

# From Chance to Complicity in Art.

*Theory and practical experimentation with the Roxame software »*

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@postasis, 19 avril 2019

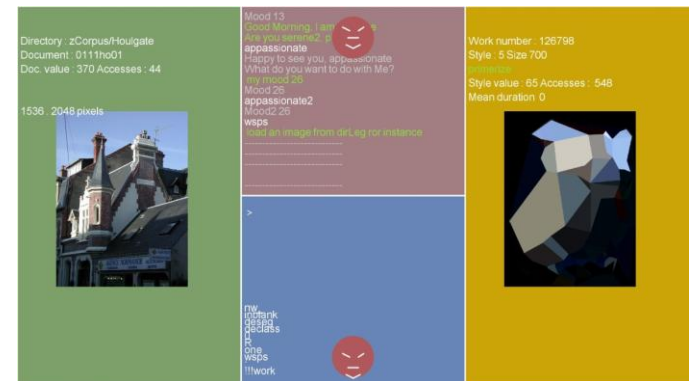
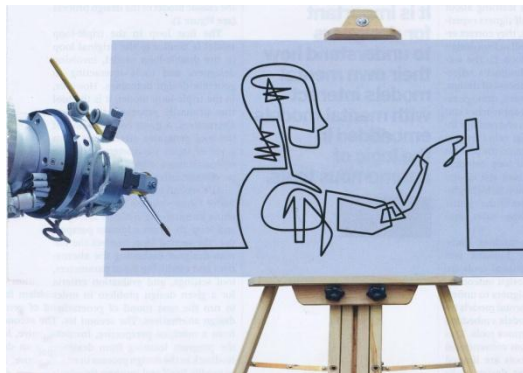
# Chance -> Autonomy

- Chance is the encounter between two independent entities.
- Independence of the machine can be built easily upon random() functions
- But a really interesting encounter with a machine demands more than head or tails
- How far can a machine be autonomous ?



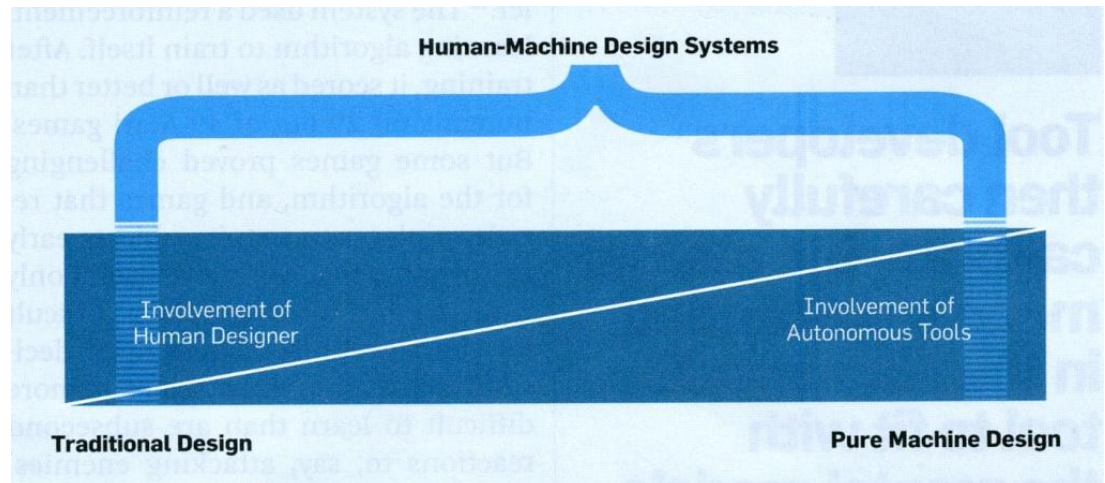
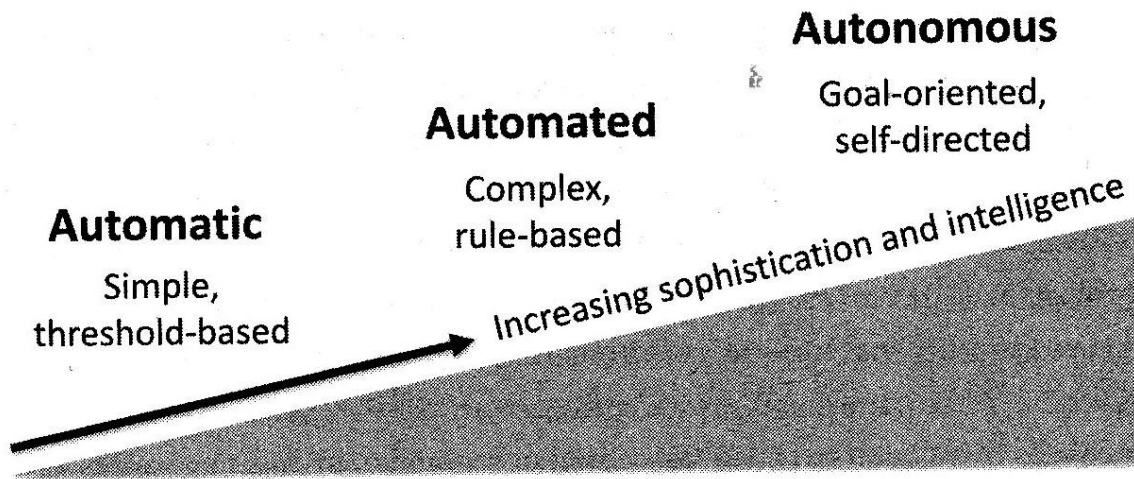
# How far autonomous ?

- This question is strongly topical today



# Autonomy level

- From « null » to « total » autonomy



# Roxame's autonomy levels

- Four levels at present

You let me do it my way  
You let me do it at random  
I show you alternatives  
I make suggestions  
OK, take control

>

# Space of Autonomy



*Crossbow*



*PGM*



*Loitering drone*

Geography, time, affordances



# Roxame's Space of Autonomy

- A wide range of possible actions
- Possibly running indefinitely

my set of filter types  
The main forms I know how to draw  
my main palettes  
my main types or worktypes (styles)  
my main geometrid operations  
segmentation and classification  
complexity augmentation operations  
complexity reduction operations  
my main serial modes  
my evaluation algorithms and functions  
my moods  
my main user interface modes  
How do you want me to behave ?



# More or less « intelligent » judgment

- More or less on three kinds of « intelligence »



RÉPERTOIRE  
UNIVERSEL ET RAISONNÉ  
DE JURISPRUDENCE.  
QUATRIÈME ÉDITION,

COMPOSÉ, réduite aux objets dont la connaissance peut encore être utile, et augmentée 1°. d'un grand nombre d'Articles, 2°. de Notes indicatives des changemens apportés aux Loix anciennes par les Loix nouvelles, 3°. de Dissertations, de Plaidoyers et de Réquisitoires de l'Éditeur sur les unes et les autres;

*PAN M. le Comte MERLIN, grand Officier de la Légion d'honneur, Conseiller d'Etat, Procureur-Général Impérial à la Cour de Cassation et Membre de l'Institut de France.*



*May be compared to algorithmic, statistic, neuronal*



# Roxame's decision

- Algorithms. Several tried. Presently two operational and efficient :
  - . density of variety
  - . use of the color (RGB and HSV) space

OK, your mark is 3

in EE difg 95

Variety score 3

Color scoe 0

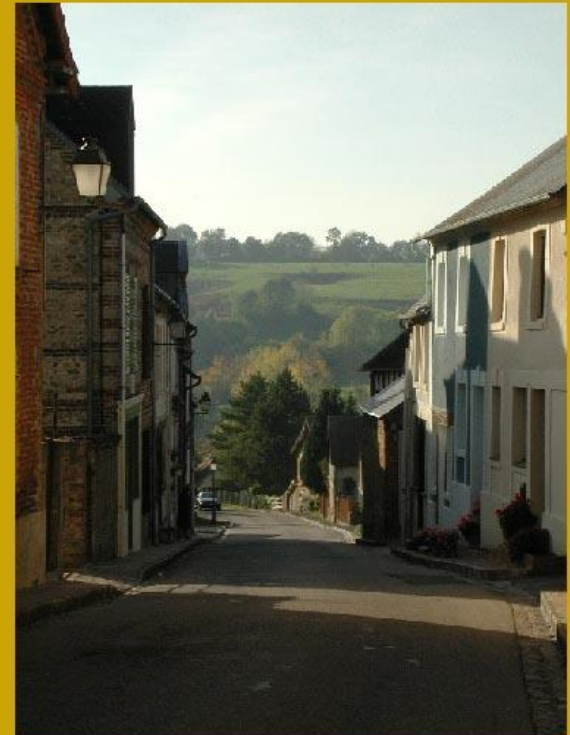
My mark is 1

- It's OK. Save it and let's go again. type YY

- Too bad. Throw it to the dustbin, type TT

- Let's try to make it better BB

>



OK, your mark is 12  
in EE difg 74

Variety score 15

Color scoe 1

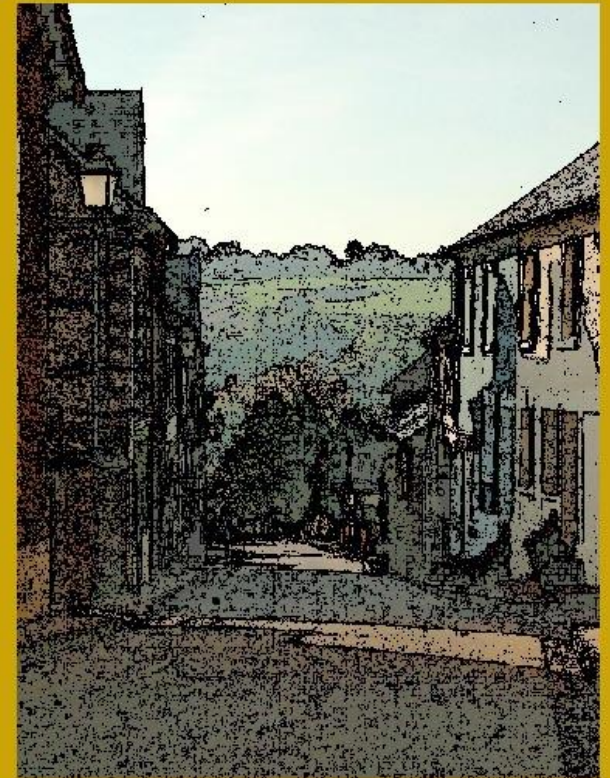
My mark is 8

- It's OK. Save it and let's go again. type YY

- Too bad. Throw it to the dustbin, type TT

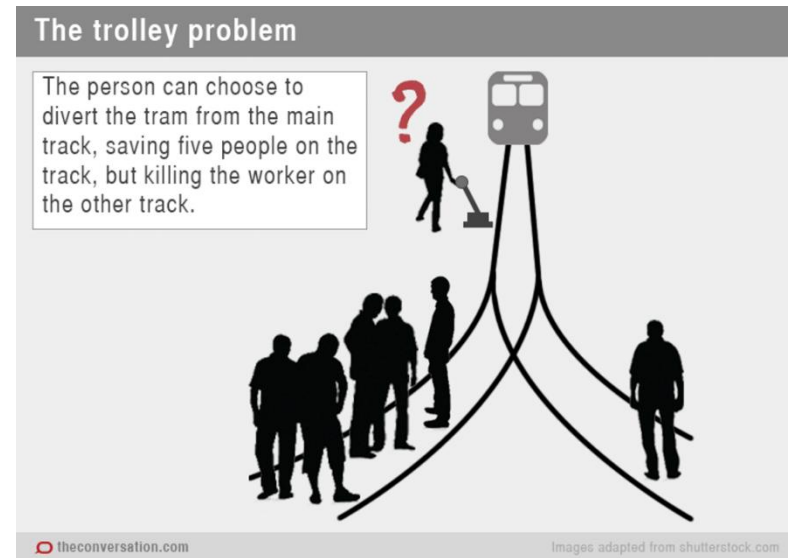
- Let's try to make it better BB

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# Algorithmic decision has limits

- Undecidables in life as in mathematics (Gödel), the trolley dilemma



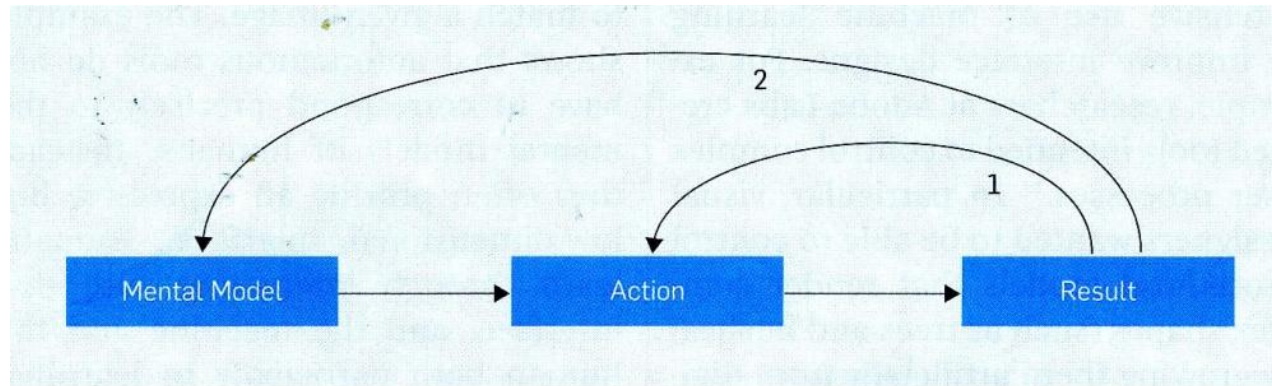
- And so, of course, in Art

# Learning

- In Art :



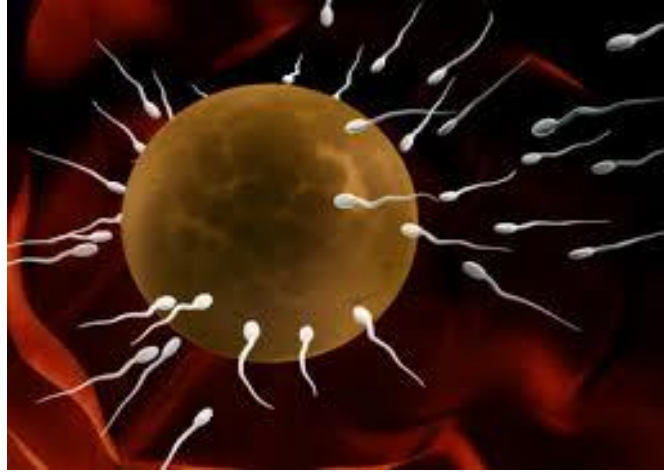
- A general model



- For Roxame, juste begun with small polls. Neural networks... let's hope in the future.

# Creation is always risky

- In life



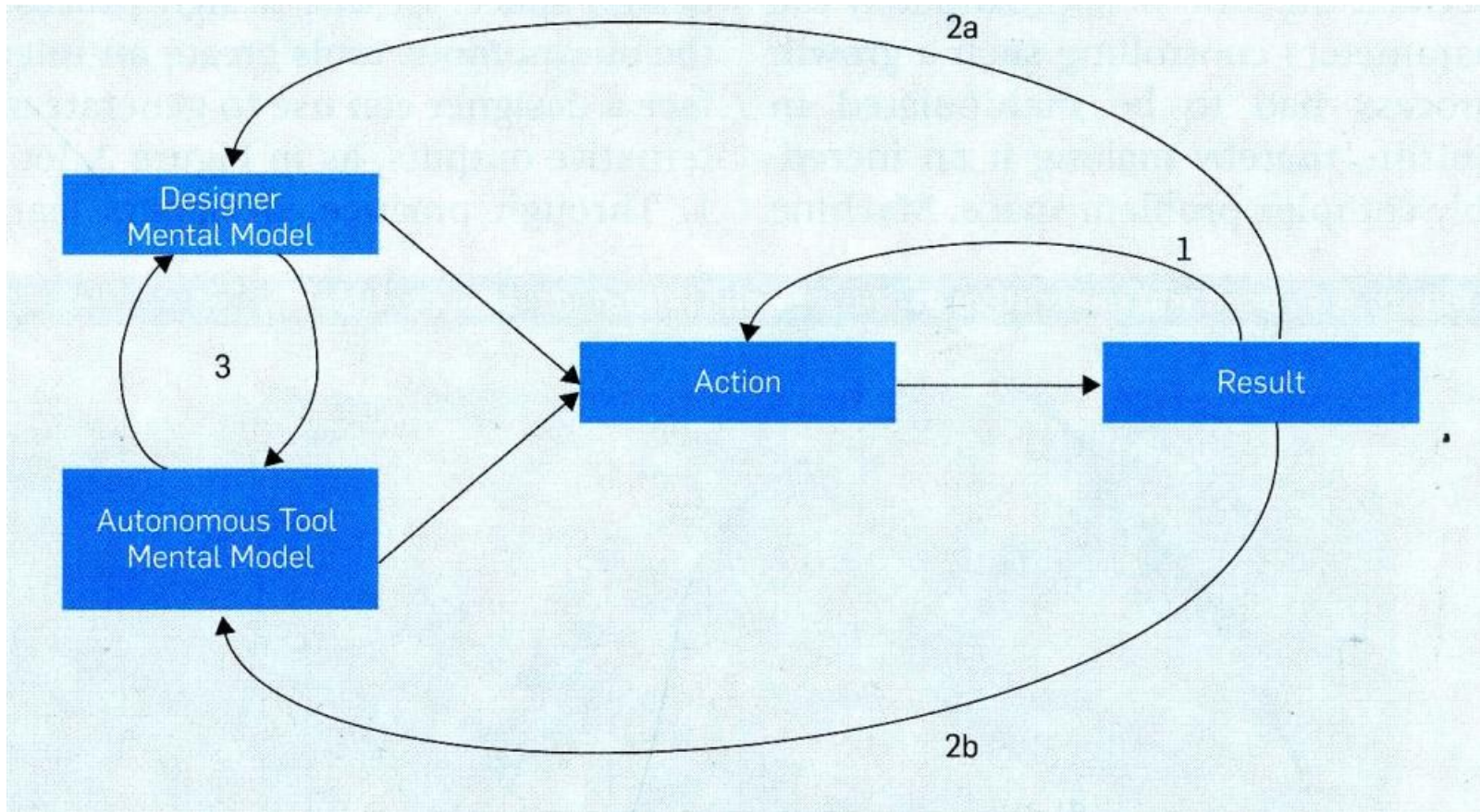
- In art



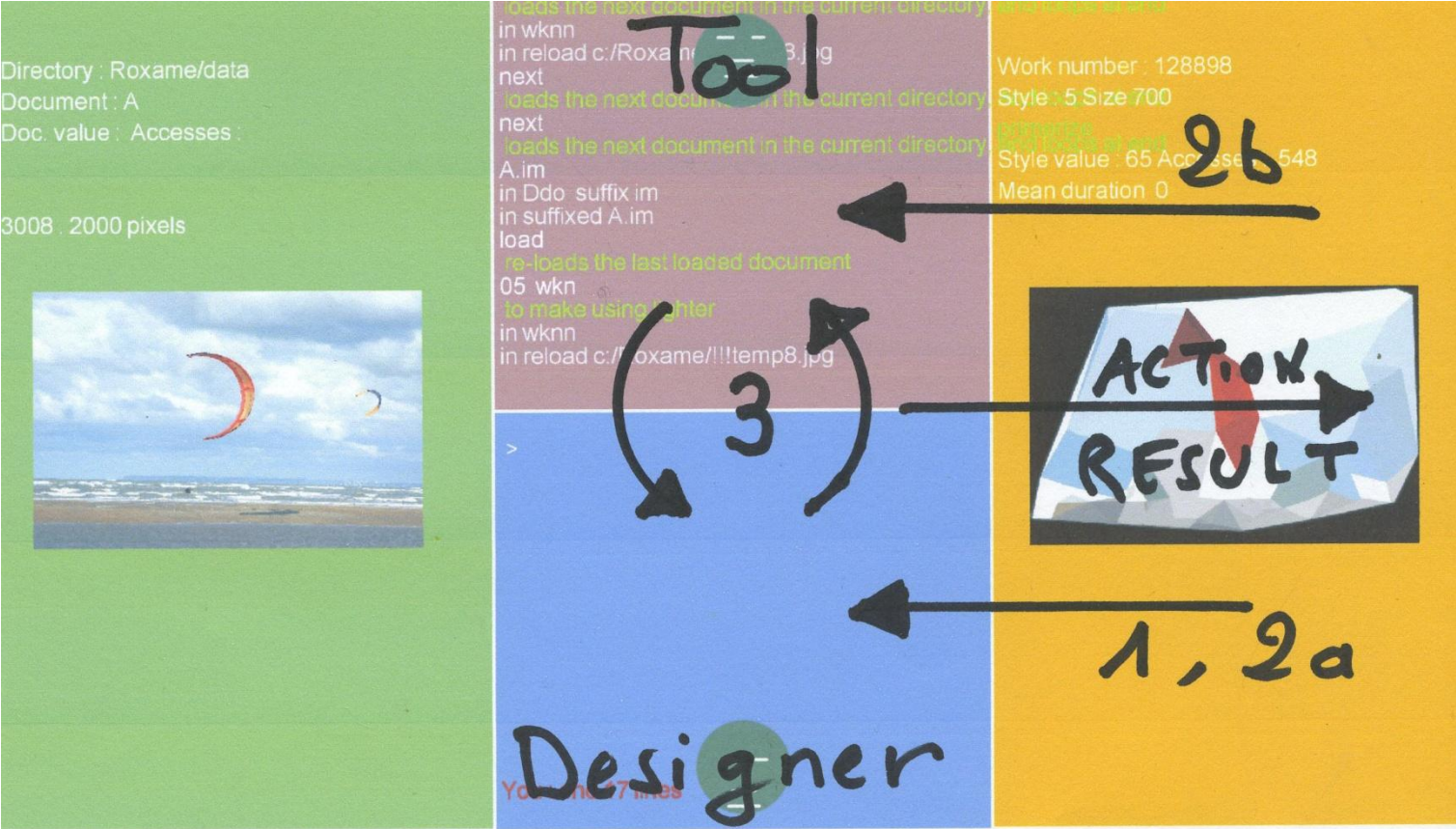


# Build the complicity

- The Seidel and al. model:



# Roxame seen in the Seidel Scheme

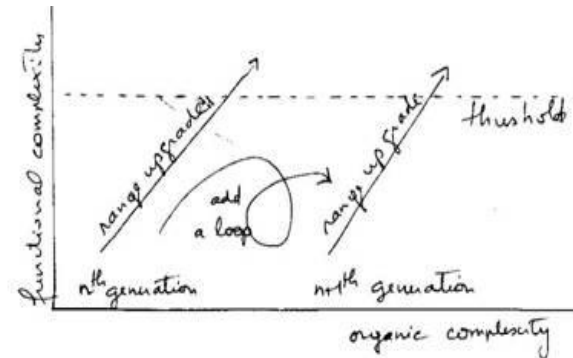


# Build the complicity

- Easy to say - hard to accomplish.
- E.g. : Not too little, not too much



- Hide (and automate) the chores





# Connected complicity

- Networks, cooperative work, swarms



# Connected creation

- In Art



- Towards swarms of connected Roxames ?
- Get all data on <http://roxame.com>