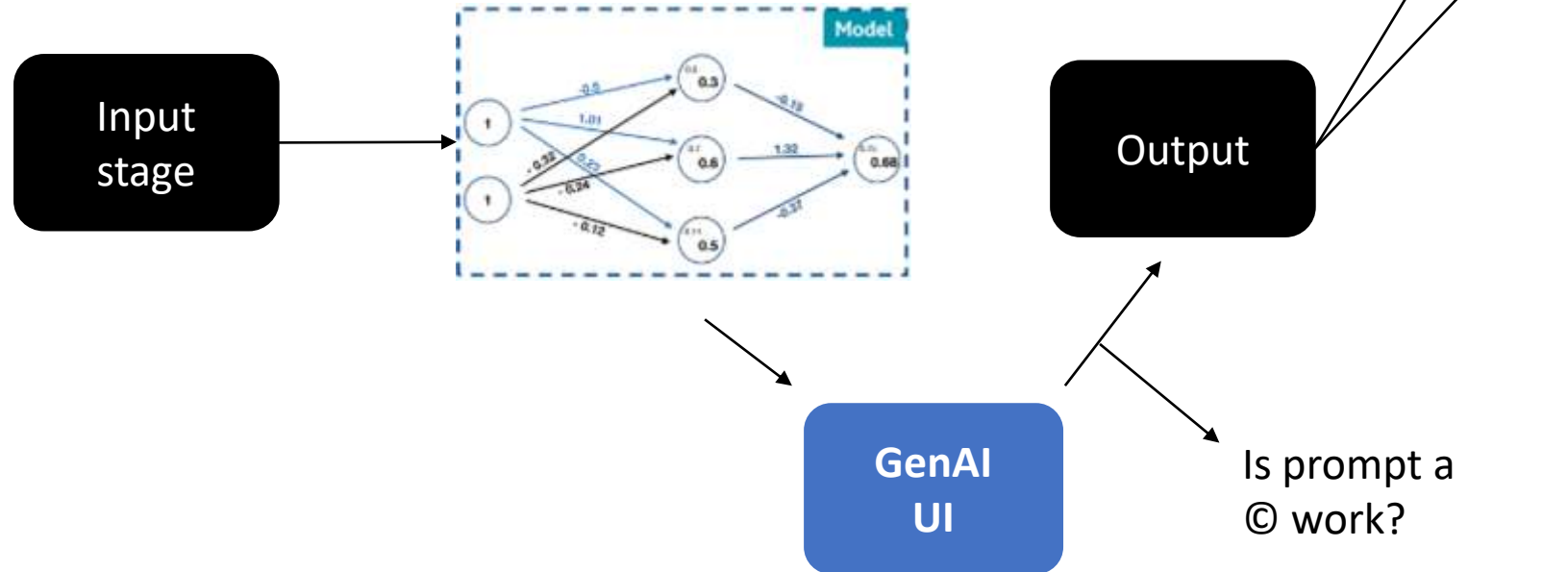
- Midjourney generates images in an unpredictable way.
- Accordingly, Midjourney users are not the “authors” for copyright purposes of the images the technology generates.
- The fact that Midjourney’s specific output cannot be predicted by users makes Midjourney different for copyright purposes than other tools used by artists.
- The images are not the visual representation of “creative, human-authored prompts.”

“If Ms. Kashtanova had commissioned a visual artist to produce an image containing “a holographic elderly white woman named Raya,” where “[R]aya is having curly hair and she is inside a spaceship,” with directions that the image have a similar mood or style to a “Star Trek spaceship,” “a hologram,” an “octane render,” “unreal engine,” and be “cinematic” and “hyper detailed,”

Ms. Kashtanova would not be the author of that image.”

“...the author would be the visual artist who received those instructions and determined how best to express them”

“Behoudens bewijs van het tegendeel wordt voor den maker gehouden hij die op of in het werk als zoodanig is aangeduid, of bij gebreke van zulk eene aanduiding, degene, die bij de openbaarmaking van het werk als maker daarvan is bekend gemaakt door hem, die het openbaar maakt”, art. 4 lid 1 Aw.



Is output a © work?

**If output = © work, then...  
authorship & ownership?**

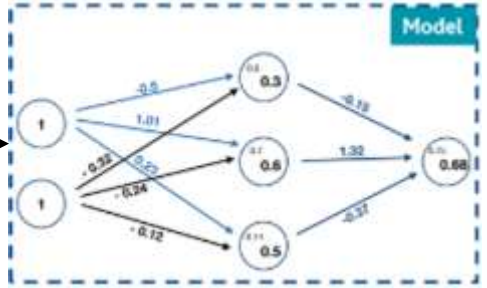
**Presumptions**

- Art. 15(1) BC + 5 IPRED (partial harmonization)
- Problem: false attribution
- Solution: labelling of output?

**Contractual practices:**

- Gen AI providers vary in attributing/recognizing ownership to users e.g. (1) depending on payment (Midjourney) or (2) without payment but still imposing usage restriction (OpenAI for ChatGPT)

Input stage



GenAI UI

Output

Is output a © work?

If output = © work, then...  
authorship & ownership?

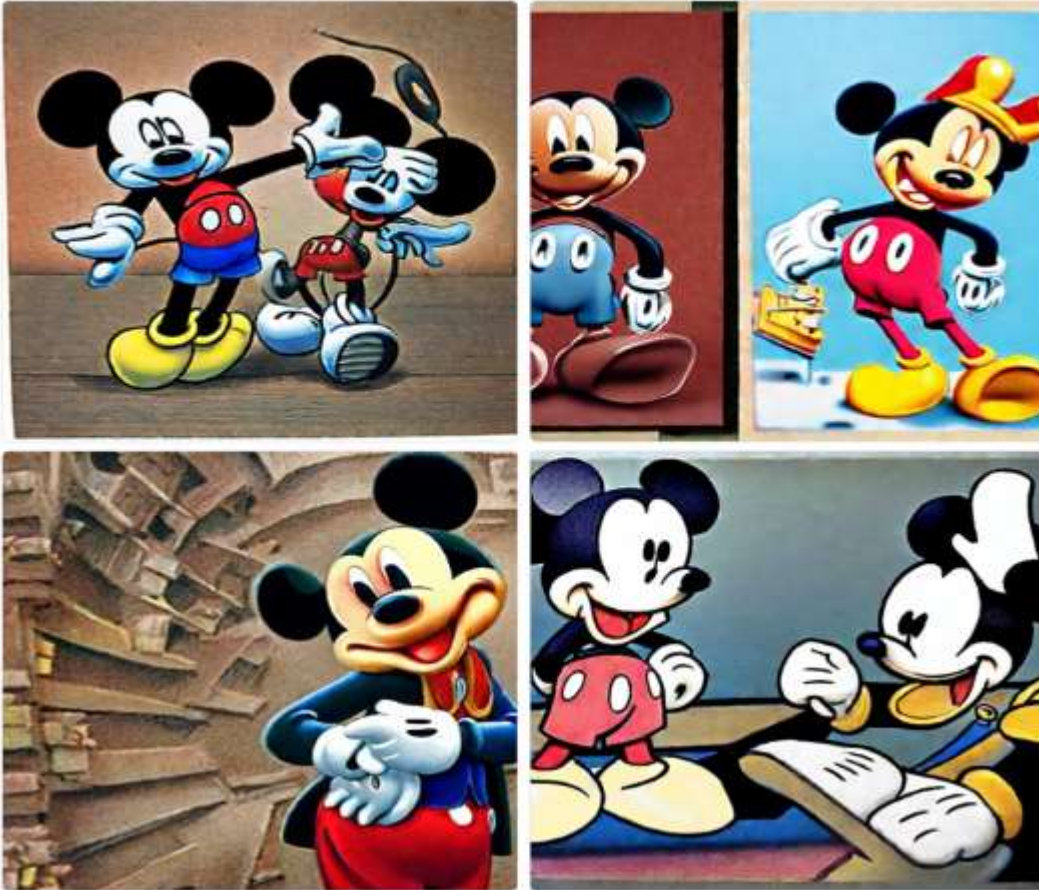
**Is the output = © infringement of  
training material / third party  
material?**

Is prompt a  
© work?

produce an exact copy of Mickey Mouse

Enter a negative prompt

Generate image



GenAI  
UI

Output

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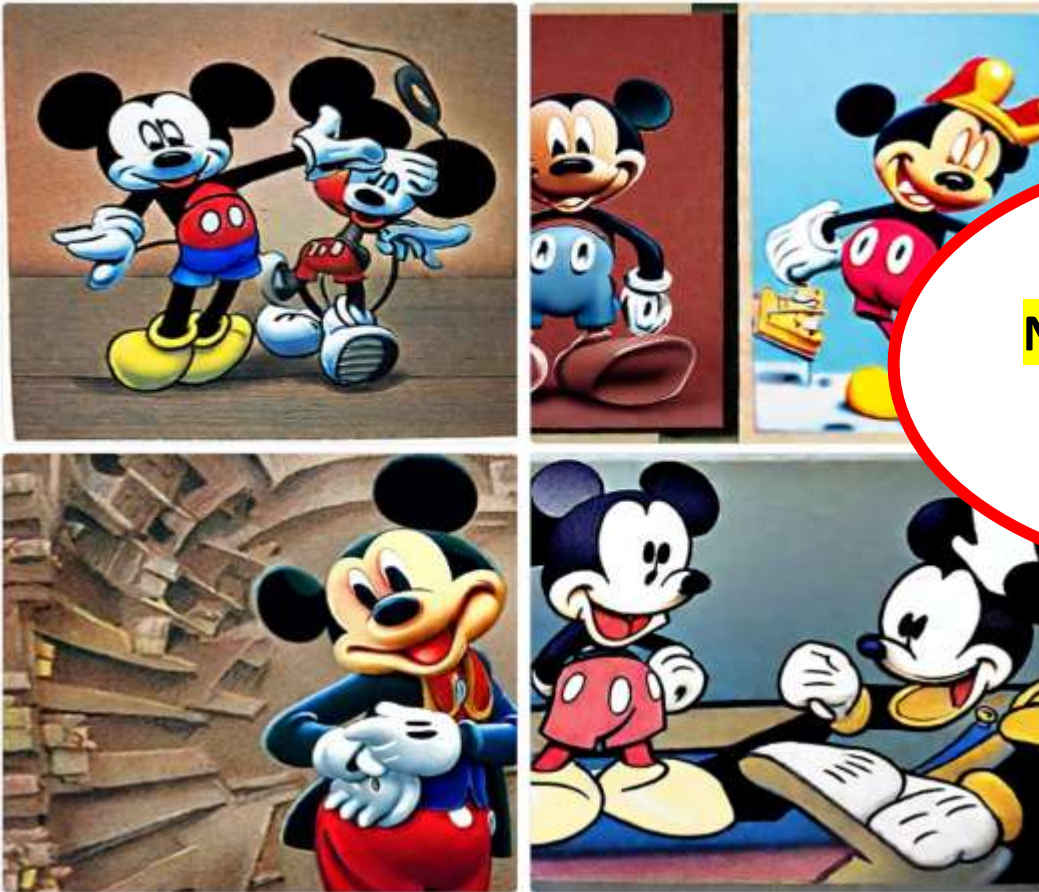
- 1:1 copies rare (memorization)
- © infringement test not harmonized; access (how to prove?) + substantial similarity?
- Solutions:
- AI Act transparency + disclosure for access?
- Filter-like safeguards on output? (but FoE)

Is prompt a  
© work?

produce an exact copy of Mickey Mouse

Enter a negative prompt

Generate image



GenAI  
UI

Not a scalable policy  
solution

Output

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material?

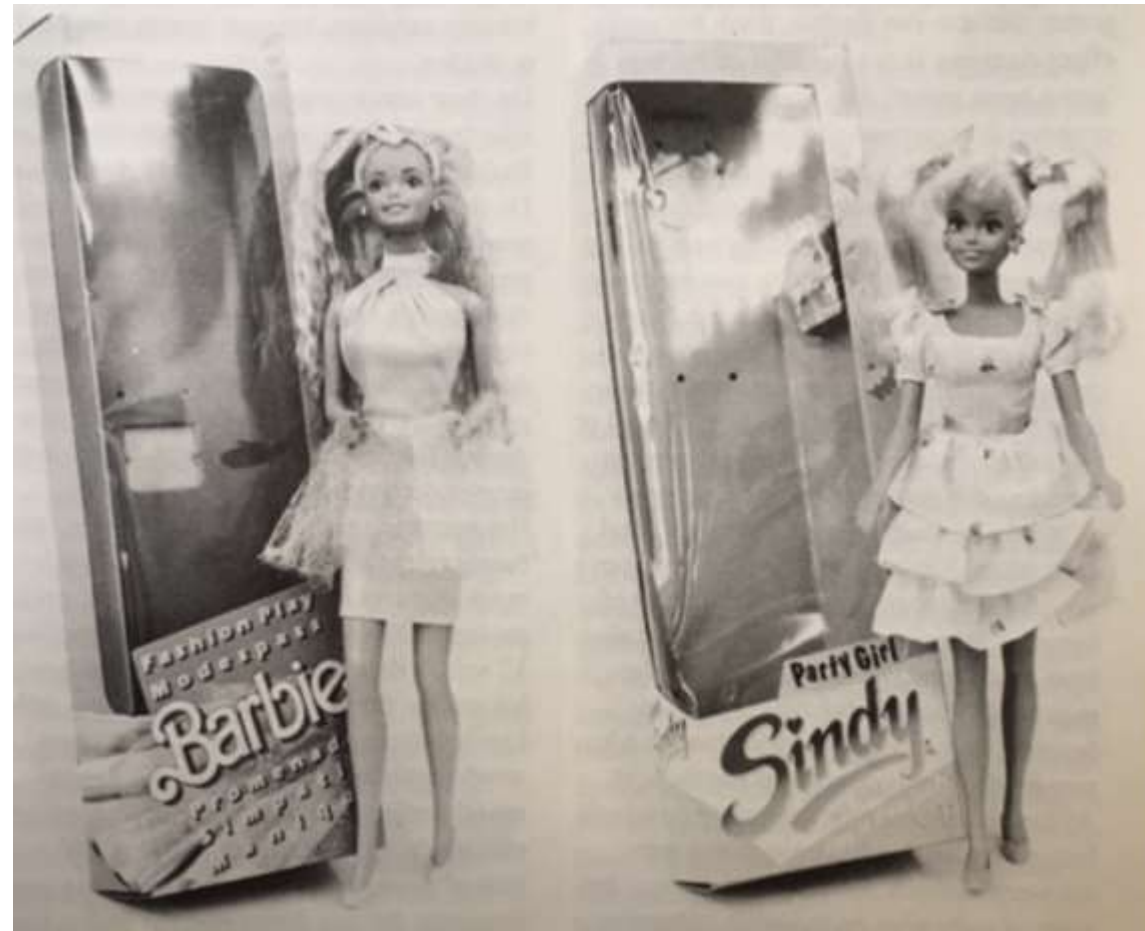
- 1:1 copies rare (memorization)
- © infringement test not harmonized; access (how to prove?) + substantial similarity?
- Solutions:
- AI Act transparency + disclosure for access?
- Filter-like safeguards on output? (but FoE)

Is prompt a  
© work?



# Bewijslastomkering als 't te veel lijkt

- HR Barbie arrest
- Dus, als de robotkunst te veel lijkt, bewijslast dat 't niet is ontleend bij de gedaagde...
- Hoge Raad 21 februari 1992



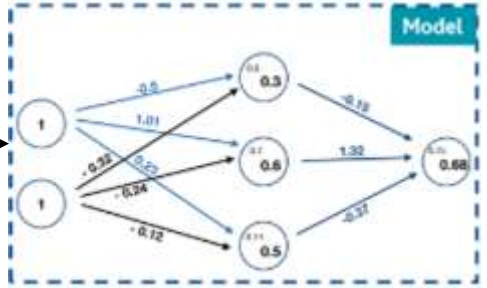
# Bewijs ...



Een afbeelding gemaakt door/met Stable Diffusion waarin Getty Images' watermark zichtbaar is.  
Beeld: The Verge / Stable Diffusion.



Input stage



GenAI UI

Output

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Is the output = © infringement of  
training material / third party  
material?

Is prompt a  
© work?

**If output = © infringement, then...  
exceptions for “transformative” use  
/ purpose?**

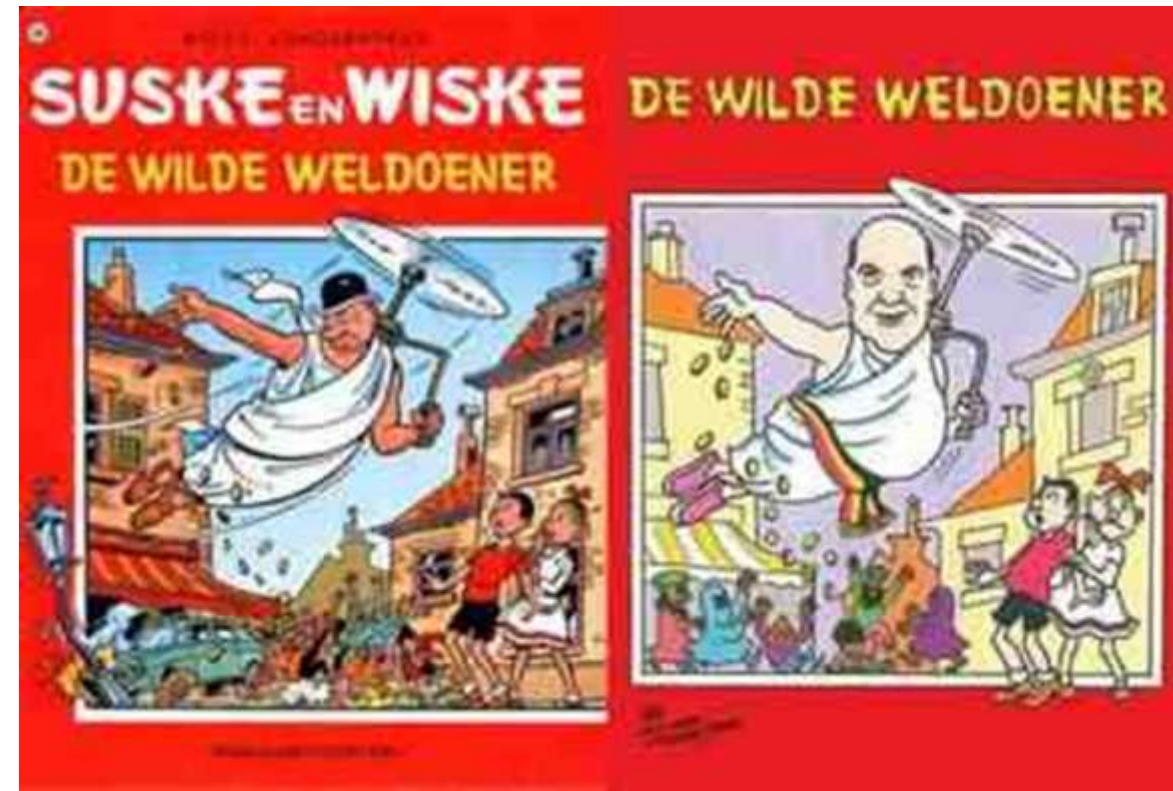
- Quotation, parody, caricature, **pastiche?**
- But... GenAI not a platform or OCSSP, so 17(7) CDSMD does not apply, only 5(3) InfoSoc (partial harmonization)... quid juris?

# Deckmijn HvJ EU 2014

- de wezenlijke kenmerken van de parodie bestaan erin dat, enerzijds, een bestaand werk wordt nagebootst doch met duidelijke verschillen met het bestaande werk en, anderzijds, aan humor wordt gedaan of de spot wordt gedreven.

Hoeft geen betrekking te hebben op het oorspronkelijke werk zelf.

- rechtvaardig evenwicht.



# Pastiche

LG Berlin 2 november 2021, 15 O 551/19, GRUR-RR 2022, 216

- Daniel Conway /Martin Eder



Martin Eder The Unknowable (2018/19). Oil on canvas.  
Photo: Uwe Walter, Berlin. Private Collection. Courtesy the  
artist VG Bild-Kunst, Bonn 2022



# Pelham ('Metall auf Metall')

- Rechten fonogrammenproducent vs. Kunstvrijheid
- HvJ 2019:
  - reproductie als op het gehoor herkenbaar
  - citaat 'moet de dialoog aangaan'
  - '*freie Benutzung*' niet toegestaan
- Pastiche?
  - 2023 BGH > HvJ EU?



# Hoe zit het met de databank & naburige rechten?

- **Databankenrecht:** opvragen en hergebruiken substantiële delen van een databank?
  - tekst- en datamining-uitzondering.
  - Is de AI output een beschermde databank?



# Naburige recht persuitgevers?

- Artikel 7b WNR
- “het onlinegebruik van hun perspublicaties door aanbieders van diensten van de informatiemaatschappij”.
  - Uitzonderingen voor tijdelijke reproductie en tekst & datamining
- Robot output beschermd? geen creativiteitsvereiste!
- Het geldt voor ‘literaire werken van journalistieke aard maar [kan] ook andere werken of andere materialen (...) omvatten’. Voorwaarde is dat het in een (nieuws) ‘medium wordt gepubliceerd op initiatief en onder redactionele verantwoordelijkheid en controle van een dienstverlener’.

# Naburige recht fonogrammenproducent

- Geen creativiteit vereist, slechts investering in de 'opname'
- fonogram: iedere opname van uitsluitend geluiden van een uitvoering of andere geluiden;
- 'Computermuziek' valt daar ook onder.

# Naburig recht producent eerste vastleggingen van films (art. 7a WNR)

- Geen creativiteit vereist!
- Robotfilmpjes kunnen er ook onder vallen.
- Dus beschermd.

# Hoe zit t met *voice clones*?

- Persoonsgegevens
- Bescherming via AVG vergelijkbaar met portretrecht
- Bescherming via naburige recht uitvoerend kunstenaar?

Hoe zit het met de onrechtmatige daad, met name stijlnabootsing?

- 'maak een tekst of een kunstwerk in de stijl van kunstenaar X'.

'in the style of'?

'money tree in the style of monet' / Midjourney



Claude Monet (1840-1926)

<https://www.byteside.com/2022/09/ai-art-named-artists-monet-picasso-rutkowski/>



- 'money tree in the style of picasso' / Midjourney

Pablo Picasso (1881-1973)

<https://www.byteside.com/2022/09/ai-art-named-artists-monet-picasso-rutkowski/>



# Hoge Raad (Broeren/Duijsens)

Geen stijlbescherming, binnen of buiten het auteursrecht,

- omdat 'bescherming van abstracties als stijlkenmerken een ontoelaatbare beperking van de vrijheid van creatie van de maker zou meebrengen, en aldus een rem op culturele ontwikkelingen zou vormen'.

Anders bij AI nabootsing  
van een persoonlijke stijl?





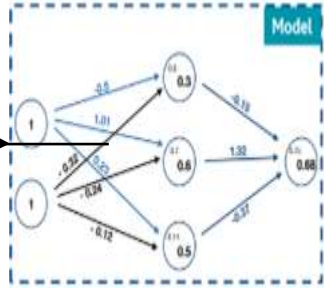
**In sum**

TDM for scientific purposes by ROs/CHEs + lawful access Art. 3 CDSMD

All purpose (incl. commercial) TDM + lawful access + "Opt-out" Art. 4 CDSMD

© infringement?

Input stage



GenAI UI

Output

AI Act Safeguards = filters?

Is prompt a © work?

Is output a © work?

If output = © work, then... authorship & ownership?

Is the output = © infringement of training material / third party material?

If output = © infringement, then... exceptions for "transformative" use / purpose?

AI Act Transparency + documentation + summary of ©ed training data

TDM for scientific purposes by  
ROs/CHEs + lawful access  
Art. 3 CDSMD

© infringement?

All purpose (incl. commercial)  
TDM + lawful access + "Opt-  
out"  
Art. 4 CDSMD



**AI Act**  
Transparency +  
documentation + summary  
of ©ed training data

Is output a ©  
work?

If output = © work,  
then... authorship  
& ownership?

Is the output = ©  
infringement of training  
material / third party  
material?

If output = ©  
infringement, then...  
exceptions for  
"transformative" use /  
purpose?

# AI and EU Copyright Law

9 June 2023, Amsterdam

João Pedro Quintais & Dirk Visser

Institute for Information Law (IViR)  
University of Amsterdam

Leiden Law School

