NE VOUS EN FAITES PAS, ÇA VA MAL SE PASSER

THINK BEFORE LOADING

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DON'T WORRY, IT'S NOT GOING TO GO WELL.

iZLife

Imad Assayakh, Joannès Guichon,
Pierre-Antoine Rault, Célina Treuillier

OintMind

Hee-Soo Choi, Marie Cousin,
Amandine Decker, Valentin D. Richard

Captch'You

Melike Aydınlılar, Alaaeddine Chaoub,
Kelvin Han, Florian Marchal-Bornert

State of the Art

Guillaume Coiffier, Sewade Ogun,
Leo Valque, Priyansh Trivedi

The forgotten science
La ciencia olvidada

Diego Vega, William Soto, Nicolas Leutwyler

Theseus' Wreck

Athénaïs Vaginay, Aya Yaacoub,
Philippe Flores, Aman Sinha

IZLIFE

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Without his lenses, Paul saw the city with fresh eyes. More than adjusting his eyes to the sun by removing glasses, removing the holograms wherever his gaze landed left the impression of a raw city, laid bare. The warmth of a mixed reality that was normally superimposed on his own left a cold city. The only thing that remained was an old advertising screen promoting the new iZLife feature package. This suggestion system was the very thing that made his lenses work, at least when they were activated. Virtually the whole city was using this system, yet hardly anyone paid attention to it anymore. Of course, it wasn't just the holographic ads. Its subtle presence suggested answers to our discussions, dishes adapted to different diets, movements to master a sport or manipulate a tool, even clothes to choose to encourage your boss to give you a promotion. At least, that's the selling point of this extension.

Each situation has its own extension to download - but more importantly to buy - to adapt to it better than the others. A behavioral package that recognises the situations your eyes see, and offers you the best options. Who would turn it down to instantly train for a job, or learn the history of a city by looking at its buildings? But Paul had a craving that even the lenses alone could not satisfy: a story to write. An audio storyteller, he had to tell the story of a city not teeming with optimized lives, but of a long forgotten past, or its inevitably less enlightened inhabitants. Thriller or romantic comedy, he had not decided on the genre. These types of stories belonged to the past, to the time when murders and misunderstandings were still conceivable. The lenses had predicted the best choices, and these were definitely not among them.But as imperfect as the society of the past was, it had to teach right and wrong, didn't it? His research indicated a place dedicated to this learning, made obsolete by the ubiquitous choices of the lenses. A *'school'*. But how did they learn? And was it enough to last a lifetime? Paul was puzzled. Only a visit to one of these now abandoned places would allow him to lift the veil of this mystery. That was his goal today, but fate decided otherwise.

The metro train that was supposed to take him to this "school" arrived at the station to pick him up when the unthinkable happened. A scream. A shrill sound of brakes, and fear. Someone had been pushed under the tracks, and Paul had seen it all. Maybe he was in the middle of a thriller, he thought in a burst of professionalism. But no, damn it! How could someone still kill when the choices of a lifetime all converge on a better life with iZLife? Surely the killer was one of the "sightless", those rare technophobes who lived the old way. Paul turned around, caught a glimpse of the murderer's glowing, activated lenses before taking a blow to the face. Black hole.

When he opens his eyes again, his vision once more enhanced by multiple holograms, Paul sees an unfamiliar face. The only witness to the morbid scene he had witnessed was an iZlife official who was already there to question him.

- "I'm Agatha", she says with a friendly smile. "How did you end up at the crime scene, Paul?"

More distraught than he was, his targets remained silent. Paul realized the gravity of the situation and answered alone. A challenge in this world, but it wasn't every day that one witnessed a murder. Agatha raised an eyebrow, clearly surprised.

Never in the technological world they lived in would Paul and Agatha have met. He was an audio story writer, she was an investigator trying to find out what caused such a tragedy - or so she said. Her probing questions showed that she was equipped with the sharpest of lenses, and her more than expensive conversational formulas showed that she belonged to high society.

Her questions became more personal and went beyond the crime scene.

- "Have you ever wanted to kill, Paul?"

The question caught him off guard. But more importantly, the answer made his blood run cold. Perhaps he had delved too deeply into the history of his own characters? Perhaps he was a suspect? Against all odds, Agatha smiled in response to his silence:

- "I assure you I am not the police. But you, you are not like the others."

- "What... what do you mean?"

- "Have you ever asked yourself what makes you choose? What makes you who you are? That thrill of waiting for the answer to every word?"

Agatha was not just a name, and her words were not just a vague maieutic. Behind her, she was exposing to Paul a project, a motivation that challenged the tool they had lived with for years. If she was at the heart of the development of iZlife, Agatha had the firm ambition to make this tool accessible to all, to make it fair: no more differences, free access to resources,

unified use. That was her wish. But how to allow such a revolution in a world that has become so dependent on this extension of reality?

There is only one conceivable solution: access to the data on which the suggestion system was based. Open it up to everyone, in its entirety, and make them aware of its deleterious effects as well as its proper use. But such a change was not within the reach of everyone. Agatha may have been privileged, but she was still alone. A political solution would have been possible if it were not already being achieved through optimal choices. She needed freer allies, and Paul broke the mold. All that remained was to find the black sheep. A few months later, she found Paul, and maybe others. Probably others. Paul didn't know everything about Agatha's plan. He just knew that they were probably not alone anymore.

This society that had seemed self-evident to him was now making him dizzy. It wasn't until he set foot in the data center that this feeling faded. He knew he was doing something right. Perhaps it was the culmination of so much thought that was previously unknown to him? Perhaps it was the newfound autonomy of the past months, a small victory over a system that governs us without transparency, without governance.

However, although he was committed to Agatha's side and determined to achieve his goals, Paul did not lose sight of his objective: to describe the world of the past, devoid of all technology. His reflections led him to question a number of things: How did people remember all the information they had in their daily lives? Without GPS, how did they get from point A to point B? What happened to them if they made the wrong choice? Who was in charge? Who told them what to do? All these questions were recorded in a corner of his head. Faced with the tool that allowed him and Agatha to put an end to the adventure they had undertaken months before, Paul was seized with a doubt: should he release the tool or make it disappear forever?

Two possibilities, one to put an end to iZlife and the other to make it accessible to everyone: Agatha and Paul had two scenarios in mind, both of which were the result of the same discussions and the same desires. Freedom, progress, comfort... a delightful vision of a fair life in Agatha's eyes. While Paul felt responsible for reviving a life free of computer tools, independent and more human.
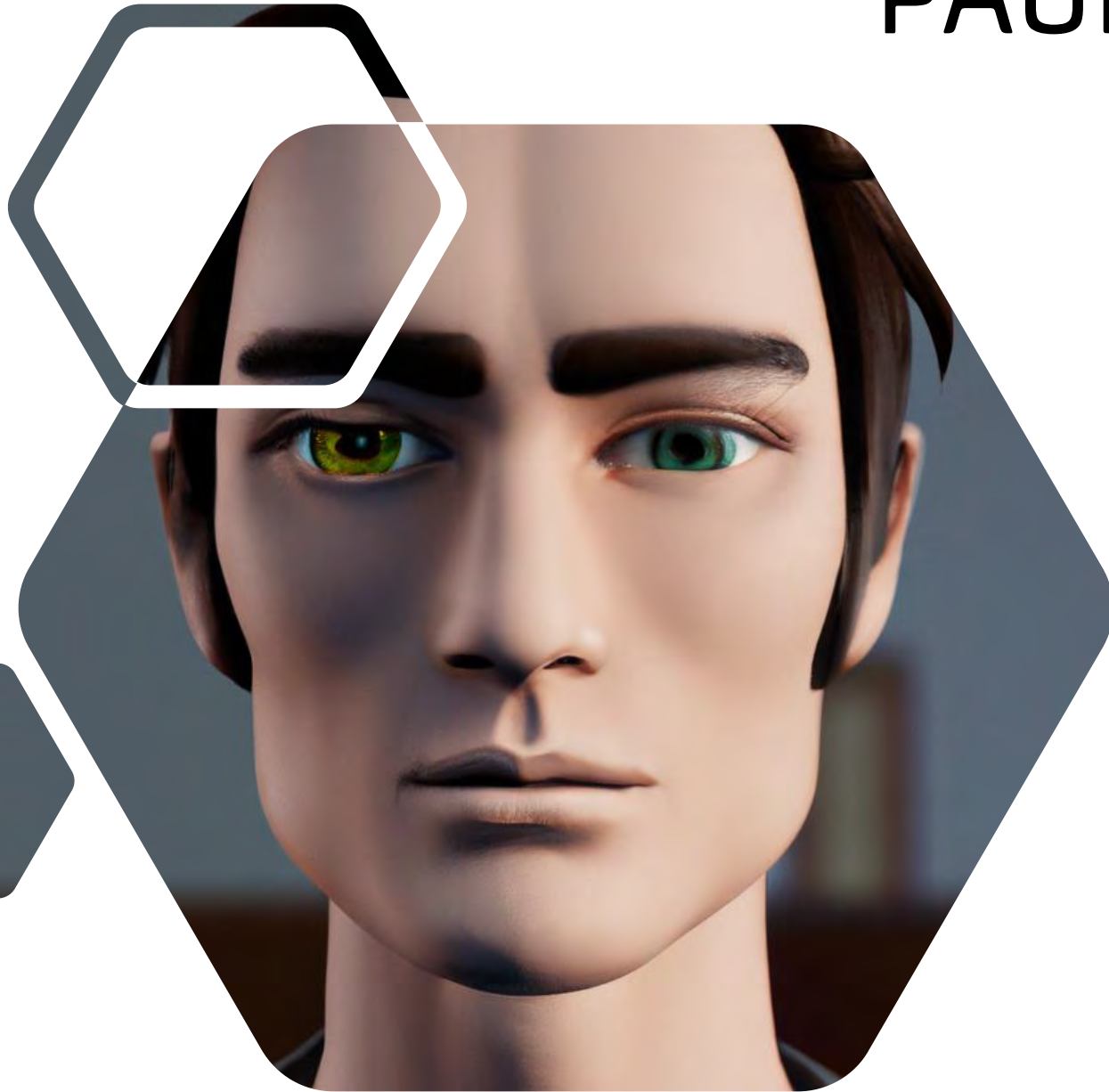
Was there even an optimal choice?

iZlife

Or how to have a fully guided life

Célina, Pierre-Antoine, Imad, Joannès

Images made using DALL-E, a Text to image AI from OpenAI

PAUL

- 23 years old
- Writer
- Daily life user of basic iZlife
- Deactivates his lenses to see the life as they did in the old World

AGATHA

- 47 years old
- Lead developer at iZlife
- User of the full option iZlife

OINTMIND

Hee-Soo Choi
Marie Cousin
Amandine Decker
Valentin D. Richard

Ethics in Computer Science :
Write your Dystopia

OintMind

Hee-Soo Choi, Marie Cousin, Amandine Decker, Valentin D. Richard

March 2, 2023

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We would also like to thank all the participants, without whom this training would not have been as nice, interesting and friendly.

To the attention of our readers

This story was co-written by the authors as part of the doctoral course "Ethics in Computer-Science: Write your dystopia", which aimed to get us to think in groups of four about themes related to ethics in research.

Any resemblance with persons, entities, or situations that exist or have existed is purely fortuitous. Moreover, the scenario described here is only the fruit of our imagination and is not intended to be prophetic in any way.

Enjoy your reading, the authors.

Sorry Yasmine
- this resemblance is not accidental
(I promise it's the only one) - and thanks :-)

The OintMind logo was designed by us. The message discussions are screenshots from the Whatsapp application (Meta), which we took care to anonymize - Yasmine (Yasminou) and Caroline are fictional characters. All the other visuals were produced with *Canva* (`https://www.canva.com`) and use royalty-free images.

Transcription of SAMx Talk Saclay, 17 October 2028, Thomas Lefort presents "OintMind, Renewing the Psychological Diagnosis"

[On the big screen, the face of a young woman in front of a doctor is displayed.]

This is Sarah. Sarah spent 5 years of her life looking for a specialist who could understand her problems. Five years trying to find out what was causing her symptoms. No one was able to guide her.

Today, this situation is over. Sarah is schizophrenic. Schizophrenia is expressed very differently among concerned people. And unfortunately, many practitioners are not able to diagnose this illness correctly. This is why we have developed an application that aims to help psychiatrists identify the warning signs of mental disorders. This application is called OintMind.

OintMind is based on the pioneering work of researcher Caroline Nasser. For more than a decade, she has been advancing knowledge about the ability to diagnose mental illness early by studying how patients talk. We worked together to develop the project and to be able to make observations directly from speech.

Today, after raising a record 45 million euros, we are proud to present our product.

[On the screen you can see several logos, including those of several insurance companies and the French government's investment label.]

The OintMind application has been tested with psychiatrists. The feedback is excellent. We were able to identify many cases that were subsequently confirmed, including that of Sarah. For the past two months, Sarah has been undergoing specialised treatment and can finally enjoy life.

Discussion between Caroline Nasser and Dr Schevrau, psychiatrist at the head of the psychiatry department at Grenoble University Hospital.
Monday 4 December 2028

he discussion takes place at the Grenoble University Hospital, in Dr Schevrau's office.

Caroline : Hello Dr. Schevrau.

Schevrau : Good morning Mrs Nasser, it's a pleasure to meet you. Please take a seat.

C : Thank you for your investment in the OintMind test. The feedback from your department will be very useful for us to see how a wider use is possible.

S : That's the point. Our department is very happy to be using OintMind. The application really helps us to speed up the detection of mental illnesses that our patients might have.

C : I'm glad to hear that.

S : However, there has been a problem recently.

C : What do you mean ?

S : As you know, the doctors in our department use this application on their work phones to record the conversations they have with individual patients. The application provides us with statistics on the appropriateness of discourse relations and on disfluencies. And these statistics can highlight and indicate one diagnosis over another.

C : Yes ?

S : Well, we have asked our interns to check some patient pathways manually, so that we can better assess whether the application is actually useful or a waste of time.

C : Yes, we've talked about this before, but what's the problem ? I was under the impression that you seemed satisfied during our call last Tuesday.

S : Yes, we're quite satisfied. It saves us a lot of time. It just seems that some of the doctors on the team have been trusting the application a bit too much, and they have been too hasty in their diagnosis.

C : Too hasty ?

S : Yes, the application gives the first statistics at the first appointment. But mental pathologies are complex, one interview is not enough. . . But some of my colleagues went for the lead given by the application without even trying to dig into the patient's background. They put too much trust in OintMind. And then, you know, with the rhythm of the days in hospital, the patients who follow one another, and the fatigue that accumulates. . . well. . . let's just say that taking the easy way out is unfortunately common. . . Do you know what I mean ?

C : Yes. . . no. . . Well, the application is not a doctor, it can't diagnose by itself. I hear what you're saying. Well, I'll see what I can do.

S : Okay, thank you very much ! And thank you for coming ! My entire team is thrilled with OintMind, and we can't wait to see what's next for this application !

C : You're welcome, thank you for your feedback. See you soon !

Thursday 7 December 2028

So tell me what you think but I feel like this is going too far with ointmind (the app for the shrinks that I told you about)

We got some feedback from some shrinks that count too much on the statistics of the app to make their diagnostic while it is just supposed to guide them a bit, so I'm afraid that it will become worse on the long run as there are not as many shrinks compared to the amount of patients

😮

I truly believe that the app can help but it shouldn't be the deciding factor for the diagnosis

I'm not sure if I'm being clear, maybe it's just my imagination

Sorry for the spam 😂

😂

I think you should talk to them, it's probably just a few of them doing that

👍

and if you discuss more with everyone who uses the app you can surely avoid problems 💁

👍

I hope so I'm just a bit afraid because I already heard that in some hospitals the dosage of medicines are assisted by the computer and there were deaths because the doctors didn't double-check

Anyway I'm going to talk about it with the team to see if they have any ideas to avoid that, maybe we can come up with a training program with the shrinks of the team to better understand the limitations of the app

👍

To all practitioners,

We are pleased to count you among our OintMind users
and we hope you are satisfied with it.

However, we would like to emphasize that OintMind remains a
diagnosis assitance tool and is not sufficent on its own. Indeed,
following feedback from colleagues, we have been warned of hasty
diagnoses based solely on the OintMind statistics.

In order to avoid any reccurrence, we ask you to attend a training
program supervised by the psychiatrists of our team who will explain
to you how to use the application but also its limitations.

[The rest of the mail deals with the training program modalities].

Kind regards,
The OintMind team.

Team meeting at OintMind.
Monday 3 September 2029, 8 :00am

Thomas arrives at 8 :06am.

Thomas : Good morning y'all. How's it going ? Well, no time to lose. We have a new season to start. Marc, do you have all the files ?

Marc (Treasurer and General Secretary) **:** Yes, everything is in order. The last service providers have just signed.

T : Nice. So. First of all, thank you to everyone for the year that has just gone by. One year after the SAM Talk, sales have exploded.

M : Yes, it was amazing. The market went through the roof for us. The media got a good hold of it. What a boon !

T : Well done to all.

M : We got good feedback from the training program with the psychiatrists.

T : Great. So, it's time to talk about the future of our business.

Caroline : Wait Thomas. Can we spend a little more time on the feedback from the psychiatrists. There were some very interesting remarks for everyone.

Thomas : We don't have much time now, Caro. But listen, you give me a report, I'll read it at the end of the week, and we'll settle it quickly.

Caroline sighs

T : Great news, we're expanding the market. We've seen the impact that our solution can have on people, how we're helping them to take control of their lives. And I really think we can go even further. That everyone can have access to this support. Some market stakeholders committed to public health contacted us. And we are proud to announce today that we will be working with them to promote the social visibility of mental disorders and their treatment.

Marc presents some slides on the economic contribution of the newly signed contracts. The last slide shows the logos of major French insurance companies. Broad applause.

C : So if I understand correctly, we signed these contracts with insurance companies. You could have told us about it first, maybe. And above all, I'm not sure I understand. Is it the practitioners affiliated with these companies who will receive the application ?

T : The idea is above all that the clients should be able to have the application directly. Democratize access to health care, and so on. . .

C : But people don't have the skills to diagnose themselves.

T : Calm down, Caro. It's up to the psychiatrists to say the last word. You have to remember that this is just the first step. Well. Look, it's already 9 :09, I have to go and deploy the application at the MNGE this lunchtime. The easiest way is for you to come to my office, say Friday. And we can talk about it over coffee. See you then.

NEWSLETTER

MNGE internal communiqué

IMPORTANT NEWS

OintMind: new diagnosis aid - 1

OINTMIND: NEW DIAGNOSTIC ASSISTANCE, NEW ERA

A message from the General Director

Dear Co-workers,

The management and I are pleased and honoured to announce that, like many of our competitors, we have chosen to use the OintMind application.

This application has already proved its worth, and the psychiatry department of the Grenoble University Hospital is full of praise for it. It is a great help in diagnosing mental pathologies. By installing it on everyone's smartphones, as the government has advised, these pathologies could be better detected. The well-being of our fellow citizens is our inspiration and motivation. That is why we are now offering OintMind to our members.

Also, if each of us installs OintMind on his or her phone, we could detect the premises and the first signs of mental pathologies. Indeed, a notification from OintMind will be enough to indicate that we are deviating from the norm, deviations that could be signs of mental illness. Thanks to this notification, years of medical wandering, superfluous expenses, and unnecessary energy spent could be avoided. This is why we are now offering OintMind to our members.

Furthermore, the general management, the directive board and myself have decided, with the agreement of our partner doctors, to allow our members to go directly to a psychiatrist after receiving this notification, without having to go through a general practitioner. Our members will be reimbursed in the same way, and this will save them time and make it easier for them to access care. This is why we are now offering OintMind to our members.

Dear Co-workers, today is a great day; OintMind is now offered free of charge to all our members. We are considering the possibility in the near future to offer reduced fees to those who have installed this application.

I thank you for your attention and would like to take this opportunity to invite you to the celebration of our partnership with OintMind, which will take place on 10 September 2029, in the reception room of the H building, at the Paris headquarters.

Please be assured of my most sincere regards,
Yours truly,

Bertrand Laforêt,
General Director of the MNGE

The health of our members and their well-being is our motivation.
This is what we want to focus on.

At the OintMind premises.
Thursday 6 September 2029

Caroline knocks on the door of Thomas's office, in the start-up's premises.

Thomas : Yes ? Come in !

Caroline opens the door and sticks her head in.

Caroline : Hi Tom, it's me.

T : Ah Caro ! What can I do for you ?

She enters the office, and looks uncomfortable, disturbed.

C : It's about OintMind and the contracts with the insurance companies.

Thomas sighs

T : What now ?

C : That's not the main purpose of the app ! I mean, it's a diagnostic aid, not a recorder chip ! I created this data processing to help doctors, to promote good diagnoses, to improve existing tools, not to spy on everyone !

T : What are you talking about ? We don't spy on anyone !

C : If people install OintMind on their phones, we violate privacy regulations.

T : But not at all ! We were very careful about that. The data is all anonymized, the recorded voice is transcribed into text and is not kept, only the text is, these transcriptions are protected, and only the psychiatrist has access to them, and the clients give their consent...There is no problem in this at all ! We all have Aleksana or Igloo homes, and everything is fine !

C : No, we don't all have that, at least I don't, and there's nothing right with these smart speakers that record you without your consent. . .

T : Yes, but they give their consent when they install the app, so there's no problem.

C : Ok...

T : Well, was that it ?

C : No, I told you, that wasn't the whole point.

T : Oh Caro, you worry too much ! Our goal is to help people get diagnosed, to allow better access to care, and to allow faster treatment. Sure it's a big change, but just imagine how many people we could help if everyone downloaded OintMind, and if we could process all that data ? It would make for much better results !

C : Sure. . .

T : *in his beard...* and much more profit !

C : What ?

T : Nothing nothing, but you don't have to worry. I'm handling it. This is a major revolution, we're going to change the world ! Your code is going to help so many people, do you realize that ? History is going to remember your name !
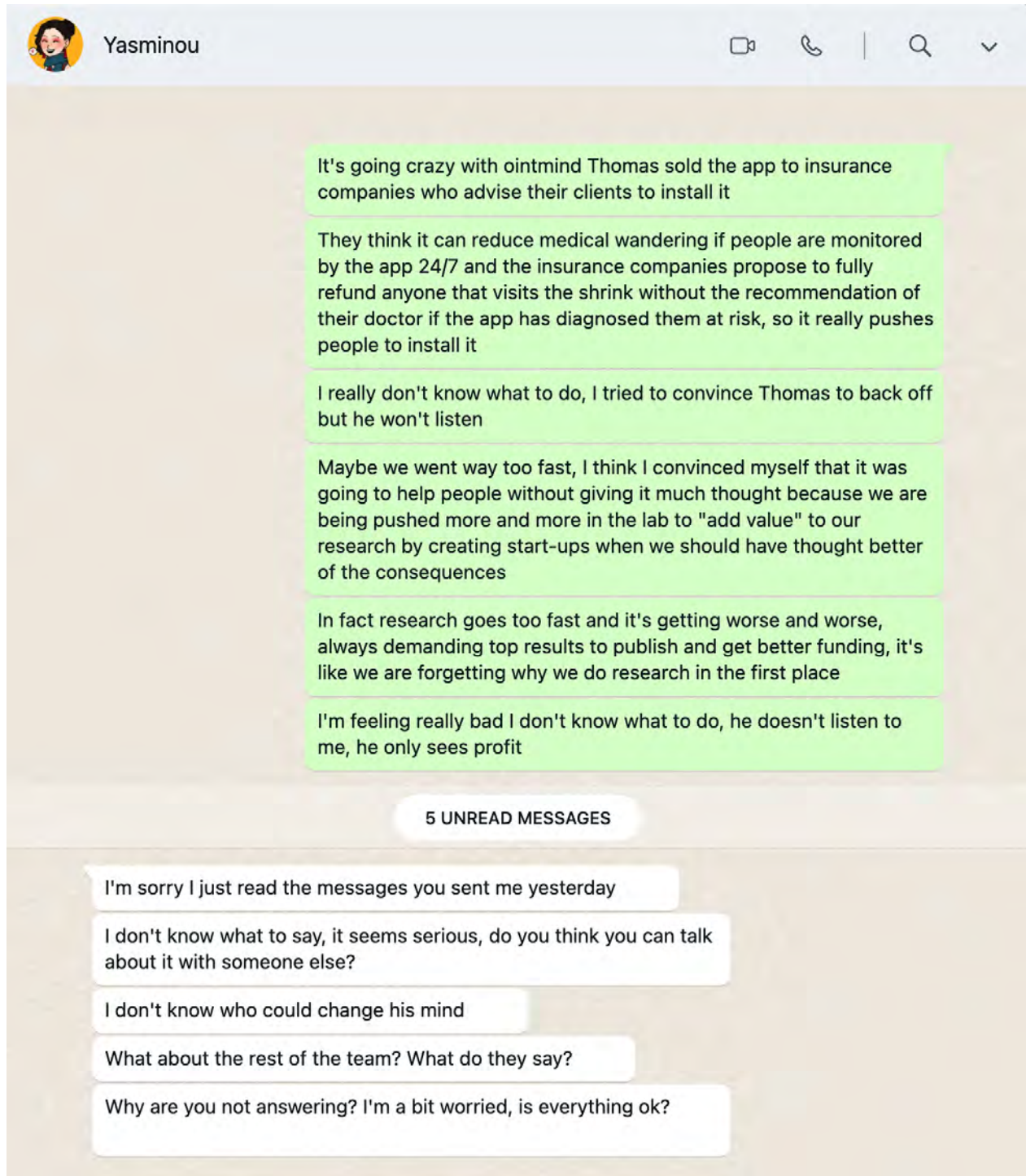
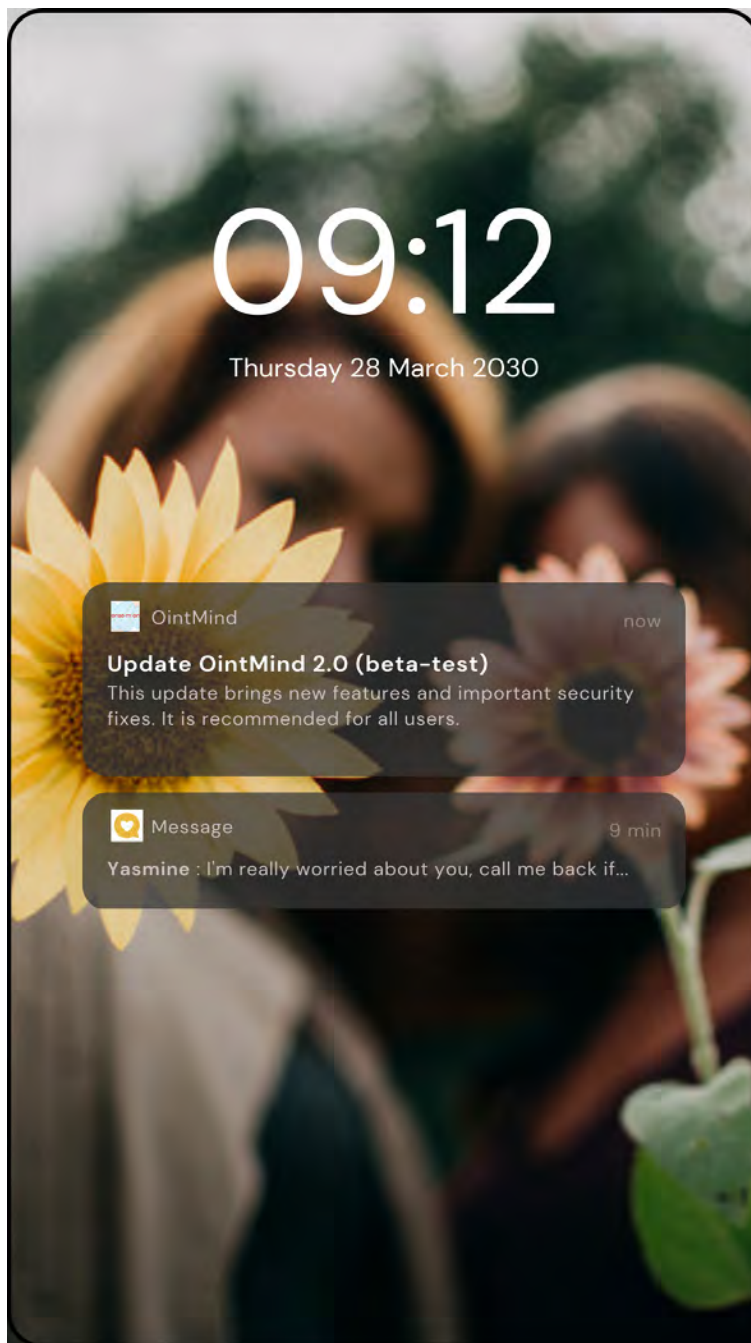**C :** Yes, maybe it's true. You're right. I'm sorry I bothered you with my stress shot.

T : Don't worry about it. I have a meeting in two minutes, though. Gotta go.

C : Fine. I'll see you later !

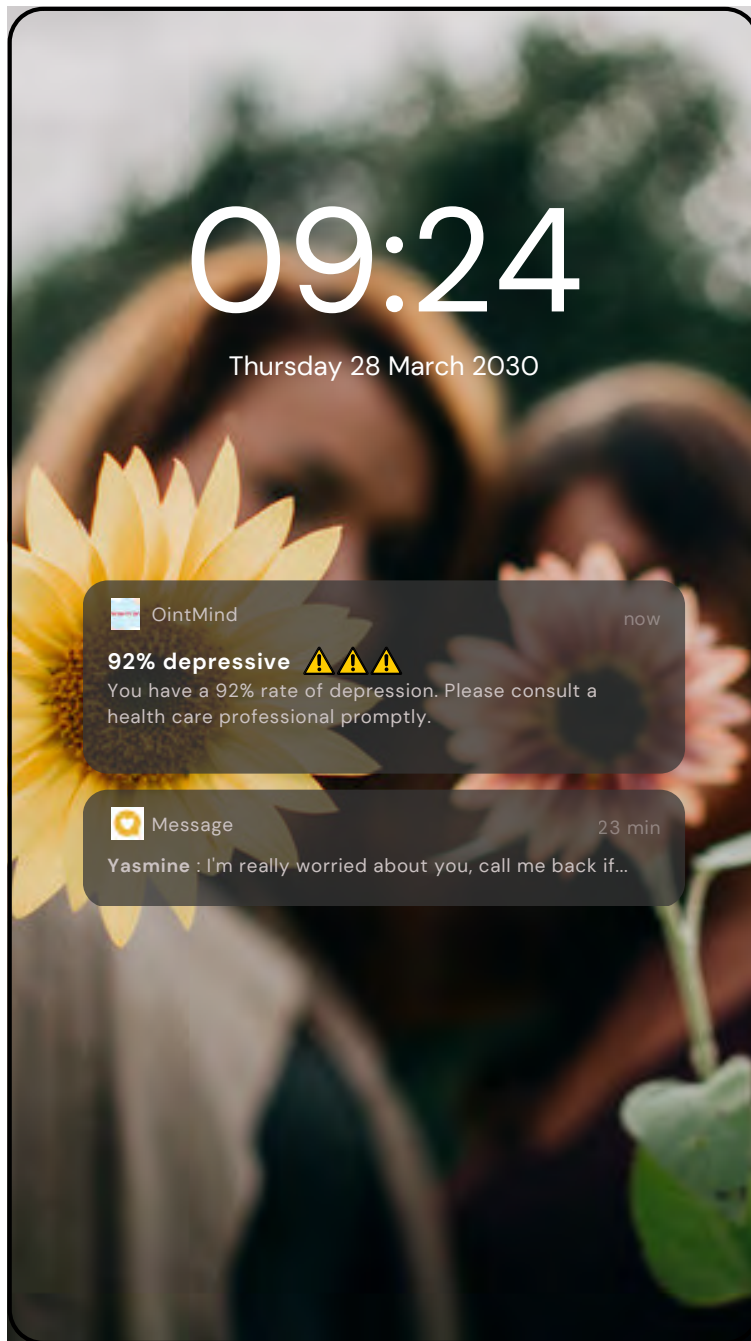*Caroline leaves the office, a little reassured.*

Tuesday 5 and Wednesday 6 March 2030

Yasminou

> It's going crazy with ointmind Thomas sold the app to insurance companies who advise their clients to install it

> They think it can reduce medical wandering if people are monitored by the app 24/7 and the insurance companies propose to fully refund anyone that visits the shrink without the recommendation of their doctor if the app has diagnosed them at risk, so it really pushes people to install it

> I really don't know what to do, I tried to convince Thomas to back off but he won't listen

> Maybe we went way too fast, I think I convinced myself that it was going to help people without giving it much thought because we are being pushed more and more in the lab to "add value" to our research by creating start-ups when we should have thought better of the consequences

> In fact research goes too fast and it's getting worse and worse, always demanding top results to publish and get better funding, it's like we are forgetting why we do research in the first place

> I'm feeling really bad I don't know what to do, he doesn't listen to me, he only sees profit

5 UNREAD MESSAGES

I'm sorry I just read the messages you sent me yesterday

I don't know what to say, it seems serious, do you think you can talk about it with someone else?

I don't know who could change his mind

What about the rest of the team? What do they say?

Why are you not answering? I'm a bit worried, is everything ok?

Caroline : But what is this again? New features?

Caroline activates the update. The application starts to calculate something, then displays a second notification.

09:24

Thursday 28 March 2030

OintMind — now

92% depressive ⚠️⚠️⚠️
You have a 92% rate of depression. Please consult a health care professional promptly.

Message — 23 min

Yasmine : I'm really worried about you, call me back if...

Caroline : This can't be true! What have they done?

Caroline tries to contact Thomas, who does not answer her numerous calls. After a while, Thomas calls her back and tells her that she is out of the project.

Transcription of the OINTMIND Press Conference, presented by **Thomas Lefort**, **3 April 2030**.

At OintMind, we care about the health of our loved ones. We've seen how the solution we offer benefits many people by helping those at risk to get early attention and appropriate treatment. We take the subject of mental health disorders very seriously and we are aware of the importance to provide everyone with equal access to care. The positive impact of OintMind has been proven many times over. And we carefully consider our responsibility to spread this knowledge.

It is with great emotion that I announce today that OintMind is renewing itself. The team has evolved to better understand the current issues. We can finally offer you a major update : OintMind 2.0. The main novelty is the addition of automatic diagnosis. The exceptional progress in artificial intelligence allows us to immediately identify all the specific language characteristics of the mental pathologies concerned. This technology will disrupt the cumbersome pattern of health administration. No more waiting months to get a place in a psychiatrist's office. Get your mental assessment now.

[*The session continues with a series of questions from journalists about the economic benefits and the company's ambition.*]

Seb
@Sb245

Damn it! My shrink doesn't want to move my appointment to earlier when I'm 96% on OintMind! #OintMind #MentalHealth #Depression

16:10 · 7/02/31

Cindy
@Bgettedu54

I installed OintMind it put me 80% bipolar!!! to all those who never believed me go fuck yourself! #Bipolar #OintMind

10:27 · 23/03/31

Alix Khammara
@KhammaKhamma

My OCD percentage goes up and down every day. I feel like I have to be careful all the time how I talk so I don't go under. #OintMind

22:13 · 14/04/31

1pour6
@jesuisunecoloc

What a bunch of crap this app is! I've had DID for 5 years, my system is host to 6 different alters, I can't tell you how lost my phone is...bipolar, schizophrenic, I've had it all! #OintMind #MentalHealth #ShittyApp

09:02 · 17/06/31

Suzanne
@Suz46

Thank goodness I installed OintMind for my mom, we were able to detect chronic anxiety in her! Everyone install this app, don't underestimate mental health!
#OintMind #MentalHealth

19:27 · 17/08/31

Pauline_S
@PaupauSrtn

Am I the only one who finds OintMind creepy? We are in full privation of individual freedom! We are listened to 24/24 and people think it's amazing!
#OintMind #CrazyPeople

17:14 · 12/09/31

VincentT
@VinceTnr

It's been 6 months that my shrink tells me that I'm "depressed" and not "depressive" while I have all the symptoms and OintMind diagnoses me as 90% depressive... #OintMind

22:53 · 29/11/31

Hichem Samati
@Hchmsmt

My mother recorded me with OintMind without telling me. She's worried because I have 15% of schizophrenia, but I'm not crazy. She's the one who's crazy!

18:49 · 14/12/31

Wednesday 21 January 2032

> I think I'm desperate, I no longer have control over this app

> I should have paid more attention, I should have known that it would end like that

> I'm a complete fool

> People go crazy on Twitter because of the app, soon they will start acting like a shrink after spending just 5 minutes on Doctissim'

We have to talk about it, there is too much hype around the app so it's hard to realize

And you shouldn't undermine yourself either, not everyone has Twitter so it's not representative I don't think all the users of the app behave like that

> Even if some of them start behaving like that it can be a problem, mental health is not a joke

> I don't know who to talk to about this, I've already discussed this with my team but they think there's nothing to be done at this point

You could talk to a journalist, I'm sure there are people who could testify

And what you told me the other day about the pressure in the world of research, you should talk about that too, so that people know how it works for real, that you are not all scientists locked up in your labs

I know some science journalists, I could give you the contact information of someone

> Maybe... I'm a bit lost at this point

These people might be able to refer you to someone who can help

OintMind, the Mental Health Scandal
By CAMILLE DEFORGE

OintMind is an application developed by the eponymous start-up, whose CEO is Thomas Lefort. This application, originally intended for psychiatrists only, was designed as an aid to the diagnosis of mental pathologies. Although it was originally only used by professionals, in October 2028 it was offered to the general public in September 2029, before offering autonomous diagnoses in April 2030. Today it is present on most of our mobile phones, collecting and processing hundreds of pieces of data daily. However, this application raises many issues, particularly ethical ones.

I was able to meet Caroline Nasser, a researcher in computer science at the University of Grenoble-Méditerranée, who developed the word processing model used at the heart of the application and who collaborated in the birth of the start-up. The researcher testifies that her goal was never to mislead patients and doctors. She looks back at the events that led to this situation and unveils the many problems with this application.

A promising start

When it was launched, OintMind was well received by psychiatrists. Dr. Schevrau, head of the psychiatry department at the Grenoble University Hospital, says that he experienced the early days of its use as a small revolution in the world of mental illness diagnosis. In the past, it was relatively difficult to get a good experience of the language characteristics observable in people suffering from schizophrenia. With the app, it suddenly became very easy to compare one patient with entire control groups. The method became more rigorous, easier to implement, and above all more accessible to practitioners.

The first feedbacks mentioned some misuses of the application: some psychiatrists relied too much on the raw comparisons, without questioning enough the potential anomalies upstream. This slight incident, although highly anticipatory of future events, was "resolved" (according to a company press release) by providing training in the interpretation of results by practitioners.

According to C. Nasser, the tipping point was the sale of OintMind to insurance companies. With hindsight, the researcher believes that this strategy, even if it opened the tool to a larger number of people, was above all a commercial strategy on the part of the start-up's management. She recalls raising the problems of private use of the application to T. Lefort, without feeling having been listened to. Unfortunately, she was dismissed from the company shortly after reporting these concerns.

After several years of having no control over the meteoric rise of OintMind in our lives, C. Nasser agrees to help us investigate the underbelly of this program that is supposed to help our mental health. The dossier sheds light on the morally dubious choices made by the leaders of OintMind and their role in the degradation of our relationship with our brain.

FAR TOO MANY MISDIAGNOSES

Firstly, biases in the comparison data lead to risks of misdiagnosis. C. Nasser's initial project was based on interviews with French patients having a mental illnesses. The algorithm is able to compare the language characteristics of these patients that differ from the characteristics of healthy people.

The problem started to arise when the start-up sought to improve the performance of its tool by accumulating more data, to apply machine learning techniques. The researcher tells us that she was aware of the initiative to go and register French-speaking patients in the Maghreb, in order to have fewer administrative restrictions on data collection. However, not all of these interviews turned out to be interviews of patients with mental illnesses. Indeed, Nasser subsequently discovered that some Algerian families were sending their homosexual sons to psychiatric hospitals, because these people "had a problem in their head", as they put it.

Following exchanges with local hospital officials, other borderline cases of this kind (dubious selection of patients, interviews carried out in haste) were also reported. The poor quality of these data inevitably leads to poor quality of potential diagnoses, as the comparison is made against misleading statistics. In addition, there is a lack of representativeness. The study only includes young men and women being between 18 and 36 years old. The results for children and people aged 40 and over are therefore very likely to be wrong.

All these reasons create cases of people being wrongly diagnosed (called false positives), like the case of John in the testimony below. Beyond the many technical problems, these people do concretely suffer from the belief that they have a mental disorder. This situation can amplify their psychological distress. With the massive diffusion of the application, we have witnessed a wave of terror, paranoia and stigmatisation around mental illness. This is the last straw for a company that was trying to help people get out of the disorder.

Testimony of Jean A., 28, diagnosed with personality disorders by OintMind in April 2030

"Like everyone else, I downloaded OintMind. . . and when they did their update, the app diagnosed me with personality disorders. So I believed it. It was a good app, everyone swore by it. Then I went to see a shrink, who looked at the tapes, gave me a "well, yeah, it's clear", wrote a prescription, and sent me home. I started the treatment, convinced that I was ill. It was a heavy treatment, I reacted very badly to it. I was tired, irritable, had mood swings. I even attempted suicide, I was really down in the dumps. My boyfriend had left me when I was diagnosed, my family abandoned me, I was isolated, and I couldn't stand the treatment. After my attempt, they took me to a psychiatric hospital. This was in December 2030. There they tried other treatments, I gained weight, they discovered other diseases - obesity, depression. But you see, since I had started the medication after the diagnosis, the data on the app was normal. So it's working, you have to keep at it. Then one day, on 13 May 2032, I had an appointment with the shrink. But this was the new one, the one who was treating me had retired, I had never seen the new one before. She looked at my entire file to see what was wrong. She went back over the dialogue recorded by the app. From the beginning. And she found it. I didn't have a personality disorder. The app had recorded my boyfriend when he was at my house and I'd left my phone in the living room while I went to the bathroom or changed rooms. It wasn't a personality disorder. It was two people. My boyfriend and me. Of course, when he left me - when I started treatment - it got better. . . I lost 2 years of my life, my boyfriend, my job, my family, my appearance, my self-confidence. This application

destroyed me, destroyed my life."

AN ETHICALLY QUESTIONABLE APPLICATION

From the point of view of the mobile application itself, other concerns have emerged. OintMind uses the data it records from your phone. A reading of the terms of use tells us that this data (converted into text) is owned by the company. They use it to populate the comparison corpus and train their diagnostic model. In other words, your conversations end up on the servers of OintMind. In addition to the risk of dissemination of this personal information in the event of hacking, this means that employees can have access to your exchanges. Even if the conversations are anonymised, it has been shown that long extracts of dialogue are often able to betray, in one way or another, the identity of the interlocutors. There is therefore a real circumvention of current data protection policies.

We managed to anonymously interview a person linked to the start-up on these issues. We will call him Yann. Yann confirmed that the security of users' personal data was of little concern to the management. He also revealed that the application had the ability to continue recording on the microphone while running in background. This app is now installed by default on Piear, Oua-weille and Igloo phones since last year. It therefore has access to a considerable amount of recordings without users being aware of it.

Alas, the issues of lack of consent and privacy mask another, more thorny issue. Too often, companies are encouraged to innovate and come up with technological solutions to try to bypass traditional systems. In the case of mental health, the fundamental question arises: is it really a good idea to let an algorithm decide our diagnosis? According to C. Nasser, the answer is always "No". A program can never replace a psychiatrist, and this kind of judgment must remain a human mediation.

WHO TO BLAME?

Some consumer associations have already warned of the dangers of OintMind, of the need to take a step back from its diagnoses. Legal proceedings against OintMind and Thomas Lefort are currently underway. The research team behind the project has also been challenged.

However, not all problems with the application can be attributed solely to the researchers who enabled its initial development. C. Nasser explains that the academic world still suffers too much from a certain precariousness regarding its independence and disinterest. In particular, the increased competition for funding can lead teams to choose research topics without really thinking about who will benefit from the results. The researcher is aware of the integrity and ethical mistakes that are still often swept under the carpet, some of which she admits to having made herself. She calls for more consideration to be given to "ethics by design" practices.

Today, it is difficult to assess the extent of the damage caused by OintMind. We invite all people who suffered from inappropriate treatment as a result of a misdiagnosis of this application to contact us.

15:27

Wednesday 7 July 2032

Headlines   "OintMind"

THEUNIVERSE.COM   today
OintMind: A revolutionary app...or a disaster?

MFB.TV   a week ago
The hidden side of OintMind: victims testify

DNEWS.FR   2 weeks ago
OintMind: an application that saves lives, our
guests testify.

CHALLENGES.COM   3 weeks ago
OintMind investors are pulling out: the end of
the heyday?

LARESONANCE.COM   a month ago
Camille Deforge, a famous journalist who
regularly makes the buzz, writes a disturbing
article on OintMind. What is it really about?

NationalTV

Tonight on Particular Correspondent, Julie:
"Everything changed thanks to OintMind, I could
finally live."

Wednesday 7 July 2032

Proceedings of the 2033 FAkkT Conference Best Paper Award

Given to: Caroline Nasser[a]

"We Need Trained People, not New Technologies: on the Many Risks of Self-Diagnosis"

[a] Department of Informatics, University of Grenoble-Méditerranée, France

Email: Carolie.Nasser@grenoble-mediterranee.fr

A wide variety of self-diagnosis applications based on machine learning (ML) has flourished in the past decade. Many reports put an emphasis on the various economical and social positive impacts of such applications. Unfortunately, little attention has been given to the studies exhibiting negative impacts of these technologies. In this meta-analysis, we gather the results of 73 articles reviewing self-diagnosis smartphone applications based on ML. The outcomes of these studies clearly show that, in spite of the remarkable efficiency of these programs, many issues are not being addressed. The non-expertise of people is the major source of misinterpretations, sometimes leading to severe health consequences due to unsuitable medication. Ethical concerns are also too rarely tackled, especially regarding the social status given to diagnosed people. Finally, we discuss potential solutions to put humans back into the diagnosis health system.

CAPTCH'YOU

Melike Aydınlılar
Alaaeddine Chaoub
Kelvin Han
Florian Marchal-Bornert

Ethics in Computer Science:

Write your Dystopia

15 November 2022

Captch'you

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Chapter 1

It's 7am and Laura wakes up. After her morning routine, and while having her breakfast, she opens Captch'you™ -- the citizen's app -- to check what the other members of her committee decided overnight. Like everyone, she helps to keep the city's society thriving by judging whether the activities of others are acceptable or not.

Laura cannot actually see the daily lives of others, but every adult in the city is part of a system that surveys and monitors the city itself. Twice a day, the system assigns committees a set of short video clips, with potentially problematic behavior detected that day for them to classify. This is part of life in the city: everyone has a moral obligation to review and assess the clips their committee gets each day.

After fulfilling her basic needs and moral duty for the day, Laura leaves for work. While waiting downstairs for the pod to the bus station, she remembers…

The light-switch! It's still on.

Afraid of the warning that the system will generate -- for wasting energy -- and that it will flag her action (or inaction) for committee judgement, she runs back to the apartment and switches off the lights.

Thank goodness!

It is 8.30am and Laura arrives at work. Her job is special -- as a moderator within the system, she is responsible for making the final decision on Captch'you™ cases that have been judged by the committees as reflecting inadequate social behavior. Because of that, she is granted access to more than just the short clip that others receive on the citizen's app, and she can recover fuller clips and personnel dossiers for each case if she wishes to.

While going through her pile of cases for the morning, Laura receives one where she has to decide whether a woman can keep her child or not. There have been nine other committee decisions so far against the woman's behavior towards her child. In the clip sent for classification this time, she can see the mother yelling at the child. So, she will support their decision, and approve the outcome produced by the system -- the child should be taken away to a more caring family.

Ten times… It was not that hard to decide, this one.

Laura pauses for a moment though. She can see that this mother really looks like her. Maybe it is the woman's hair or maybe it is her age, but something causes Laura to relate to the woman. However, carried away by other cases waiting, and thoughts about the dinner she planned with her parents later that night, she does not spend time thinking further and taps on the 'Bad' button on the screen.

After working her day as a community servant, Laura heads back to her apartment to start preparing dinner.

The doorbell rings. Anxiety suddenly jolts Laura.

Is everything ready? The carrots are in the stew. The sauce is not too hot this time. The dining room is clean. A few seconds of waiting before answering is usually judged normal by the system, but I mustn't panic and jump to the door, otherwise the system could…

Her parents enter the apartment together as they usually do. Her mother hugs her, her father kisses her cheek and all three gather around the dining table. Laura starts serving dinner. As she settles into her seat, her mother looks at her hair with a forced smile. Then it comes:

- You didn't take time to be pretty, right?

Despite knowing well that this could happen, Laura still feels attacked. A stab in the back precisely. She breathes deeply to calm herself down.

No retorts, I must behave like a good citizen.

She let the remark slide and leaves the kitchen. She takes the time to fix her hair, but what her mother said about it reminded her of the woman from the morning.

Am I that unkempt? Was the woman that unkempt after all?

When she comes back she offers wine to her parents and sits down to finish her cold course. After dessert, she makes tea for everyone, and they start to talk about little things. Then the woman comes back to her mind.

- You know, this morning I had to judge a woman. The crowd stated that she made a lot of tiny little mistakes. I'm sure the system is right, but I felt like I was missing something? I don't feel good about it.

Her father simply nods.

- You did what you had to do.

- Yes, but she kinda looked like me. It could happen to me one day, you know.

Her mother frowns.

- No. You're stronger than that.

Laura shifts uncomfortably.

- They will take her child off her you know.

Sadness falls on her parents faces. A silence, probably only two seconds from being detected by the system as being too long, hangs over the air. Dad starts to say something, but her mother hit him in the side with her elbow. Mother answers sharply.

- Still, you did the right thing. You did your job. Be proud of it.

The conversation continues onto more "harmless" subjects like Laura's single status, the weather and her parents' preoccupations. The night could have just ended that way -- after all her parents acted normally when they said goodbye to her. But after the door shuts, she watches them from the window of the apartment.

Occupational hazard of mine, I can't stop monitoring…

Down there, near the building entrance, they seem to be arguing loudly.

Are those tears on mother's cheeks?

Laura flees this vision, baffled. She finds herself having to make more effort than usual to end her day like a good citizen. The memory of the woman constantly comes back in her head.

Who is she? Do my parents know her in some way? Why does she resemble me in some ways? If it is the case, how?

Not knowing it then, but what Laura understood as reality slowly unravels from this point.

Chapter 2

The next day, she goes to work still thinking about the dinner with her parents. The woman from yesterday is still bothering her. After taking her coffee, carefully without making a mess in the break room, Laura sits at her desk, and starts her day.

Some litterers. Nothing new. Some traffic rule violations too.

She is relieved that at least there is not much violence on her screens this morning.

At noon, she grabs a sandwich, and somehow, she finds herself going back to the clip from yesterday. She opens the case dossier and gets the nine earlier clips against the woman together with their extended versions too.

Here we go.

She wants to explore her bad feeling around this case.

She tries to watch a little bit more around the timestamp of yesterday's "incident" clip. She starts with the yelling scene.

Classic.

She has seen thousands of parents losing their self-control before.

There should be mandatory anger management classes for everyone. At least there is no hitting in this clip.

This time however, she notices some concern in the facial expression of the woman. Rewind, rewind, play. It is a kitchen scene, there is a hot pot on the stove, the handle is turned outwards.

How careless!

The toddler starts reaching towards the handle. Fast-forwards 15 seconds: The mother yells to stop him in time.

Another clip. The toddler is crying in a playpen, yet the woman is moving out of the frame.

Doesn't she know that this is not good for child development?

Fast-forwards 10 seconds: The mother is back soothing the child. It's a lovely scene, the mother brought the small toy elephant that appears to have been pushed out of the playing area back to the child.

The feeling sinks in Laura's stomach, making her more uneasy.

Why were these clips flagged in the first place?

She goes over the other clips nervously. It is almost at the end of her lunch hour. She is not supposed to spend this much time on one single case, and she will have other cases to evaluate.

It never ends.

Rewind. Fast-forward. Over and over again.

It looks like all the woman's cases have some benevolent explanation. There has to be something she is missing. Laura checks the background, the living room, kitchen, but there is no sign of mold on the ceilings.

Maybe lead paint?

No, the house looks new enough. There is also a healthy number of children's books on the bookcase. There are even child-locks on the drawers.

What is it that the system keeps flagging this case?

She returns to her duty after lunch, works hard and tries to keep the case out of her mind.

Finally, it is 6pm and time to go home. Her fellow community servants are leaving one by one. She thinks to pack up, and maybe take the case to her supervisors later. But she ends up glued to her desk, trying to find something in the clips. She checks the picture frames on the walls and dressers in the woman's home.

She finds a young man in most of the pictures.

Funny, I've not seen him in any of these ten case clips so far.

Then she realizes the first clip surprisingly started only a few months ago.

Usually the problematic cases are spread over longer periods, starting with small aggressions and petty crimes. She watches the earliest video. This one shows the mother crying with the child on her lap.

Is it emotional disregulation?

Rewind, rewind. There are more people in the apartment.

Can it be? ... Oh my God! She lost her partner around the time the clips had started to pop up in the system.

Laura has to leave. Staying too late could flag her. She goes home with a thousand thoughts in her mind.

Could the system be penalizing her just for that? Is this case an anomaly? How many decisions have I made with clips that are similar to this case?

She spends the next weeks scrutinizing every single clip she encounters in her caseload, every now and then she starts getting the same uneasy feeling.

Something is just not right.

Chapter 3

It is two months from the day she validated the decision to remove the woman's child. Laura cannot stop thinking of the sorrow the woman must be going through, and the distress the toddler must be in, to be in a strange home without his mother.

Laura goes into the office determined to act.

She has realized that the city system is not being used to help citizens judge their fellow citizens' actions. All the outcomes produced by Captch'you™, including taking children away, have already been determined by its automated forecasting model beforehand.

She investigated. The clips that are flagged for committees to review are only for show, the prediction model has been trained to suggest cuts to the video footage so the clip shown to the committee will bring about the outcome the model has already decided.

In another cruel twist, it turns out also that the system itself is actually judging everyone based on the ratings they are giving. Nothing Laura or her fellow citizens thought they were doing actually made a difference. Worst yet they were, and they still are, feeding data back to the model to rate themselves.

She logs into the system. She knows that she must do something. A large pile of new moderation decisions is awaiting her today. She starts feeling sick in the stomach again.

How many parents are going to face the consequence of a decision today that will drastically change their lives? Will there be a single parent going to spend a sleepless night…? Their child in someone's home just because a pot on the stove and their child was unattended together in the kitchen for five seconds, or did not reach out to soothe their child within ten seconds?

The idea for a small act of rebellion swelled from within her. She begins clicking 'Good' on the first case decision without checking. She starts to feel a little better.

Then she does it again, and again, on every single decision that she has to make. A feeling of satisfaction fills her, but it does not feel enough.

The next thing she does will change everything though.

Epilogue

Laura steps out of City Hall. A police car is already waiting for her on the plaza. She is handcuffed and shoved into the back seat. The officers say nothing and only give her a dirty look. It is enough to let her know how they feel about what she did.

This time, fear suddenly jolts her. She worries about what will come next, she has seen terrible things happen for lesser "crimes" against the system, let alone something committed by a person of her position. The threat to the system is great, the authorities have to act quickly and brutally so the system is not destabilized.

It is going to be a sleepless night for her, or worse. But she also strangely feels a sense of peace and calm for believing that she did the right thing.

As the autopilot on the police car kicks in and they are driven onto the highway out of the city, one of the officers instinctively pulls up Captch'you™ and was about to start rating people on the screen, however, all the panels are only showing a single clip of a masked figure saying: *"Wake up, the AI fools you"*. The clip is short and goes on repeat just like the usual ones, but this time it ends with something more before repeating: a URL button flashes on the screen.

Laura did it.

Her bomb dropped where it was meant to – all the case files and extended clips for the millions of committee judgements that were made over the last two years are at that URL, starting with the ones involving child protection rehoming.

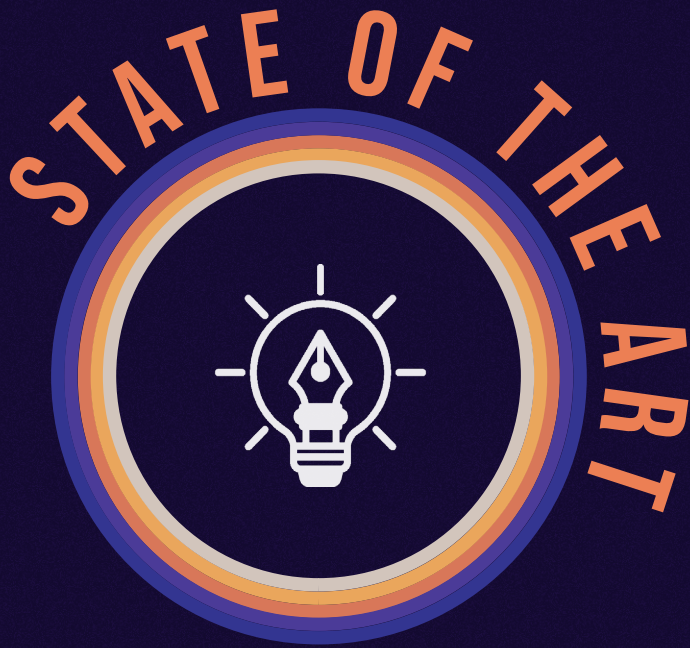*It was not that hard to decide, this one.*

A smile forms on Laura's face, but she pauses mid-smile.

What if everyone else thought the same as the police officers?

At least Dad might say: "You did what you had to do.", but a video from the morning's pile still bugs her.

Did the father who fed his son expired apple sauce really not know he was doing that, or is he really a negligent father?

………

STATE OF THE ART

Guillaume Coiffier
Sewade Ogun
Leo Valque
Priyansh Trivedi

State of the Art

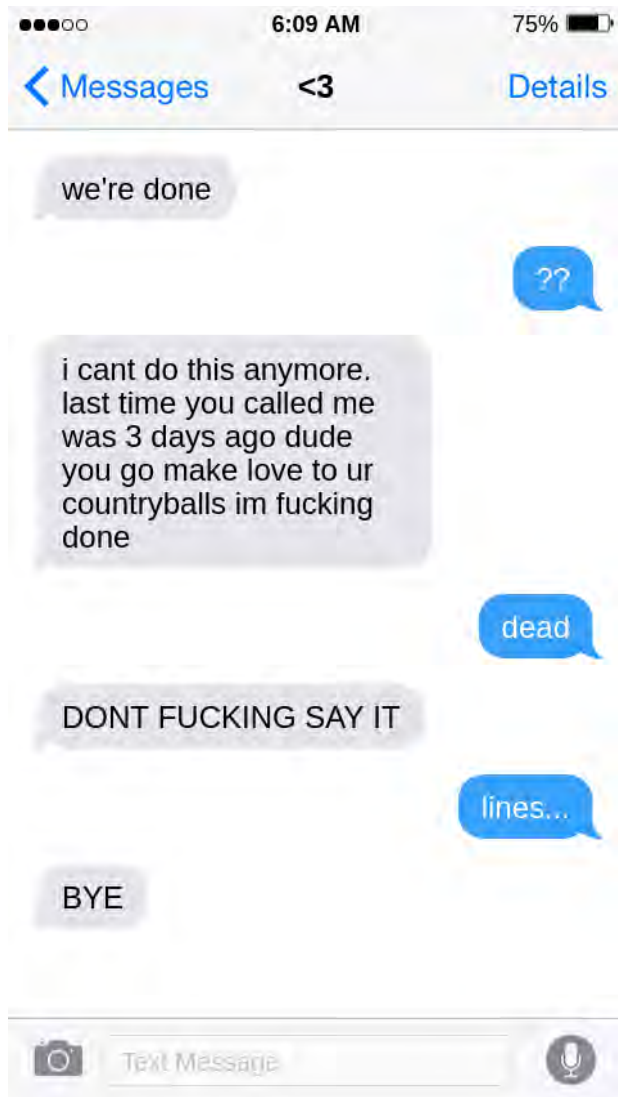**By the ladybug team**: Guillaume Coiffier, Sewade Ogun, Leo Valque, and Priyansh Trivedi

October 17th, 2022

Cold sweat. The smell of stale bedsheets. Hints of the sun blazing in all its glory filtering through the IKEA curtains. It's a Saturday today, right? Maybe. The days blend into each other, nothing to tell them apart. Sigh. "I need coffee." I speak to myself sometimes. The voice, so alien, I barely know it. Anyway. Groggily, I pull myself out of my bed and make my way to the computer. Bright blue lights, my window to the world that matters. Too bright, this morning. I take a deep breath and dive in. Another day, another email. "SpuriousDrumming: Yann, I need a new scene. Last minute. Sorry''. I sigh. Again?

```
> Heyy so Matt (the editor) trashed the part where we go through
stages of the moon. Demographics and whatnot idk. He's trying to
get a Kia sponsorship so instead we're going to compare the 12
signs to car colors. I've attached the cars, the palettes and the
updated script. Do your thing. PSPS: We're posting on 12KST so I
need you to be done by 4pm @today!
```

I twist and look over my shoulder to the coffee machine. "Damn, I need a shower". I sound even more raspy than before. I need coffee too. I need a break, maybe. Most of all, I need the cash. And SpuriousDrumming needs a new goddamn scene in four hours. I stretch my back and pull out my iPad. Two hours later, I surface back up smelling like yesterday's manure, red eyed probably (I forgot to pull the curtains up, trying to work in the dark for two straight hours). Current state be damned, the scene does look nice.

I transitioned to pseudo geometrical countryballs almost two years ago. Checkerboard patterns as shadows, chevroned eyebrows and glossy gradients. It was rather original, I think. It's funny to boil down my style to these keywords though. Can someone define my motifs this easily? Be a shame if I did. Any child could fiddle around in procreate to tick these checkboxes but I really do put my soul into it. These expressions, I dare not put into words. How do you manage to anthropomorphise cars and star signs anyway. Speaking of, what the fuck am I doing? Three years of art school and crippling debt to draw the libra make lewd gestures at a yellow civic. And they say that art is dead. Well, I suppose it is. We were supposed to usher in the democratization of art with the apples and the microsofts of our time. We end up subliminally hinting to marketing departments we're thirsty for a sponsorship by dripping drivel over droves of damned dummies. Hehe. Anyway, then this happens:.

> ...6:09 AM   75% ■
> ‹ Messages   <3   Details
>
> we're done
>
> ??
>
> i cant do this anymore. last time you called me was 3 days ago dude you go make love to ur countryballs im fucking done
>
> dead
>
> DONT FUCKING SAY IT
>
> lines...
>
> BYE
>
> Text Message

You know the feeling when you're about to pull that block from the jenga towers that you know will make the entire thing fall but you don't care anymore and pull at it anyway? I didn't even bother calling her this time. I can't do this anymore, either.

I package the scene for the umpteenth time and ... I surprise myself. I've never told SpuriousDrumming off. And I've never ... asked for a week off. I need it though.

October 24th, 2022

I hope none of you are ever in a position where seven days of lying on the bed feels like the solution to all your problems. Modern day escapism do be like that though, so... Anyway, I press the familiar buttons and see this petty beast of mine power on back to life. No new emails. Whoever's heard of that. Wait no there's something just in. Time to draw again, I guess.

> JIM: Nice work on the pyramids bro; [link]

Pyramids? I drew cars and stars signs for the last video. Jim should move out of Colorado. Weed is just too cheap there. Might as well see what video he linked. After the two (or was it three) mandatory ads to buy myself some motivation, or play the new game only IQ > 200 people can play, I find myself on SpuriousDrumming's page. Heckles rising I see the published date: 16 hours ago. What the fuck?

I pull the screen closer, run my hands through my scalp. I've never seen him talk about this topic. I've certainly never made any illustrations on pyramids and the like.

I go through the first minute. It looks similar to his intro. His face is on it, and it is him alright. Did he get another illustrator? I hope not. We've been working together for many months now. I stopped freelancing because of him. Sure he's demanding, and inconsiderate, but I prefer the steady income. But wait, no! It... looks very similar to the stuff I do. The textures match up, the background contoured just so. Perspectives line up, as always. The expressions, they're so lifelike. But I've never drawn this. Nothing close to it! Confused, I press ahead. The words, in his grating melodramatic voice, wash over me. The video is typical SpuriousDrumming content. The art is ... typical Yann content. And yet, I'm watching it for the first time.

I hover on the comment button. 10,000 comments already in 5 hours. This is unusual. His previous videos always have about 1k comments in all. I clicked the button, and read the top comments. Adrian, an avid follower, said "I really <3 your illustrations of the sphinx." Marth agrees with Adrian, "Wow, this story shows the reality of things. The colors make it even more interesting. Keep this up!!!". Jenn223 eloquently writes "First".

I begin to wonder. Did the new guy DRAW LIKE ME? Should I be worried that he's swapping me out for another, or that, there's someone else masterfully copying me now? I remember that, during our talk last month, he complained about my turnaround time. He'd like to scale up, he said, even though he likes my style and will like to stick to it. I assured him I will do my best to deliver on time but I'm only human.

I skip to the video's end, trying to find the illustrator's name. We need to talk. He needs to stop using my style at the least. Credits start rolling... And... nothing. No illustrator? That's just not cool, SpuriousDrumming. The new guy, thief or not, still needs some recognition.

Trying to get a handle on things, I type out an email demanding some of these answers. Why did he not inform me? Is our collaboration over? Who is the new guy?

October 25th, 2022

Zwoop. I break from my reverie of watching unending streams of unnecessarily skilled player playing some game and look at the notification.

> SpuriousDrumming: RE: WTF?

Dude, I'm sorry you were awol and i need to scale up. I don't think we'll be working together anymore. I like your work, you're very talented, and deliver consistently, but my man, I dont think I can pay

you. My patron list is decreasing and adsense barely keeps the lights
on, sorry. And no, there's no new "guy" haha. I got an AI finetuned on
your work. You should check it out, its super cool.

> Yann: Re. RE: WTF?

An AI? Finetuned?

> Matt: Re: FWD: Re: RE: WTF?

Hi, this is Matt here, covering for SpuriousDrumming. Let me try and
give you a rough idea of what's up. So, to start off, no we did not
hire some human to draw the same as you. But you know that computers
can generate images right? I mean generate! Not photoshop. Thanks to
some very intelligent folks doing a lot of math. I'm not sure it helps
but this is how it works, briefly. There are two aspects: a
transformer, and a diffusion model.

We send a bunch of words as commands to a computer. For example,
"sphinx on a bright day, drawn in the style of Yann". These words
create a pattern of importance that dictates how much each word's
"description" and "meaning" flows into each other. Through a big heap,
like one hundred billion additions and multiplications, a few seconds
of computation time for an average modern computer, we manage to
transform these words into a set of numbers, ending up finally as an
amorphous blob representing all this sentence is worth, based on a
background knowledge gained from going through billions of words,
hundreds of times. Next comes the tricky part (no kidding ;)). This
blob is meaningless to us humans. People claim to have ways to
understand what's going on, but really, they're kidding themselves.

Anyway, I want you to think about entropy now. The fundamental nature
of our universe, the matter in which arranged structures of molecules
may diffuse into nothing but white noise, through nothing but sheer
randomness. This process can't be reversed. But if you simulate it,
you can reverse it. And reverse it, we do. But not randomly. The
system breaks down billions and billions of images (SPECIALLY, YOURS)
to noise through "guided randomness". And then, when needed, we
reverse this process. We start out with our amorphous blob, and go
through this reverse process, reverse-randomly transforming it to a
coherent image. Do this a couple times and you end up with the sphinx
you saw in the video. Hope this helps.

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Best of luck in your career.
Matt.
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Best of luck to your stinky neck you hairy baboon. You can't just dangle some math mumbo jumbo in front of me and make me believe we can replicate me. And yet, the video stands. I believe SpuriousDrumming when he says no human did this. I dont think someone can copy me so perfectly. Not a hint of others' influence here. I.. I am at a loss for words. Effectively, SpuriousDrumming can do what I do.

Well, too bad for him. I'll go work for someone else. I am going back to freelancing. Maybe you can make your computer draw a sphinx on a sunny day, but I'd like to see it try to illustrate the esoteric, to imbue the countryballs with life like I do.

October 27th, 2022

Two days since I jumped back to the dog-eat-dog world of Fiverr. Two days, and I have nothing to show for it. It's uncanny how there are more people here than before. Freelancing stuff like this is always a way to kickstart your career. Ending up here two years after you took off is a sign that things went bad for you. And I guess they did. Not out of my own accord. What do you call it when "a big heap of numbers" fills in for you, again?

I click through the jobs there and something catches my eye. This one is offered to an artist whose profile picture is uncannily similar to my stuff. Click, I jump to their public profile. The stuff is so similar to mine. It's as if they come directly from my notebook. I check it just to be sure I am not hallucinating, but I did none of them despite the striking resemblance. Then, I see it's name : CreAItive.

CreAItive. An AI. I'm sure it's the same fucking thing Matt/SD used to replace me in their videos. It has to be! My nerves on the verge of popping, I scroll through the page. Design after design, some really good stuff, some original ideas too but all in my motifs. They make a computer do what I do for them and are now FOR EVERYONE, FOR MONEY? Where does this end? This is unfair. A theft! An insult!

Suffocated, I switched over to the bright blue bird always open, my finger on the pulse of the world. I'm not entirely sure what I wrote but the last tweet in the thread read something like:

> so you steal my images and learn to copy them as you like? No one asked me. I don't have the program. I have no control over it. And I don't know what to do. FML.

In a few hours my phone started lighting up with replies. Never a good idea, but I need that dopamine hit.

"This is outrageous!!! You have my full support in this. People like you deserve better !" - UpperDupper96

"I didn't even notice the difference between you and the AI. If it can do your job faster and cheaper, why continue bother ?" - KarenFreeStyle

"Yeah, it sucks but its the future." - JoshNonstop

"You call the algorithm mimicking your work a scam. Yet you also took inspiration of other artists to come up with it. So can you truly say that this style belongs to you ?" - Wolks

"Now everyone is Yann! Countryballs for all" - FairBryan77

"But then no one is Yann lol x)" - TimOfUtah

I sigh. Ain't that the truth. The like button plays a nice animation, counter to my current mood.

"Get in touch with a lawyer" - PhobicLion

Hmm.

October 28th, 2022

The phone rings three times before anyone bothers to pick it up. All the time in the world for my heart rate to skyrocket.
"Good morning, Mr Daniel here, copyright lawyer. What can I do for you ?", says the voice on the other side.
I take a deep breath and introduce myself. I try to make the best impression despite the shaking voice and sweaty hands.
"... and I need your help because this content creator, SpuriousDrumming, replaced me by an AI."

A few seconds of silence. I am holding my breath.
– How long have you been working for him ?
– About two years.
– Did you agree on a contract ?
– I was doing illustrations on the themes he was developing in these videos. Each commission was a contract on its own. They get the right to use my drawings for any use provided they cite me as the author of the drawing.
– And were there any occasions on which this agreement was broken ?
– Well, no, but I never gave my agreement for my work to be used to create an AI !
– I suppose nothing of this kind was specified in the contract, so it's not an issue *a priori*. Moreover, what is produced by this… 'AI', are completely new images, am I correct ?
– Yes, technically.
– Technically, but you are not in possession of exactly the same pictures, are you ?
– That's true, but still ! It is copying my style !
– Sir, I am truly sorry but we cannot copyright a style. How would you even define what a style is, legally speaking ?"
Fair point. He continues without letting me speak:
"In the end, this notion of style has no legal value. As far as I am aware, there is no patent nor trademark nor anything else that protects a 'style'. What is protected are, for instance: a name, a character, a car, a logo, etc. something specific. Anything close to this list will be helpful.
– The shadows and contours have a rather specific shape…
– I am afraid it is not much. We won't be able to argue in court with that.
– But there must be a way to do something !
– As of today, I am afraid there isn't. There is a real legal vacuum around these issues. I can only advise you to avoid your illustrations to be obtained by anyone.
– But that is not how it works.
– I know, and I am truly sorry, but there is nothing I can do for you."
My shoulders sink, my throat hurts. I try my best to hold back any tear.
"Thank you for your help anyway." I say before hanging up and throwing the phone onto the bed.

I tried to phone three lawyers in the days following, only to receive the same answers and the same justifications. It feels like I am talking to a wall. A tall, sturdy brick wall that does not want to listen, that does not want to fix the injustice that is happening to me. It is as if the institution had identified the problem, but for now, no legal solution was proposed. I remain alone in this. No job, no money, even the art that once defined me don't belong to me anymore.

So here I am. There is nothing I can do. Only a few people support me over the internet. The vast majority does not care. SpuriousDrumming does not care. Her videos will continue to air, to collect views, likes, fame and money, and people will be happy about it.

No one seems to be able to help me. No one wants, no one can, and no one probably will. I am alone. And I am lost.

November 4th, 2022

Cold sweat. The smell of stale bedsheets. Hints of the sun blazing in all its glory filtering through the IKEA curtains. It's Friday today, right? Maybe. The days blend into each other, nothing to tell them apart. Sigh. "I need a beer." I speak to myself sometimes. The voice, so alien, I barely know it. Anyway.

A couple of days have passed. I haven't a penny to my name since the last video about cars and star signs. Can't help but laugh at the irony. I started out scribbling Ford GT's in the back of my school notebooks, and I did the same in my last video. I call it my last video because I don't think there's anymore to this story now. That's all she wrote.

Kicked to the curb, with my bottom still red with hurt, I finally ask myself the stuff I've largely put off for the past few months. What am I? What defines me? My art, I should think. And the way in which mine is different from yours. I talk about my motifs sometimes, when the drink gets hold of me. And I equate my identity and my style. "Illustrated by Yann". For two years, I saw this play out at the end of countless videos, seen by countless people and commented upon by countless, again. And each time I grew sure of myself. Like Ned Flanders, the more of the same I made, the more of the same I became. And now, the more of the same I lost.

Nothing makes sense, anymore. This flanderized Yann existed for these people who don't even notice I've been replaced by a computer. "HELP! I'VE BEEN REPLACED BY A COMPUTER", I mimic out loud, chuckling. Poetic justice, I suppose. I have certainly been treated like a computer. For over two years I've been challenged, pushed, and coerced into making this, making that, fixing this, addressing every whim of randos on the web, and eventually exclusively SD's. Like a jester, I've pigeonholed my craft into idiotic symbolism with enough contrast and details in every scene that the braindead sparrows don't flutter away. Jump when they say jump. Fast, ASAP, by today. Use your imagination to create something no one ever has, and do it in three hours, and full color. One day people may tire of this jester, and I would understand that. But that's not happened.

People are in LOVE with the jester. More and more people are flocking to his channel, his viewcount, as well as his frequency of uploads is higher than ever before. Only, they put a puppet in this jester's skin and can now make him dance any which way, for as long as they want. And as of last night, the puppet is no longer being controlled by SpuriousDrumming. He was kind enough to release the model online, for anyone to download and use. His release tweets read like a child running through a lego store, eyes wide open and out of breath. I suppose I can understand that, at some level. Like a blue collar worker staring confused, and yet, impressed, at the shiny robotic arm installed in his place, I can't disagree that this stuff is cool.

But is it art? As Matt said, it's additions and multiplications done billions of times over billions of this and billions of that. But does that stop it from being art? It certainly looks like art whether it's me or the machine producing it. Maybe that is all there is. Maybe creativity does not exist. Or maybe, just maybe, I let go of creativity long ago. I don't remember when I drew something without being prompted. My prompts were longer, and had money dangling at the other end but no harm now in calling it what it is. Content. I create content. I don't see videos. I consume content. I don't listen to podcasts, I fill my ears with content. We all do. Amorphous streams of meaningless arguments and facts put forth for no reason other than propagating themselves to as many people as they can. Can't say I lost my art, then I guess. Only my livelihood.

May 4th, 2023

When I woke up this morning, the sun was already high in a bright blue sky. Winter is definitely behind us, as well as all of this story. It is hard to believe that six months have already passed. This story is behind me. For the better.

In February, I found a job in retail at the local supermarket. Not the most fulfilling, but hey, at least I get to eat and keep my apartment. And most importantly, I am now away from all of this bullshit.

Today, I have a date. It is a girl I met a few weeks ago. I proposed that we take a walk in the park, breathe some fresh air and, you know, get to know each other better. I came early, more than an hour early. Maybe because I wanted to be alone first, get a touch of the atmosphere before sharing it with somebody. I brought my notebook with me, probably for nothing. I haven't drawn anything since.

I walk a bit around the blossoming trees, then I sit on a bench, admiring the landscape. This particular scene on my left, with the pond full of ducks and an elderly man feeding them from

under an oak tree catches my attention. For some reason, it inspires me. I take my notebook out of my backpack, as well as a pencil, and I start scribbling. At first, with no real intention, just for the pleasure of feeling the lead sliding onto the paper. Shapes appear, a runner here, a flower there. I am having fun.

"Hey", I hear over my shoulder. As I look up, I recognize Anna standing right next to me. I completely lost the sense of time. Almost forgot she was supposed to join me.

"Sorry, I am a bit late, I hope you didn't wait too long", she apologizes.

"Nah, it's fine. I was just...

– Drawing ?

– Yeah. I guess."

She takes a quick look at the open page on my notebooks, examining the scribbles of trees, flowers and people passing by. It makes me feel surprisingly vulnerable, almost naked.

" It's beautiful, I like it", she says with a smile.

"Thanks."

THE FORGOTTEN SCIENCE

Diego Vega
William Soto
Nicolas Leutwyler

The Forgotten Science
VEGA, Diego
SOTO, William
LEUTWYLER, Nicolas

November 23, 2022

Act 1

The sun was setting, and the temperature was mild. Alex, a post-doc from the prestigious lab X, thought there was no better time to celebrate what for her was a great milestone in her career.

Having produced a significant improvement in the number of cancer cells attacked by the cancer cure was not something that was seen every day. Furthermore, publishing it in the journal 'The best results in medicine' was her dream since she started her career in sciences.

"What will Diego think when I tell him?" Alex thought.

"It's been a long time since I spoke to him" she said to herself with regret. The last few years, Alex had been working non-stop due to the large number of publications that she had to submit to justify her post-doc.

"Hey, have you got your head in the clouds again?" interrupted Elisa, one of her best friends, whom she met during an excursion while she was doing the second year of her doctorate.

"Nothing like that. I was just thinking about how we are going to improve our positions after today" said Alex, while she wrote down in her reminder "call Diego to tell him the good news".

"Buh, that's the least important thing to me right now" Elisa replied with an air of concern "In four months I have to present eleven more articles to be able to make a good thesis defense."

Alex had already gone through that stage, and she didn't think it was too much, but she still looked at her compassionately and patted her on the back to show empathy.

While the party continued, Elisa and Alex drank and had fun telling childhood stories, until at one point, Alex saw out of the corner of her eye that Cristian, the director of the laboratory, was sitting in an armchair writing on his computer, oblivious to his surroundings.

"Typical of Cristian" thought Alex while she told Elisa: "Let's take Cris out of work for a while, that man never stops."

Cristian was the director of the laboratory, and at least from what Alex had seen, his work was his life - even more than for her.

"Isn't the party to your liking, Cristian?" Elisa asked as Alex sat next to him knowing what she's getting herself into.

"Tomorrow we have to present the medicine article about doubling life expectancy, you forgot?" Cristian asked, ignoring the question, and without raising his eyes from the screen.

"There is no need to rush. We still have all morning for that. Now it's time to celebrate. Or not Elizabeth?" Alex replied joking. The truth is that she sincerely had no intention of letting a grump like Cristian ruin a day like that.

Elisa looked at her with a worried air, but she replied anyway "Totally, come on, it's just a few more minutes!"

"Tsk" Cristian made a noise difficult to understand, closed his computer, and left the room.

Alex knew that couldn't be a good sign, but for now it was best to let it go.

"I'm going to the bathroom for a moment, Elisa, I'll be back" Alex excused himself to have a moment to talk to her best friend.

"Finally someone who is going to congratulate me for this achievement that cost me so much" thought Alex as she dialled Diego's number.

"No one answers. That's unusual. Has the number changed?" Alex wondered.

"I'd better call his work number, maybe his personal phone is turned off right now" she thought, unsure if she was going to bother him.

After pondering for a few minutes, she decided that she really wanted to talk to him and also that he would most likely be happy that she called him.

"Hello? This is 'The Leftover Leaves Library', what can I do for you?" answered a particular voice.

"Ummm, yes. I'd like to speak with Diego... Ehmmm Diego Vásquez. Tell him it's Alex."

"Diego Vasquez? Is this a joke?" answered the little voice, with an anger that Alex would have been unable to imagine before hearing it.

"A joke? I don't understand. Why would it be a joke?" Alex asked, trying to sound as friendly as possible.

"Diego died 3 months ago. The cancer he had been battling for so long was too much for him."

"What? No, it's not possible. Didn't they give him the cure?" Alex answered quickly, without first being able to order her thoughts.

"Well, this is definitely a joke. Have a nice day Mrs Alex. Don't call here again" said the peculiar voice, and hung up immediately.

There was no way that what she had just heard was true, there was no way that someone could die of cancer in a society with as many advances as the one they lived in. It just couldn't be true. No meaningful thoughts came into her mind. The only thing she felt was the warmth of the tears running down her cheeks.

Act 2

"Fifty years ago the cure for cancer was discovered. Just yesterday we were celebrating a significant improvement in its performance." Alex's voice could be heard from outside the principal's office. "How is it possible for something like this to happen?"

The director's tired eyes darted from side to side, while small beads of sweat formed on his wrinkled temples.

"I'm so sorry Alex. Losing someone important is never easy. But you know that there are no perfect cures." Cristian lowered his gaze and his tone of voice. "But we can't stop our investigation because your friend had bad luck."

"Are you telling me to go back to the office and keep developing more improvements for a cure that might not be working?"

"I'm not telling you to go back to the office Alex. If you want, you can take the day to rest." Cristian's voice was no longer more than a murmur. "But don't let an outlier get in the way of your research. The lab depends on us continuing to publish as fast as we can."

At 50 years old, Cristian was not a particularly threatening figure, but his position, his many years of experience and being a direct descendant of the father of the synthetic data revolution gave him unquestionable authority. Alex had learned long ago not to argue when he wasn't willing to.

"I understand" she said, trying to calm herself down. "I don't need a break. I'll go back to the office."

Alex dropped into her chair and sighed heavily. A few tears rolled slowly down her cheeks. She hadn't just lost one of her closest friends, one of the few who still spoke to her since she started her Ph.D., suddenly her research seemed completely useless. What good is a post doctorate as a cure maker if people didn't get cured?

"Are you alright Alex?" Elisa had entered her office without her noticing.

"Diego has died of cancer." Her voice cracked and the tears began to flow freely. "Diego has died of cancer and I haven't been able to do anything."

Elisa approached Alex and took her hands waiting in silence until her crying stopped.

"There must be something wrong with our investigation if the cure isn't working, but Cristian doesn't want to know anything about it." Wiping her tears, Alex looked Elisa in the eye. "I need you to help me investigate this."

"I don't know how I can help you," the young doctoral student said, "but I'll do what I can."

"Cristian said that Diego simply had bad luck, that his death was nothing more than an atypical value. Do you think we can find out how effective the current cancer cure is?" Her eyes were filled with determination.

"Sure, we can ask AUGURIO."

Elisa walked over to the computer and entered some commands into the lab terminal. The data generation system processed the query and after a few seconds the answer appeared on the screen: "The current cure against cancer is 99.999% effective"

The researchers looked at the screen in silence for a while. Elisa entered a new query into the system before Alex could say anything. Shortly after the system-generated response appeared: "Every 10 years a person dies from cancer in the world."

"The probability can't be that low," Alex said with exasperation, "I refuse to believe this."

"Are you saying that AUGURIO doesn't work?"

"I would never say that! It is the foundation of our society. But maybe it's miscalibrated. Is there a way to check the data? You know more about how the system works, I only use the data it generates."

"Check the data? What do you mean by that?"

"I don't know. How do we know that the data is correct?"

"I never think about this. AUGURIO has always been right."

"Maybe we could ask the hospitals. That's what they did before AUGURIO, right?" Alex said with some doubt in her voice.

"I guess we can try" Elisa entered a command into the terminal and the computer began calling the nearest hospital.

After several minutes of being transferred from one department to another and a complex verification process, the researchers were able to contact a doctor who could help them. When they heard that three people a day died of cancer in the regional hospital alone, a feeling of defeat invaded them. The rest of the day both continued to call different hospitals to corroborate the data and the story kept repeating itself. When they finished calling all the hospitals in the region, they discovered that almost 100 people were dying every day.

Definitely the next step is to call Cristian, to understand the situation that does not fit with the data processed in the laboratory.

"Hello? Christian?" Alex began the call emotionally.

"Yes, how are you Alex?" answered the director.

"Not so good, I would like to understand one thing about our research, are we improving a cure that is not used? It is nonexistent?" Alex questioned immediately.

"What are you talking about? The production of cures is not our field of research."

"I know that, but what happened to those in charge of that?" Alex continued with the interrogation.

"There are other laboratories that take care of that." He answered without changing his tone.
"But Cristian, what would happen if everyone thinks like this? If no one is currently doing that?"

"I don't think that is possible, there are many scientists. Just because it is out of our focus, it doesn't mean that nothing is being done."

"But I am really worried that it will not be done and I feel that I have sufficient training for this... I would like to start investigating this topic." Alex suggested timidly.

"But Alex, our laboratory focuses on other things" Cristian paused trying to think of a solution that Alex would find compelling. "I do not advise you to pursue this line of research, I cannot argue in favour of your permanent job in the laboratory with regard to the directives if you decide to make this change of direction."

"I don't understand, is that really necessary?"

"I can assure you that it will be very difficult to keep you in my team, please think about it."

"I will, thanks for your honesty." Alex ended the call and took a second to process the implications of this conversation.

Act 3

After this conversation, Alex began to ramble on the way back to the taxi with her friend Elisa.

At one point, they stop and think "There is a problem with the system, which despite having an initial motivation consistent with science itself, many years ago lost its humanitarian objective and focused on producing conceptual advances, gradually leaving aside humanity itself." They agree that the truth is difficult to face, but this does not justify turning a blind eye and continuing to cure diseases theoretically. Right now they were facing the possibility of losing their positions at Lab X and part of their scientific credibility as a result of their separation from their research base field. Also they would possibly be fighting against the tide as they already knew that the trends of the last decades are so focused on theoretical publications.

"I think this decision is devastating, but I've already made it... I'm going to start doing the forgotten science" Alex eventually broke off the conversation.

"Forgotten science?" Elisa exclaimed with a curious expression.

"Yes! The science that thinks about applying scientific advances in daily problems of humanity, science by and for humanity." Alex began to increase her emotion and eloquence as she went on with her answer.

"If we are really experts in cures, we must be able to make real advances that lead to the cure of some disease eventually. It may not be myself, but I will be happy to know that I contributed to the process that brought all this theoretical science encapsulated in honoured and acclaimed scientific journals to a real product that will help people like Diego or anyone in need."

"This isn't our responsibility, is it?" Elisa replies with hesitation in her tone. "I feel like I have to, but I'm sure someone else will eventually. Is it necessary for me to lose my job?"

"A change is necessary, that's all I can say" Alex said calmly, changing her very animated tone to a moderate tone that showed her relief after expressing her decision. "Remember that this is a personal decision, if you want to continue on your way, I understand and I will never judge you."

"I won't feel good about myself if I don't finish my Ph.D." Elisa paused slightly to take a breath. "But I feel the same as you, I cannot support a process that deceived me, I want to follow you on your way, but first I will finish what I already started."

"I completely understand, it will be a bit difficult to start, but don't doubt that I will have a position available for you when you decide to join me" Alex said without hiding the illusion behind her words.

"That's right" Elisa concluded before reaching her destination, saying goodbye to her friend and getting out of the taxi.

Three years later...

As the sun sets for a new day in the lives of Alex and Elisa, they open a bottle of champagne in their office which is noticeably smaller than their previous office. However this hasn't affected their motivation to investigate in the least. The two friends have written a new article and know that its scientific impact is relevant, but are not sure about its impact on the scientific community.

"Can you believe we made it?" Alex said with a glass in her hand while Elisa served the champagne.

"I am very excited" she exclaimed smiling "It is a small contribution to medicine, but we are on the right track."

"I'm sure doctors will be very interested in the subject, but you know what our real challenge is..." Alex smiled and took a complicit tone with her friend.

"The researchers will have to listen to us, we are going to flood the university with our article, eventually someone will understand the problem or see the importance of the contribution we've made," her friend replied.

"We have an interesting set of real data!!! That's going to blow their heads off." Alex said laughing.

The next day, they headed to the university together with many copies of their paper.
Unlike their previous papers this one took almost two years to complete and the work included many experiments that helped them generate real data. They set about posting copies on all the bulletin boards at the National University of Medical Sciences, as well as manually distributing the document to students passing through campus. Some people looked sceptically at the researchers handing out a formal document in such an outdated way. A group of Healing Engineering seniors walk up and start arguing with Alex and Elisa.

"Your article looks interesting, but... why not publish it in a scientific journal? Instead of being here doing unnecessary work," questioned one of the students.

"Our article is not of interest to the big journals, we want the community to know about this work and we want to start with you... the future of our field of research." Elisa answered very excited.

"But if your results are successful, it is enough to deserve the credit of a publication right?" continued the student.

"The problem is that our data are real, we did not use the AUGURIO system at any time" Alex smiled while she said it, waiting for an obvious reaction from the students.

Immediately another of the students let out a small laugh and then recomposed himself to say "I understand why they are not going to be published in any magazine" he exclaimed trying to be respectful even though his reaction was visibly rude.

Alex immediately replied "That is our contribution to science, we managed to show that one of the supposed cancer cures in the literature is not compatible with any of the current cancer patients in the Local Hospital" she explained, hoping to provoke curiosity in the students.

This led to a predictable discussion by Alex and Elisa about the advantages of producing breakthroughs with funding and speed versus extensive unsponsored theory collecting and testing work. Finally, the group left with some unanswered questions that could possibly be the seed that will contribute to the rebirth of these ideals in the future.

At the end of the day, Alex notices that a student is approaching her and her friend with determination, before starting the interaction she remembers that it is one of the students with whom she talked throughout the day.

"Hello! Maybe you don't remember me, but this morning we were with some friends arguing with you..." the student started the conversation.

"Of course we remember you! It's been a long day but we are very excited to discuss this with people who come out of mere curiosity." Alex said with joy as she saw some interest from the student.

"I would like to know if you can explain your article properly to me - there are some things that I definitely do not understand and there are other statements that leave me perplexed... Are the mortality rates from cancer that you present true?" asked the student with a slight tone of concern and scepticism.

"They are, if you want the 3 of us go for a coffee and discuss all your doubts, we will be happy to clarify your doubts..."

THE END

LA CIENCIA OLVIDADA

Diego Vega
William Soto
Nicolas Leutwyler

La ciencia olvidada

VEGA, Diego
SOTO, William
LEUTWYLER, Nicolas

November 23, 2022

Act 1

El sol se ponía, y la temperatura estaba templada. Alex, una post-doc del prestigioso laboratorio X, pensaba que no había mejor momento para celebrar lo que para ella era un gran hito de su carrera.

Haber producido una mejora significativa en la cantidad de células cancerígenas atacadas por la cura del cáncer no era algo que se veía todos los días. Más aún, publicarlo en la revista "Los mejores resultados en medicina" era su sueño desde que empezó su carrera en la academia.

– ¿Qué pensará Diego cuando le cuente? — pensó Alex.

– Hace mucho tiempo que no le hablo — se dijo con pesar. Los últimos años, Alex estuvo trabajando sin cesar debido a la gran cantidad de publicaciones que tenía que presentar para justificar su post-doc.

– Hey, de nuevo con la cabeza en la luna? – la interrumpió Elisa, una de sus mejores amigas, que conoció durante una excursión mientras estaba haciendo el segundo año de su doctorado.

— Nada de eso. Solo estaba pensando en cómo vamos a mejorar nuestras posiciones después de hoy - dijo Alex, mientras anotaba en su recordatorio <llamar a Diego para contarle las buenas noticias>.

— Buh, es lo que menos me importa ahora — Le respondió Elisa con un aire de preocupada - En cuatro meses tengo que presentar once artículos más para poder hacer una buena defensa de tesis.

Alex ya había pasado por esa etapa, y no le parecía que fuera mucho, pero igualmente la miró compasivamente y le dio unas palmadas en la espalda para mostrar empatía.

Mientras la fiesta continuaba, Elisa y Alex bebieron y se divirtieron contando historias de la infancia, hasta que en un momento, Alex vio de reojo que Cristian, el director del laboratorio,

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estaba sentado en un sillón escribiendo en su computadora, ajeno a su entorno.

—Típico de Cristian — pensó Alex mientras le decía a Elisa: — Vamos a sacar a Cris del trabajo un rato que no para nunca ese hombre. —

Cristian era el director del laboratorio, y al menos por lo que había visto Alex, su trabajo era su vida, aún más que para ella.

— ¿La fiesta no está a tu gusto, Cristian? — Preguntó Elisa mientras Alex se sentaba a su lado con el cuidado de alguien que conoce en qué se está metiendo.

— Mañana tenemos que presentar el artículo de la medicina para duplicar la expectativa de vida. Se olvidaron? — Preguntó Cristian, ignorando la pregunta, y sin levantar los ojos de la pantalla.

— No hay que apresurarse. Aún tenemos toda la madrugada para eso. Ahora es momento de festejar. ¿O no Elisa? — Respondió Alex, con un aire jocoso. La verdad es que estaba sinceramente sin ninguna intención de que un cascarrabias como Cristian arruine un día como ese.

Elisa la miró con un aire preocupado, pero respondió igualmente — Totalmente, vamos, ¡son solo unos minutos más! —.

— Tsk — Cristian hizo un ruido difícil de comprender, cerró su computadora, y se fue de la habitación.

Alex sabía que eso no podía ser una buena señal, pero por el momento lo mejor era dejarlo ser.

— Voy un momento al baño Elisa, ya vuelvo — se excusó Alex para tener un momento para hablar con su mejor amigo.

— Finalmente alguien que me va a felicitar por esto que me costó tanto — pensó Alex al marcar el número de Diego.

— Nadie responde. Es raro. ¿Habrá cambiado de número? — se preguntó Alex.

— Mejor voy a llamar a su trabajo, quizás tiene su teléfono personal apagado en este momento — pensó, insegura de sí lo iba a molestar.

Luego de reflexionar por unos minutos, decidió que igualmente tenía muchas ganas de hablar con él y que lo más probable es que a él también le alegre que lo llame.

— Hola? Biblioteca "las hojas que sobran". ¿En qué puedo ayudarlo? — atendió una voz particular.

— Ehmmm, sí. Estaría buscando hablar con Diego… Ehmmm Diego Vásquez. Dígale que soy Alex. —

— ¿Diego Vásquez? ¿Es esto una broma? — respondió la vocecita, con un enojo que Alex hubiera sido incapaz de imaginarse antes de escucharlo.

— ¿Una broma? No, disculpe. ¿Por qué sería una broma? — Le preguntó Alex, intentando sonar lo más amable posible.

— Diego murió hace 3 meses. El cáncer contra el que estuvo luchando tanto tiempo fue demasiado para él. —

— ¿Cómo? No... No es posible. ¿No le dieron la cura? — respondió rápidamente Alex, sin antes poder ordenar sus pensamientos.

— Bueno, definitivamente esto es una broma. Que tenga un buen día señora Alex. No vuelva a llamar por acá. — Dijo la voz peculiar, y cortó inmediatamente.

No había forma que lo que acababa de escuchar sea cierto, no había forma de que alguien muera de cáncer en una sociedad con tantos avances como en la que ellos vivían. Simplemente, no podía ser verdad. Ningún pensamiento con sentido salía de sí. Lo único que sentía era la calidez de las lágrimas que corrían por sus mejillas.

Act 2

—Hace 50 años que se descubrió la cura del cáncer. Justo ayer celebrábamos una mejora significativa en su funcionamiento —la voz de Alex se podía escuchar desde afuera de la oficina del director — ¿Cómo es posible que algo como esto suceda?

Los cansados ojos del director se movían nerviosamente de un lado al otro, mientras pequeñas gotas de sudor se formaban en sus sienes arrugadas.

—Lo lamento mucho Alex. Nunca es fácil perder a alguien importante. Pero ya sabes que no hay curas perfectas —Cristian bajó la mirada y el tono de su voz— pero no podemos detener nuestra investigación porque tu amigo tuvo mala suerte.

—¿Me estás diciendo que vuelva a la oficina y siga desarrollando más mejoras para una cura que podría no estar funcionando?

—No te estoy diciendo que vuelvas a la oficina Alex. Si quieres puedes tomarte el día para descansar —la voz de Cristian no era ya más que un murmullo—. Pero no dejes que un valor atípico se interponga en tu investigación. El laboratorio depende de que sigamos publicando tan rápido como podamos.

A sus 50 años, Cristian no era una figura particularmente amenazadora, pero su posición, sus muchos años de experiencia y ser descendiente directo del padre de la revolución de datos sintéticos le daban una autoridad indiscutible. Alex había aprendido hace mucho a no discutir cuando él no estaba dispuesto a hacerlo.

—Entiendo —dijo ella tratando de calmarse—. No necesito un descanso. Vuelvo a la oficina.

Alex se dejó caer en su silla y suspiró profundamente. Unas cuantas lágrimas rodaron lentamente por sus mejillas. No solo había perdido a uno de sus amigos más cercanos, uno de los pocos que aún hablaban con ella desde que comenzó su doctorado, de repente la investigación de su vida parecía ser completamente inútil. ¿De qué servía un post doctorado como hacedora de curas si las personas no se curaban?

—¿Estás bien Alex? —Elisa había entrado en su oficina sin que ella se diera cuenta.

—Diego ha muerto de cáncer —su voz se quebró y las lágrimas comenzaron a correr libremente—. Diego ha muerto de cáncer y yo no he podido hacer nada.

Elisa se acercó a Alex y la tomó de las manos esperando en silencio hasta que el llanto parara.

—Debe haber algo mal con nuestra investigación si la cura no está funcionando, pero Cristian no quiere saber nada del tema —secándose las lágrimas, Alex miró a Elisa a los ojos—. Necesito que me ayudes a investigar al respecto.

—No sé cómo puedo ayudarte —dijo la joven doctoranda— pero haré lo que esté a mi alcance.

—Cristian dijo que Diego simplemente tuvo mala suerte, que su muerte no fue más que un valor atípico. ¿Crees que podamos descubrir cuál es la eficacia de la actual cura contra el cáncer? —sus ojos estaban llenos de determinación.

—Claro, podemos preguntarle a AUGURIO.

Elisa se acercó al ordenador e introdujo algunos comandos en la terminal del laboratorio. El sistema de generación de datos procesó la consulta y luego de unos segundos la respuesta apareció en la pantalla:

La actual cura contra el cáncer tiene un 99.999% de eficacia.

Las investigadoras miraron a la pantalla en silencio por un tiempo. Elisa introdujo una nueva consulta en el sistema antes de que Alex pudiera decir algo. Poco después la respuesta generada por el sistema apareció:

Cada 10 años muere una persona a causa de cáncer en el mundo.

—La probabilidad no puede ser tan baja —dijo Alex con exasperación— me resisto a creer esto.

—¿Estás diciendo que AUGURIO no funciona?

—¡Jamás diría eso! Es la base de nuestra sociedad. Pero tal vez está mal calibrado. ¿Hay alguna forma de verificar los datos? Tu sabes más sobre cómo funciona el sistema, yo solo se usa los datos que genera.

—¿Verificar los datos? ¿Qué quieres decir con eso?

—No lo sé ¿Cómo sabemos qué los datos son correctos?

—Nunca había pensado en eso. AUGURIO siempre ha estado en lo correcto.

—Tal vez podríamos preguntar en los hospitales. Eso hacían antes de AUGURIO ¿No? —dijo Alex con algo de duda en su voz.

—Supongo que podemos intentarlo —Elisa introdujo un comando en la terminal y la computadora comenzó a llamar al hospital más cercano.

Luego de varios minutos siendo transferidas de un departamento a otro y un complejo proceso de verificación, las investigadoras lograron ponerse en contacto con un médico que podía ayudarlas. Cuando escucharon que solo en el Hospital regional morían de cáncer tres personas al día un sentimiento de derrota las invadió. El resto del día ambas continuaron llamando a diferentes hospitales para corroborar los datos y la historia se seguía repitiendo. Cuando terminaron de llamar a todos los hospitales de la región descubrieron que morían casi 100 personas al día.

Definitivamente el siguiente paso es llamar a Cristian, para entender la situación que no encaja con los datos que se manejan en el laboratorio.

– Alo? Cristian? – Alex Empezó la llamada anímicamente.

– Si, ¿Cómo vas Alex? – respondió el director.

– Más o menos, quisiera entender una cosa sobre nuestra investigación, ¿estamos mejorando una cura que no se usa? Que no existe ? – Cuestionó inmediatamente Alex.

– ¿De qué estás hablando? La producción de curas no es nuestro campo de investigación?

– Eso lo sé, pero ¿qué ha pasado con los encargados de eso? – Continuó Alex con el interrogatorio.

– Habrán otros laboratorios que se encarguen de eso. – respondió sin alterarse ni un poco.

– Pero Cristian, qué pasaría si todos piensan así? Si actualmente nadie está haciendo eso?

– No creo que eso sea posible, somos muchos científicos, no porque esté fuera de nuestro enfoque, significa que no se esté haciendo nada.

– Pero de verdad me preocupa que no se haga y siento que tengo la formación suficiente para esto… Quisiera empezar a investigar en este tema. - propuso Alex tímidamente.

– Pero Alex, nuestro laboratorio se enfoca en otras cosas. - Cristian hizo una pausa intentando pensar en una solución que Alex encuentre interesante - No te aconsejo que persigas esta línea de investigación, no puedo argumentar tu permanencia en el laboratorio ante las directivas si decides hacer este cambio de dirección.

– No entiendo, ¿de verdad es necesario eso?

– Puedo asegurarte que será muy difícil mantenerte en mi equipo, piensalo por favor.

– Lo haré, gracias por su sinceridad - Alex terminó la llamada y tomó un segundo para procesar las implicaciones de esta conversación.

Act 3

Despúes de esta conversación, Alex empezó a divagar en el camino de vuelta en el taxi junto a su amiga Elisa.

En un momento, se paran y piensan — Existe un problema con el sistema, que a pesar de tener una motivación inicial congruente con la ciencia misma, hace muchos años perdió su objetivo humanitario y se enfocó en producir avances conceptuales, dejando gradualmente de lado la humanidad misma. — Se ponen de acuerdo en que la verdad es difícil de afrontar, pero esto no justifica hacer la vista gorda y continuar curando enfermedades teóricamente. En este momento se enfrentan a la posibilidad de perder su posición en el laboratorio X. Parte de su credibilidad científica como resultado de su separación de su campo base de investigación y una posible lucha contra la corriente, ya sabiendo que las tendencias actuales traen una inercia muy fuerte con las publicaciones teóricas de las últimas décadas.

—Creo que esta decisión es devastadora, pero ya la he tomado… Voy a empezar a hacer la ciencia olvidada —Eventualmente Alex interrumpió la conversación.

—La ciencia olvidada? —exclamó Elisa con una expresión de curiosidad.

—Si! La ciencia que piensa en aplicar los avances científicos en problemas cotidianos de la humanidad, la ciencia por y para la humanidad.— Alex empezó a aumentar su emoción

y elocuencia mientras avanzaba con su respuesta— Si de verdad somos expertas en curas, debemos poder hacer avances reales que lleven a la cura de alguna enfermedad eventualmente. Tal vez no seré yo misma, pero estaré contenta con saber que contribuí al proceso que llevó toda esta ciencia teórica encapsulada en revistas científicas honoradas y aclamadas a un producto real que ayudará a personas como Diego o cualquier persona que lo necesite.

—Esto no es nuestra responsabilidad, o si?— Elisa responde con duda en su tono – Siento que debo hacerlo, pero estoy segura de que alguien más eventualmente lo hará. ¿Es necesario que yo pierda mi puesto?

—Es necesario un cambio, es lo único que puedo decir - Alex dijo calmadamente, cambiando su tono muy animado a un tono moderado que mostraba su alivio tras exteriorizar su decisión - Recuerda que esta es una decisión personal, si tu quieres continuar tu camino, lo entiendo y no te juzgare jamás.

—No me sentiré bien conmigo misma si no termino mi doctorado. – Elisa hace una pequeña pausa para tomar aire – pero me siento igual que tu, no puedo respaldar un proceso que me engañó, quiero seguirte en tu camino, pero primero terminaré lo que ya empecé.

– Entiendo completamente, será un poco difícil empezar, pero no dudes que tendré una posición disponible para ti cuando decidas unirte a mi - dijo Alex sin ocultar la ilusión detrás de sus palabras.

– Así será - Concluyó Elisa antes de llegar a su destino, despedirse de su amiga y descender del taxi.

Tres años después…

El sol se pone para un nuevo día en la vida de Alex y Elisa, ellas destapan una botella de champaña desde su oficina que es notablemente más pequeña que su oficina anterior, pero que no ha afectado en lo mínimo su motivación a investigar. Un nuevo artículo escrito por estas amigas, ellas saben que su impacto científico es relevante, pero en cuanto a su impacto en la comunidad científica, no están seguras.

– Puedes creer que lo logramos? – dijo Alex con la botella en la mano mientras Elisa servía la champaña.

– Estoy muy emocionada – Exclamó sonriendo - Es un pequeño aporte a la medicina, pero vamos en el camino correcto.

– Estoy segura que los médicos estarán muy interesados en el tema, pero ya sabes cuál es nuestro verdadero reto - Alex sonrió y tomó un tono cómplice con su amiga.

– Los investigadores tendrán que escucharnos, vamos a inundar la universidad con nuestro artículo, eventualmente alguna persona entenderá el problema o verá la importancia del aporte que hicimos. - respondió su amiga.

– Tener un conjunto interesante de datos reales!!! Eso les va a volar la cabeza - Dijo Alex riendo.

Al día siguiente, se dirigieron juntas a la universidad con muchas copias de su artículo, que a diferencia de sus artículos anteriores tomó casi dos años realizarlo y muchos experimentos que les ayudaron a generar datos reales. Se dispusieron a colgar copias en todas las pizarras de anuncios de la Universidad Nacional de Ciencias Médicas, además de distribuir manualmente el

documento a los estudiantes que pasaban por el campus. Algunas personas miraban escépticas a las investigadoras repartiendo un documento formal de una manera tan obsoleta. Un grupo de estudiantes de último año en Ingeniería Curativa se acerca y empieza a discutir con Alex y Elisa.

– Su artículo se ve interesante, pero... por qué no lo publican en una revista científica? En vez de estar acá haciendo trabajo innecesario. – Cuestionó uno de los estudiantes.

– Nuestro artículo no le interesa a las grandes revistas, queremos que la comunidad conozca este trabajo y queremos empezar con ustedes... el futuro de nuestro campo de investigación - Respondió Elisa muy emocionada.

– Pero si sus resultados son exitosos, es suficiente para merecer el crédito de una publicación, ¿no? - continuó el estudiante.

– El problema es que nuestros datos son reales, no usamos en ningún momento el sistema AUGURIO - Sonrió Alex mientras lo decía, esperando una obvia reacción de los estudiantes.

Inmediatamente otro de los estudiantes soltó una pequeña carcajada y se recompuso para decir – Ya entiendo por qué no las van a publicar en ninguna revista. - Exclamó intentando ser respetuoso a pesar que su reacción fue visiblemente grosera.

Alex inmediatamente respondió - Ese es nuestro aporte a la ciencia, logramos demostrar que una de las supuestas curas de cáncer de la literatura, no es compatible con ninguno de los pacientes de cáncer actuales en el Hospital Local. - explicó esperando encontrar la curiosidad en los estudiantes.

Esto llevó a una discusión previsible por Alex y Elisa, sobre las ventajas de producir avances con financiamiento y velocidad contra el trabajo extenso de recolección y prueba de teorías sin patrocinio. Finalmente, el grupo partió con algunas preguntas sin responder que posiblemente pueden ser la semilla que en el futuro contribuirá con el renacimiento de estos ideales.

Al final del día, Alex se percata que un estudiante se acerca con decisión a ella y su amiga, antes de empezar la interacción recuerda que es uno de los estudiantes con los que conversó a lo largo del día.

– Hola! Tal vez no me recuerdes, pero esta mañana estuvimos con unos amigos discutiendo con ustedes.. - Empezó la conversación el estudiante.

– ¡Claro que te recordamos! Ha sido un día largo pero estamos muy emocionadas de discutir esto con las personas que se acercan por mera curiosidad - Dijo Alex con alegría por sentir un poco de interés por parte del estudiante.

– Quisiera saber si puedes explicarme bien tu artículo, hay algunas cosas que definitivamente no entiendo y hay otras afirmaciones que me dejan perplejo... ¿Son verdaderas las cifras de muertos de cáncer que publicaron? – Preguntó el estudiante con un tono ligero de preocupación y escepticismo.

– Lo son, si quieres vamos por un café los 3 y discutimos todas tus dudas, estaremos contentas de aclarar tus dudas.

FIN

THESEUS

WRECK

Athénaïs Vaginay
Aya Yaacoub
Philippe Flores
Aman Sinha

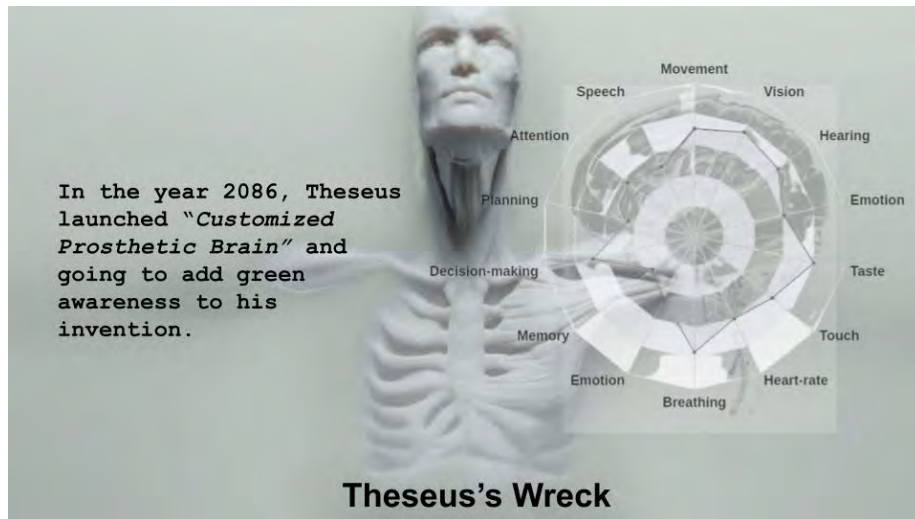# Ethics in Computer Science: Write your dystopia

November 25, 2022

Aman, Athénaïs, Aya, Philippe

In the year 2086, Theseus launched "*Customized Prosthetic Brain*" and going to add green awareness to his invention.

Theseus's Wreck

Act I – Theseus, 2086

I am so happy for the evening I had tonight. Going for dinner to my favorite steakhouse with Prasinos, my childhood friend... I've been waiting for this for 3 years! We used to see each other every year, but we skipped our usual appointment for two years in a row because of work. What a shame; we had so much to catch-up about.

On my side, I was eager to share about all my successful projects. Of course, Prasinos had heard about my company. Who could have missed all the breakthroughs of my company on the market of smart prosthetics, and ground-breaking prosthetic brain. We had so much to discuss regarding the design process and the brain characteristics. It is really my proudest invention yet! A super brain that can operate on a long list of features. Who else could have imagined that? Everyone can be an artist and a scientist, they can learn as many languages as they choose, they can also be more sportive or more nerdy, it is a piece of art! I could also show off regarding the super brain I replaced my older one with. I was curious about the reaction of Prasinos, and he was indeed very impressed.

Also, I was particularly excited to hear what Prasinos has been up to, especially regarding the ecological crisis that has become more detrimental than ever. My dear friend is an antique seeds broker, and has always been ecologically aware. One thing which surprised me is how much Prasinos aged! I was suspecting it might be because all the stress caused by ecological situation, and he confirmed my hypothesis.

The best part of the evening is certainly when Prasinos tried to convince me to implement a green brain. He is convinced that my brains could make the change needed to protect our planet, by somehow forcing people to act more green. What a sweet dreamer, this Prasinos. I really appreciate that about him.

I can't wait for our next diner.

Act II – Mylène, 2089

I had a surprising amount of fun following a tutorial about how to make compost. Who would have thought that me, a simple butcher, who used to drive big cars and hate these kinds of hipster bobo actions... I am so glad to live in Kokeilu[1] as all the inhabitants were proposed to be part of the new experiment of Theseus corporation: the project NewEarth. It started a few months ago as a way of dealing with the awful global warming Earth is facing. The goal of the project is to implement some ecological consciousness, and small easy green actions. Everybody is excited about this! It is not the first time they pick us to experiment with their prosthetics. Every now and then, the big boss comes (in person!) and proposes to us to get access to brain updates and other body prosthetic gadgets, for free! So far, we benefited from learning several languages. Knotting our shoes with the most efficient lace knot science could come up with so far (strong knot but still easy to remove). We are also very good at arm wrestling, thanks to one of the latest arm updates...

Act III – Theseus, 2094

It has been five years since we started the NewEarth experiment on the inhabitants of Kokeilu. And what a success! All the villagers steadily developed a green consciousness, which is now very strong. They started implementing simple actions such as compost. Then they began permaculture, and changed the way they consume. I never truly believed that a true and democratic change of mentality would save us from the climate crisis. Forced ecological awareness is the way to go. This innovation is definitively for the greater good, and I am finally ready to deploy it on every person who owns a prosthetic brain from Theseus Corporation, including myself.
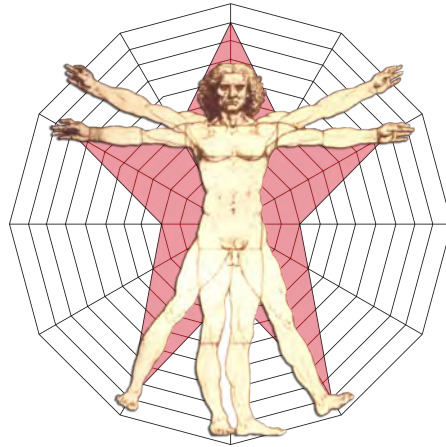
Act IV – Mylène, 2094

I am freaking out now I realize how awful my work is. Dead animals everywhere. It is what I see in this butchery... How could I ever be happy with this job? I vaguely remember myself as a kid, saying I would like to be a butcher, like my parents before me. So how come? Was I once even happy with this job? I certainly was, yes. And for a long time. So why the hell do I hate it now? Maybe it is this stupid green update I benefited for some years now? I would not be the first one complaining of dark thoughts. My neighbor told me his son suffers from strong eco-anxiety. He even had to be hospitalized recently. But let's go back to the point, the reason why I hate my job is straightforward. I am selling

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[1] means "experiment" in finnish

meat while I know eating that is not ethical, nor good for the planet. And all the village knows that. Actually, probably everybody knows that. With global warming increasing, it has become an unsustainable system. Well, certainly I should change my job. But what else could I do? Another ethic cloth shop? No, nobody is buying new clothes anymore...

Act V – Prasinos, 2105

I think I made a terrible mistake. I recently came across awful news about the villagers of Kokeilu who committed collective suicide recently. It seems it is a consequence of all the dark thoughts they were suffering from recently, struggling with their place in our world. I am convinced this is due to the green update of the NewEarth project. So I urged Theseus to meet urgently. But I fear he is out of his mind as he also has gotten the green brain. Indeed, he was completely indifferent to the death of villagers and refused to abort the green brain program. Worse, he even advocates that the tragedy is helpful for making a sustainable society. It was my idea to implement green consciousness. I thought it would save the world, and now I fear I will lose all the ones I love. I now regret my idea bitterly.

the end :)

Loria