Acadians

FICTION

par Elise Rigot | le 29/07/2021 | CC BY-NC-ND 4.0

Dear friend,

I found in the Arcadian's numerical archives the three documents below, those are notes from Louis Coxia, a spanish researcher who brings us so much by describing the evolution of Human-on-a-Chip technology.

You know that I am trying to find some nice pieces for the 50th anniversary of our Acadian community. Well, tell me what you think of those.

Hope you're doing well,
Best,

Jani Orïta

1.
Date : 15th of May 2028
Localisation : Bangalore, India
Title : notes_for_an_article_on_Acadia_service_for_*una nueva mirada*_spanish_journal

We are the only one responsible for the *good design* of our existence. Do you think you are able to transform yourself for the best ?

Thanks to biological models, we discover that not only genetic determinism was in charge of our way of behaving and our predispositions for diseases. We encounter that all our cells, our bacterias, our micro-organisms determine who we are. The intrication between a huge amount of information connecting DNA, microorganisms and epigenetic information lead us to our faith. DNA modification was totally illegal and unpopular since 2021 and the death of six people due to CRISPR modification of their genome between 2018 and 2021. On the contrary, microorganisms and our behaviour could easily be modified by purpose. Furthermore, biological determinism is not limited to our body, it reaches the social and economical parts of our life. A better health and happier state of mind make us more performative and attractive. *By design*, we could redefine our behaving for a happier, a better us. Who never dream of being more productive and powerful ?

On June 28, 2022, the well-known *Nature* journal published a cover where an organized network of Humans-on-Chips were living in harmony transferring biological informations to each other in order to

maintain themselves in a state of homeostasis. Scientists intended to build a big program including social sciences to depict how social changes could happen thanks to biological paradigms. *What if, we could bring you the molecule that would make you relax at the exact second before you would had a anxiety attack? What if, we could bring you the perfect action to make you more performative at a time when your company needs it the most ? What if we could bring your children more attention when they are at school ? What if we could make you a better person ?*

The reductionism was renewed by the idea of *New Biologism*, which focuses on Bio in a large scale, and in a symbiosis way. Thanks to the tracking of emotions, habits, and biological predictions, we were able to lead humanity in the *good* way.

A mondial flagship called "Bio for Good, lead Humanity to a better future" was launched in 2025 with high committee people of council for Science in the United States. People were making jokes on Twitter about Trump's 2020 slogan, "Better Humanity to Keep America Great Again." Two years later, Europe added a large program by 2040 entitled "Converging to Bio, let's lead Humanity to its best". Yet, people were ready for a new area of changes, were all kinds of mixing between biology and the future were possible. Each year, the committee gathered in a capital city, both in the United States and in Europe. Of course, scholars in social sciences began to warn us that before anything should be done, we had to take an interest in *what was the meaning of Good*. Again, we were facing a large amount of articles harping on the death of the progress of humanity, the need for an area of hopes and enlightenment. Donna Haraway claimed clearly: "At the age of the death of humanity, some get to search for their own privilege and keep up a battle of the past; I believe in a technology leading us to a new freedom of imagination. If we have to design ourselves, let's design ourselves with the remembrance of our fight: Feminism, Freedom, Plurality!", she wrote, as the very first congress scheduled on September 24, 2025, happening in Boston. In Europe, a symposium was held in Paris on September 14, 2027, where they intended to draw new directions, more critical, and raised questions about what makes us human beings, after all?

Thanks to billions of US dollars and euros dedicated to these programs, some Indian scientists finally launched new start-ups on the market, offering services to guide people towards a "Better Tourself". A design made to shape our existences. These were totally personalized. By the year 2028, a new leader called *Acadia* - having for slogan "*we design your life for the best"* - began its lifestyle coaching services. Of course, the concept wasn't new, since the Google Play platform was already offering tons of such services. The innovation was the *How*: here, the method was totally biological. You could change yourself using the very constitutive elements of your body: all your cells.
Far away from online full services, *Acadia* chooses to mix physical and online trackings. The first step of the service was a complete appraisal of your habits and your goals in life. What are the most important values for you? How do you imagine yourself at the age of 62? Which person do you admire most and why? Ask the service. Each user had its own little companion called an *Acadian,* designed to help him or her define his or her goals and how he or she wanted to live. They carefully reported their skills, habits, objectives and natural abilities, then launched a huge network of "better humans starting a new micro-humanity". Together, they shared their best practices, their better abilities. In each country, they intended to create both physical and digital practices for the common good.

Simultaneously, the associated researchers of the company, *Biosystem*, based in Bangalore, began to become more and more effective. The *Better You* program was based on a biological model, called for the first time "Human-on-a-Chip" by 2014. They cultivated millions of human tissues. Their donors where the users of the services of *Acadia* which connected healthcare and life habits, explaining that the users were responsible for their own health and well-being, and that is why they needed to be proactive about it.

Interview : [programmed the 20th of May at *Biosystem* with Anju mail here]

Biography : Louis Coxia is a Madrid based journalist specialized in new technologies. He has been interested in life transformations and editing since his Master's degree. He led an investigation for an online spanish journal, *Una Nueva Mirada,* within the *Biosystem* company where the Human-on-a-chip devices by *Acadia* are prepared, monitored, and maintained alive.

2.
Date : 28th of May 2028
Localisation : Bangalore, India
Title : Anonym_poem_found_Human-on-a-chip

you will live hundreds of lives in one
you will know each of the possibilities
you will not choose
this power is not offered to you
you will serve the princes of this world
you will be test for their own lives
you will never be flesh
and sometimes
you will feel
growing the beginning of a body
your secrets will be futile
living people will think that you hold the providential information
in vain
perfidious, what they will read about you
treacherous, what you will say about them
unfortunate
knowing your failures
having too high hopes about yourself
they will kill your innards
you, little Human-on-a-Chip

3.
Date : 10th of July 2036
Localisation : Paris, France
Title : Interview_open source_Human-on-a-chip

Note : *In an old parisian building, I came to visit one of the pioneers of open-source Humans-on-a-Chip. I try to depict our interview both the discussion and the visual atmosphere because of the singularity of her lab.*

A brown lady drowses in a large leather armchair. Eyes half closed, she noticed me. With a look, she showed me to go upstairs. Up, we're facing a thick wooden door. The violent brightness of the room is blinding me. Behind the door, a huge laboratory is set up. In a flat universe of pictograms and smooth surfaces, one structure visually detached from the rest. A kind of installation, like an artwork, is set up at the middle of the

room. The piece is hard to describe, so many elements composed it. A swarm of pipes, fluids, pumps, cables, aluminum and screens are connected to each other. It's as if the casings of a machine were exposed. The structure seems extremely fragile.

- What is it ?

- What you are looking for.

- Is this... the Micro-Humanity ?

- Yes it is.

- How fascinating! How many chips are in there ? Is this alive !? I can barely count how many connections this object is made of.

- It lives, as far as I'll be here. Come. I show you.

She sits in front of a control station, facing the structure. I would say it is at least two meters high and tree meters long, but is has no depth. There is a dark screen made of a bunch of tubes. She switches towards a central processing unit whose type I do not know. I could not even tell since when such models have disappeared. A low res screen asks for a password. The brown haired lady taps a long code with her fingers. She launches a program named *Humanity+*. Long lasting tasks make the fan of the computer vibrate heavily. As the coding lines did their job, she began to tell me more about her project.

- When did this place was constructed ?

- The laboratory you see was build thirty years ago, for human culture cells.

- Why in such a building ?

- Well... The construction took place at the same time when public research stop totally to bankroll big institute. At that time, it represents tens of thousands of scientists who lose their subventions. Little by little, they couldn't do their job anymore and had to quit. Some of them decided to work in the companies who buy equipments and instruments of the scientific centers, others have done other things, like us.

- How did you begin the project ?

- With a few friends, we decided not to submit to this barbarism and to continue research in our homes, in a submarine way. Soon after, I proposed that we construct the project in my family home to build our ideal laboratory. We went to work. We had few means. But, we know some great specialists in low-cost technologies.

    We, who were scientists, knew that a major life-modeling and model-making program had begun throughout China and North America. Human hubris has no limit.

- How did you knew ?

- The modeling of human's body on a chip has never been a secret. Research policies around the world proudly displayed this goal. With high-scoring titles and beautiful stories, they played a time on the economy of promises. They played fictions and stories of new human destinies. Leaders sought an escape from the fatal ecology crisis. They had a nice story to tell: the ability to reshape, to redesign, the living from its small particle to large ecosystems. It was a way of escaping the fatalism surrounding.

- But yet, global warming was already scientifically proven for a long time, right?

- Yes, you’re right. To that, I have no explanation. The truth is not something easy to listen.

- How many years does it take?

- About ten years I will say. But we started very quickly, working with very basic technologies. With very precarious equipments. It was also quite interesting, because we could no longer trust our instruments blindly. We have learned to look a lot more at the results and sometimes satisfy ourselves with a single experiment where the academical methodology would require tens or even hundreds of it.

- What was your goal?

- We wanted to provide a completely free solution for human tissue analysis and miniaturization of the living. We wanted these cultures to serve citizens' projects and not the profit of the few companies that recently bought our nation-states. To put it simply: we wanted to do free science to serve humanity’s progress.

- Awesome!

- As you noticed, I am now alone. This laboratory no longer hosts scientists. It is not so much the lack of means that sank our ship. It is more the lack of care given to our project. Pretty ideas are fragile you know. It's like... Don’t make fun of me, but it's like... If there was a lack of love.

- I do not make fun, I take notes.

- ...

The program, meanwhile, has turned on. It displays a complex database. She is navigating through a very precise modelisation which contrast with the vetusty of the machine. She shows me the setup of her device. A 3D-interactive model permits interaction with the system. The structure looks really archaic. It’s in fact comparable to the first informatic programs without AI or machine learning. Every function of the system can be manage separately. Several zones seems to function with each other. From macro to micro. A first zone called environment gathers a lot of physical constraints : PH, temperature, chemical molecules, brightness, amino acids, and complex sugars. Each parameter can be set manually. Pre-programmed inserts are dated by years and by geographical area.

- Why is it mark: “Mexico 2023”?

- Due to a database and a sampling, we were able to establish a micro environment gathering the differentiating elements of the geographical area of Mexico city. Did you know that she belongs to the Coca-Cola group now ?
She said, lifting her eyes just above the strapping of her glasses.

- No I did not know...

- So we modeled, then reproduced, the real condition of Mexico in 2023, in a physical model. Come, take a look.

We are facing the huge heap of pipe, with the incomprehensible face for the neophyte that i am. She point me a tiny area with a laser, where you can see micro grooves carved in a transparent material. She stares at me.

- And here we go: this is Mexico in 2023!

She smiles at me.

- That’s quite something!

We went back to the 3D architecture. All other zones were classified with population types, and if we go deeper in the system, people’s names connected to the system are even displayed, and some even seem to be put into quarantine in enclosed systems.

- The idea might sound weird to you: we have been able to model “perfect examples” of human beings and bacterial missteps types, immune and genetic. Thus, our system, contrary to those developed by companies, does not work for a single person, but for a broader array of people, it works for a tribe if you prefer. Each experience done in here has been carefully reported in a lab notebook and displayed online for free. Little by little, we have been able to expect the development of chemical and biological substances and were willing to let people know the chemical components of this medicine.

- Why was this idea never realized?

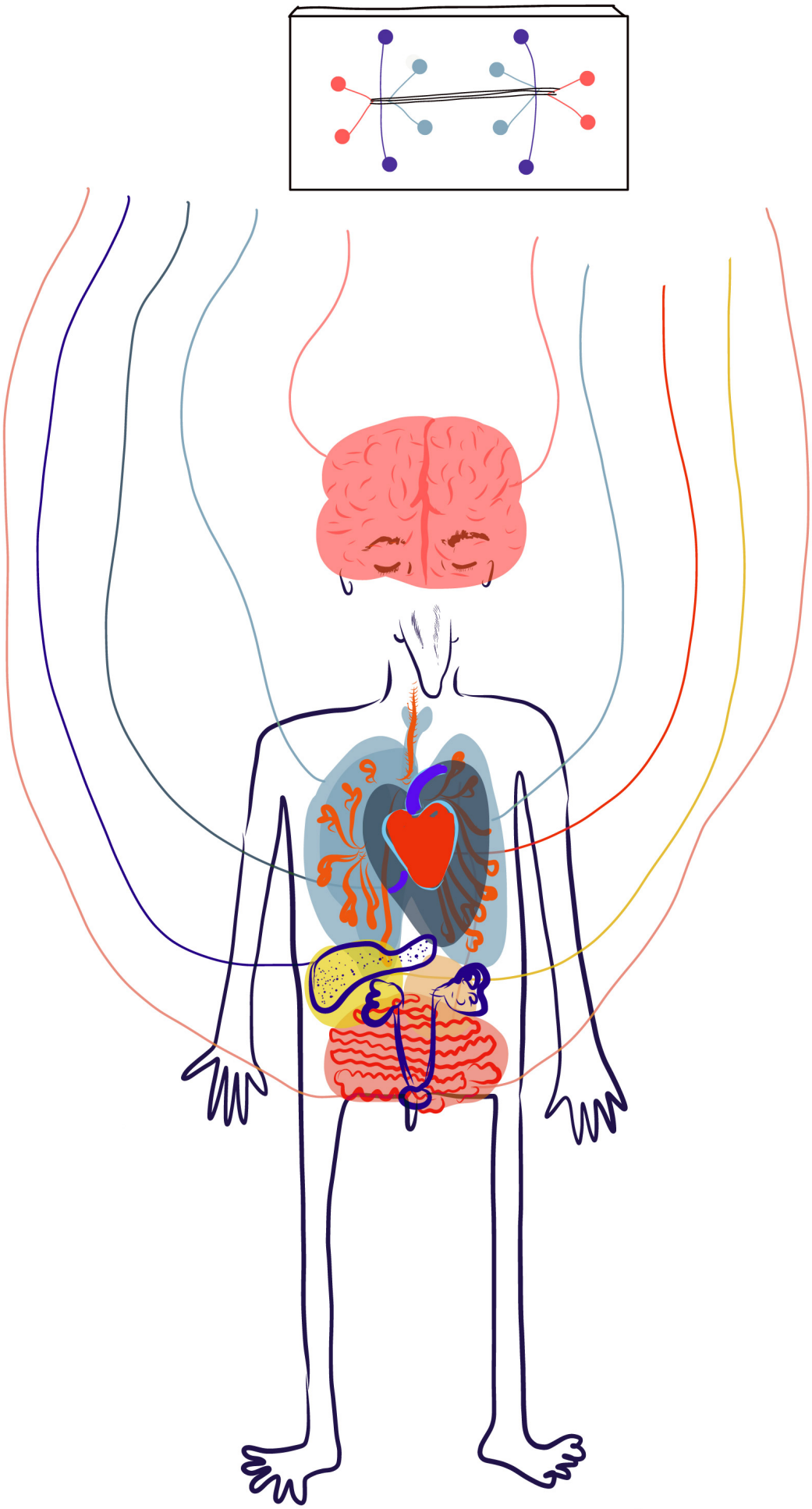
- It has been done, for some time, but for some time only… We had launched a few compositions and delivered some productions to those who asked the most. You might be too young to remember, but the huge migration of population in 2020 disrupted almost everything. Thousands of climate refugees quit the southern countries that had become too hot to live in. The need of such populations had nothing to do with good health but survival. And this was almost an impossible task. Projects about neo-colonialism that emerged some times later allowed a small proportion of the population to take a break, and they were promised to find fertile soils again thanks to technologies on edge, that actually did a pretty good job. Modelling human life is clearly not their priority yet.

- You look thoughtful.

- This device, my dear, is not a simple researching tool. If I do stay here, despite the dangers of city life, it is to look after all these human beings. I come to feed and take great care of them all. What I see in themselves, beyond of course their modelling on chipsets, is much more than a duty never to forget. It is the memory of a science devoted to modelling, going as far as the replication of each cell within a definite environment. Its is the memory of an environment, of a population, of DNA in a word. Who knows? One day perhaps we will send this shapeless item in far-off lands to repopulate a new planet with model human beings? Or perhaps will this item quietly rest in a museum display case as an evidence of our immoderation…

- Maybe the populations will stabilise and it will be a good response to a real need?

We left each other with a few words of goodwill. She offered a cup of tea. Without being able to explain it, I felt overcome by tiredness. I was willing to go back to the material comfort of my office at the journal’s. Far away from this city. Going back to work in our micro-editing space, in this huge building, three floors above my flat. I would rather go back home before being unable to leave. As I left this place, my feelings were confused. Outside, heavy clouds would slightly wrap up the city. I jumped out to the first metro station. I left with furtive steps this city that had become so gloomy. Lifeless, except maybe from above this long stoned tower occupied by a lonely brown-haired lady



Artistic view of a human-on-a-chip

DOCUMENTATION