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CE DOCUMENT EST OUVERT AUX COMMENTAIRES

UNESCO MGIEP
The Gaming Challenge
<http://mgiep.unesco.org/gaming/>
Registration Form
2015/02/15

1. Name of the project

POIETIC GENERATOR

2. Team members

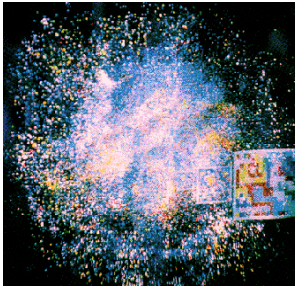

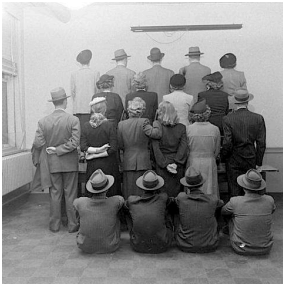
Name	Age	Gender	Nationality	Organization		
Olivier Auber	54	M	French, living in Belgium	Artist and researcher Free University of Brussels (VUB). Evolution, Complexity and COgnition group (ECCO) ecco.vub.ac.be Global Brain Institute globalbraininstitute.org		
Florence Meichel	48	F	French, living in UK	Independent researcher florencemeichel.blogspot.be/ www.reseauxapprenants.com		
Glenn Roland	32	M	French	Software development Gnuside www.gnuside.com		
Baptiste Benezet	35	M	French	Applidium Mobile centered software applidium.com		
Emmanuel Maa berriet	53	M	French	3D real time software http://lepixelblanc.fr/maa-berriet		
Jean-Louis Dessalles	57	M	French	Cognitive science researcher Telecom-Paristech www.infres.enst.fr/~jld/		
Cadell Last	35	M	Canadian	Evolutionary anthropologist, futurist, and science writer. GBI, Toronto theadvancedapes.com		
Ursula Kraft	54	F	German	Artist and designer www.ursulakraft.com		
Elisabeth Creseveur	45	F	French	Artist and designer elizabethcreseveursite.tumblr.com		

3. Game concept.


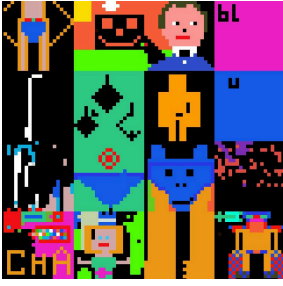

The Poietic Generator (PG) is a social network game designed by Olivier Auber in 1986, developed from 1987 up to now, over various experimental telecommunication networks as a non-profit Art and Science research initiative, thanks to many contributors and players.

Although the concept may seem old, the adventure has just begun!




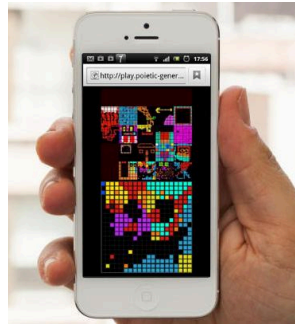
The PG game takes place within a two-dimensional matrix in the tradition of board games and its principle is similar to both Conway's Game of Life and the surrealists' Exquisite Corpse. Other sources of inspiration of the PG are Herman Hesse's Glass Bead game and ancient ritual practices such as Sand Painting and Mandala drawing. However, the PG differs from these models in several aspects. It is not an algorithm, like in the Conway's Game, but human players who control, in real-time, the graphic elements of a global matrix, on the basis of one unit per person. Unlike the Exquisite Corpse in which there are always hidden parts, all the players' actions are visible, at all times, by each of them. The GP offers not only a spiritual practice such as Mandalas do, but also the opportunity to participate in an Open Science research on collective phenomena.

			
Poietic Generator. Illustration of the concept (1988)	Hevajra Mandala	Surrealist movement, founder of Exquisite Corpse game	Chameleons skin as a Conways's Cellular automata

The project has been launched at a time when technology did not allow massive experiments (max 50 players). Nevertheless, small scale sessions performed with various online communities, schoolchildren, etc. have provided a good proof of concept.

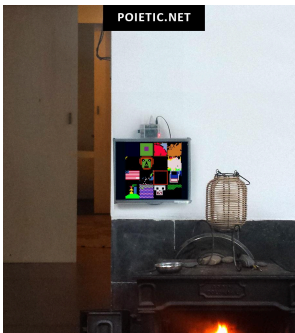

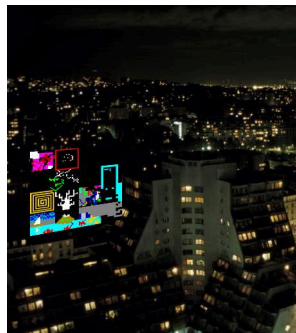
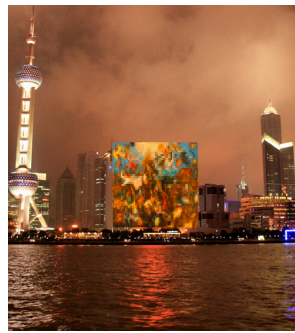
			
Some images designed by the players of the early Poietic Generator's versions			

Thanks to a successful crowdfunding campaign launched in 2012, a new free and open source version of the PG has been published in 2014 for the mobile internet.

			
GP workshop Mumbai, India 2014	Classroom experiment Brussels, Belgium 2014	People playing GP in a café. Brussels, Belgium 2014	Gp works on any kind of PC or mobile device

The PG can now be played in real time by hundreds or thousands players, whatever their location, age, language and educational level.

The living global image made by PG players is available everywhere and can be displayed wherever the people like to do it: at home, at school, on building facades, etc.

			
Home display (screen + Raspberry PI), 2014	First outdoor display Brussels, Belgium 2013/2014	Urban display, San Paulo, Brazil (project).	Urban display, Shanghai (project).

The Poietic Generator is published under the Free Art Licence

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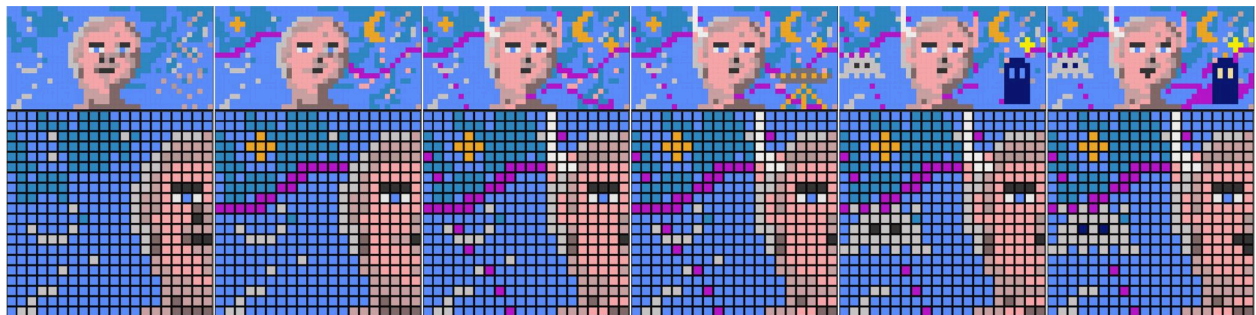
- Reference site : <http://poietic-generator.net>
- Play : <http://play.poietic-generator.net> or <http://poietic.net>
- GooglePlay & Applestore: poietic
- Real time global image: <http://live.poietic-generator.net>
- Source code: <https://github.com/Gnuside/poietic-generator>
- Wikipedia: http://en.wikipedia.org/wiki/Poietic_Generator

4. Objective of the game

There is no concept of winning or losing in the Poietic Generator, the goal of the game is simply to collectively draw recognizable forms and to observe how we create them together.

Every player draws on a small tile of a global mosaic formed by the dynamic juxtaposition of the parts manipulated by all the participants. Everyone can therefore change, in real time, the drawing in his/her tile, depending on the overall state of the image which itself depends on the actions of all the individual players. Out of this cybernetic feedback loop emerges a kind of narrative: autonomous forms, sometimes abstract, sometimes figurative, appear in a completely unpredictable manner and tell stories.

Timeline of a GP session (only 2 players in this example)

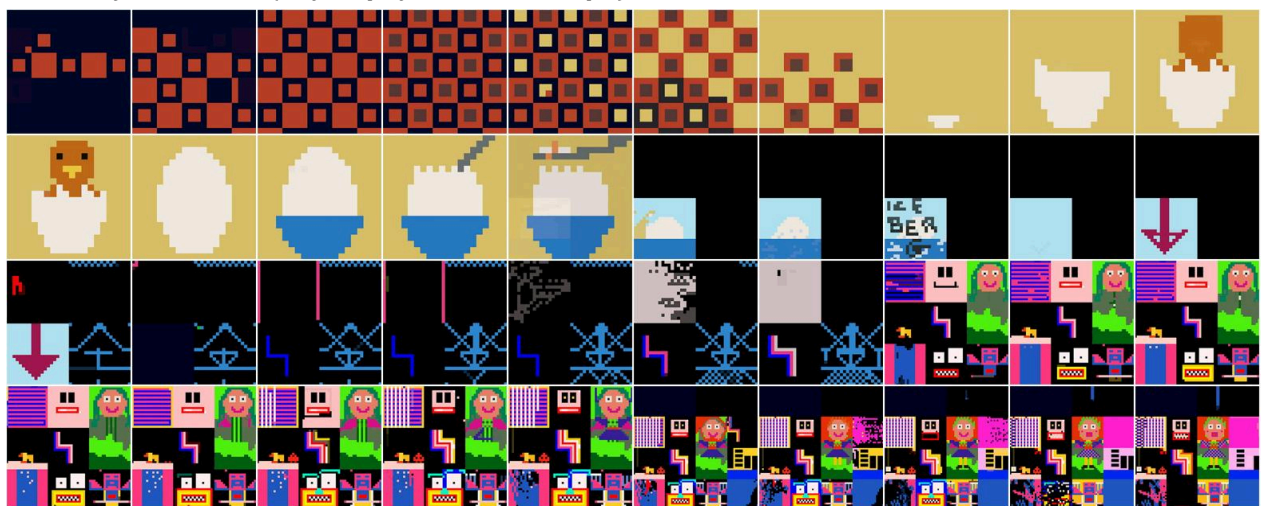


Individual tile of player 1 (parameterized: 20x20 pixels) + global image made by player 1 & 2.

Consequently, the PG offers very rare and extraordinary experiences:

- being both “in” the crowd and “above” it, in order to observe the collective behavior and adapt our strategies;
- facing a radically unpredictable otherness in which we nevertheless know that we have some influence;
- “feeling” the autonomous life of this otherness and learning to “dance” with it.

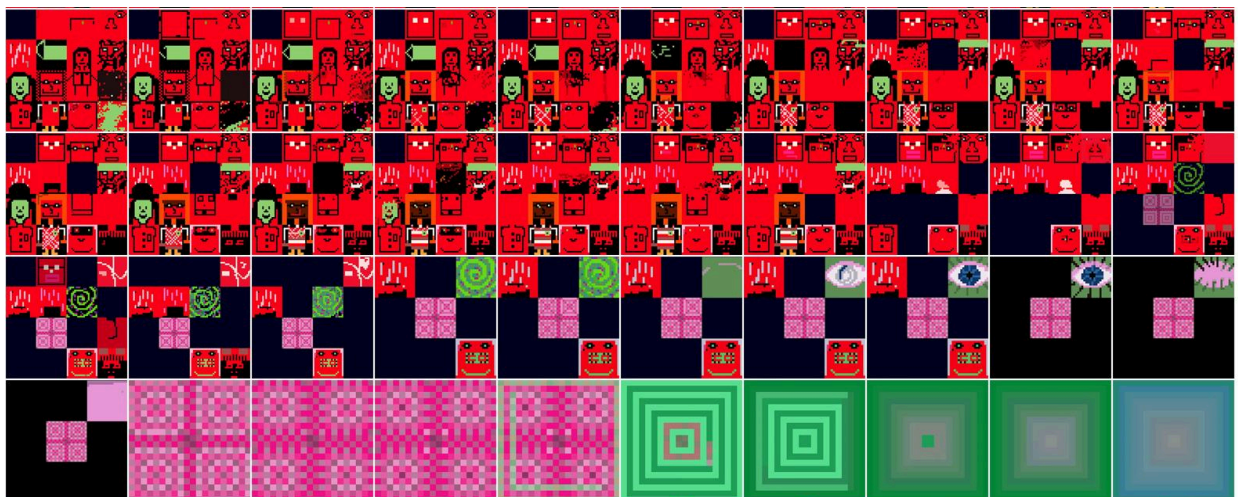
Timeline of a GP session (only 16 players in this example)



The overall image is continuously formed in the style of a spiral, that is to say the sign of the first player occupies the whole image, and then, the signs of the newcomers are juxtaposed in the first winding around it, and so on. A zoom in/zoom out feature ensures that the image constituted by the juxtaposition of all signs, is permanently visible to all.



Dozens or hundreds players who do not know each other and interact only in this way, naturally coordinate themselves to create an overall image recognizable by all. Here, almost a monochrome!

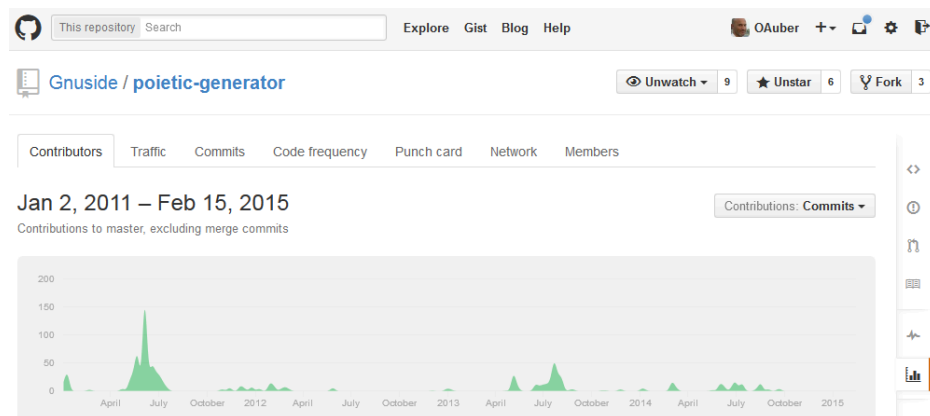


If a player forfeits the game, his/her sign immediately disappears and its position remains empty until another player occupies it. Video : <http://www.youtube.com/watch?v=KXJ4TiJ7mQo>

The first collective GP experiments - albeit of reduced scale for now - suggest that this situation provokes deep thought among players on their identity, their status and their strategy in groups and society. It has been observed that the individual strategies of those who regularly attend GP sessions evolve over their experiences: they obviously learn to “feel” the global behavior and to enforce their impact on it.

This co-design process is not only active at the level of the image creation, but at the ones of the gameplay embedded into the source code and the science research.

- The free and open source program of the PG can be customized at will in order to experience the impact of some set of rules on the collective behaviors (i.e. giving the GP a third dimension). Even the slightest change in the gameplay have to be transparent.
- As the PG is an Open Science Initiative, the results of studies (theorization, statistics, dataviz) that we will be led to produce will be published in full under a free license.



5. What peace and sustainability issues does the PG engage with?

"Games and war are symmetrical with respect to sacred." Mircea Eliade.



Game as empowerment. As experience seems to reveal, it is as if, out of the pleasantly frustrating situation set by the PG (being just a tiny part among a whole), emerges a certain regime of competence and some kind of expertise of the phenomena that drive collective behaviors and system dynamics in real life.

"Feedback", "mimesis", "attraction for unexpectedness", "shape recognition", "emergence of norms", "cycle of order and chaos", etc. are the phenomena which allow the human community to

get to know itself and to expand its cultural forms. These phenomena could also lead to violence, civil unrests and wars when they are left to themselves blindly, or when they are misused.

That's why we expect that the PG could become a sandbox where everyone would become aware of collective phenomena. By practicing the Poietic Generator, people would learn a critical and deep thinking about what they are experiencing with the other players. Therefore, they would be empowered to face the same phenomena when encountering them in real life. We hope that the challenge proposed by the GP could create a new kind of knowledge mastery shared by the people on a wide scale.



Game as a commons. There have always been metaphorical connections between games and the reality of social relations.

A metaphor can take centuries or millennia before being accepted. So we play Chess or Go without fear, and this practice lifts the spirit, by leaving to all a very great freedom of interpretation of the metaphors that they offer.

Unfortunately, today we are in a hurry. Imposing a peculiar game and a peculiar metaphor seems to have become a strategic issue in the fields of media, industry, finance and politics. All the authorities want to handle games in the direction of their own interests, and the tendency to gamify everything is bringing us considerable confusion.

Consider the example of a modern game: Minecraft. When armies of children play Minecraft online, what do they do? Certainly, they have fun and they develop their cognitive abilities, but mostly THEY WORK unwittingly for the company that holds the game, namely Microsoft, which just bought it for \$ 2.5 billion. Therefore, players are not at all in a game but in the crude economic reality. In return, obviously this crude economic reality does everything to let children think, as long as possible, that they are just in a game. In contrast to industrial games, the ambition of the Poietic Generator is to become a commons, just like chess and Go.

Therefore, the PG would help every gamer to feel and guess the real design of the system where they are playing/living, to test and observe which aspects are the most legitimate and how they impact the big picture/common life.

These are some very essential digital knowledge, skills and competences which can be transposed in a lot of contexts. We think this is essential if we want to set conditions for a sustainable life.

6. What sets the game design apart?

The Poietic Generator is not only a very funny and easy game that everybody is able to play, it is a sandbox that shows the many interactions between Local and Global, individual and social dynamics, how they are co-constructed in a real time and emerges an historical time.

At a meta level, and in a digital perspective, the Poietic Generator empowers its gamers by expanding their understanding of the notion of internal design of the systems in which they are taking part. We could say that the PG engages every player in an experience of Real Reality. We think that's something rare and precious, in order to learn how to live all together now and in the future.

7. The adventure has just begun! What's next?

As stated before, the concept of the Poietic Generator may seem old (1986). In fact, we assume that its roots are as old as the humanity.

From all eternity, humans have come together to co-create certain representations (with colored sand, pigments, etc.). From all eternity, we have reproduced these patterns on the surface of various supports (bodies, objects, furniture, tissues, etc.) which thus became magical. For example, if the "flying carpets" existed, it is not because they were means of transportation, but because the spirit of the group that created the patterns, travelled with them...



The question we have to solve today has its origin in networks and digital tools that are completely different from the old media of expression. Networks unfold according to new types of "perspectives" that we must build legitimately, otherwise no human expression will occur sustainably. The criteria of legitimacy that the PG is trying to satisfy are the following:

A) Does any agent A have the real right to access the network if he requests it? Can A leave the network freely?

AB) Is any agent B (present or future, including agents that conceive, administer and develop the network) treated like A?

ABC) If agents A, B and C (where ABC is the beginning of a multitude) belong to a network that meets the first two criteria, are they peers?

As we see, this goes far beyond developing a "business model". These criteria are the essential conditions to offer a model that may strike the right balance between fun and learning for peace, sustainable development and global citizenship. There is no utopia to imagine that the Poietic Generator could be a significant contribution in the construction of a growing ecosystem based on games, applications and ideas that would be articulated on these sustainable principles and ethics.

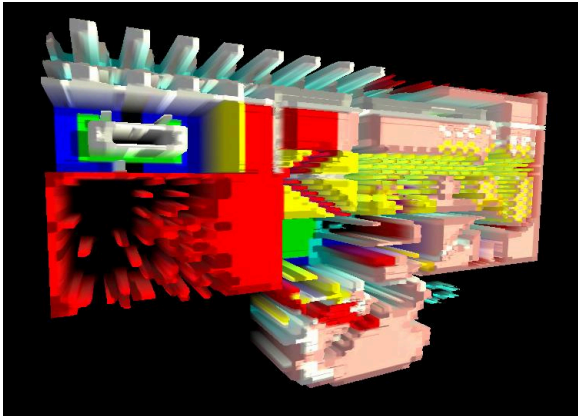
On this basis, everything is imaginable!



Poietic flor. Project for a school in the South of France, Ursula Kraft and Elisabeth Creseveur, 2015.



Poietic Generator embedded in space missions. Project for the European Space Agency, 2014.



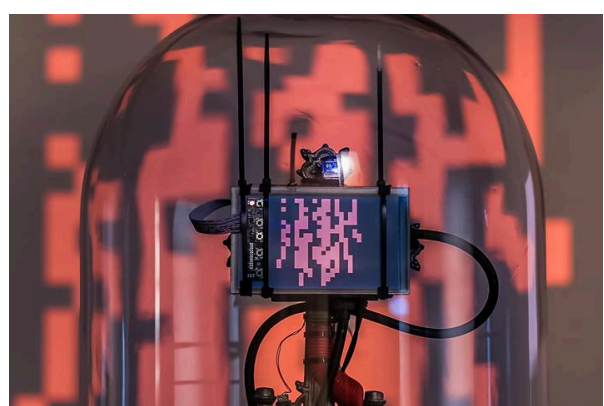
3D Poietic Generator, with Mâa Berriet, 2014.



Urban display, project for Shanghai, 2014.



Poietic real time skin for avatars, Second Life, 2012.



International Festival of Electronic Poesy, 2014.

Our project is in line with these worldviews:

Umberto Maturana.

Chilean biologist and philosopher.



"The experience of understanding arises as an unconscious shift in the attention of the observer that expands his or her awareness of the matrix of relations in which the local event under his or her consideration makes sense for him or her. Understanding is not a logical operation; it does not arise through deduction. Indeed, the expansion of vision and awareness entailed in understanding occurs to the observer unconsciously as his or her nervous system spontaneously makes relations between different processes and domains that until then appeared unrelated in the domain of his or her conscious reflections. Understanding is a poetic act that is lived as arising as an insight or as an inspiration, and not as a deduction." <http://www.univie.ac.at/selfconsciousness.html>

Philippe Quéau.

Former Director of Div. of Ethics and Global Change, UNESCO.



"A quoi doit viser l'éducation, aujourd'hui? A donner les moyens de comprendre le monde et de le transformer. C'est ce que l'on pourrait appeler l'éducation de base. Mais ce n'est pas suffisant. Nous avons besoin d'une éducation à la distance. Nous devons apprendre à nous déprendre de ce que nous croyons savoir, nous mettre à distance de nous-même et de nos schémas mentaux, pour les placer dans une perspective, une lumière nouvelle. C'est le doute roboratif et heuristique que Descartes mit au fondement de la conscience de soi. C'est aussi la critique des fins et des moyens, sans laquelle on risque toujours de s'enfermer dans une pensée formatée et figée." http://www.unesco.org/webworld/points_of_views/queau_1.html

Edgar Morin.

French philosopher and sociologist.



"Il est des paradigmes qui élucident partiellement mais aveuglent globalement, comme le paradigme cognitif qui a dominé la connaissance occidentale. Il enjoint de disjoindre ou de réduire pour connaître, et ainsi il interdit de concevoir une connaissance qui relie le local au global, l'élément au système dont il fait partie. le principe de réduction qui réduit un tout complexe à l'un de ses composants, qui l'isole de son contexte, produit l'incompréhension de tout ce qui est global et fondamental. le principe de disjonction s'allie au principe de réduction pour s'empêcher de concevoir les liens et les solidarités entre les éléments d'une réalité complexe et produit également l'invisibilité du global et du fondamental. Ainsi, il est des principes de connaissance qui aveuglent, et seuls des méta-point de vue, redisons-le, permettent de saisir ce problème (...) le propre de la pensée complexe est de comporter intrinsèquement un méta-point de vue sur les structures de la connaissance. Elle permet ainsi de comprendre le paradigme de disjonction/réduction, qui règne majoritairement sur nos modes de connaissance non seulement ordinaires mais aussi scientifiques, et finalement de comprendre les déterminants paradigmatiques de l'incompréhension." in La méthode 6 - Ethique- editions du Seuil - novembre 2004 - p. 131