From Chance to Complicity in Art.

*Theory and practical experimentation with the Roxame software* »

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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 »

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 score 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 score 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
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, just 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