
www.linkedin.com/in/aymeric-marchand-68b21927
Ahoy!
IA ET COMMERCE INTERNATIONAL
26.09.24

Programme et déroulé:

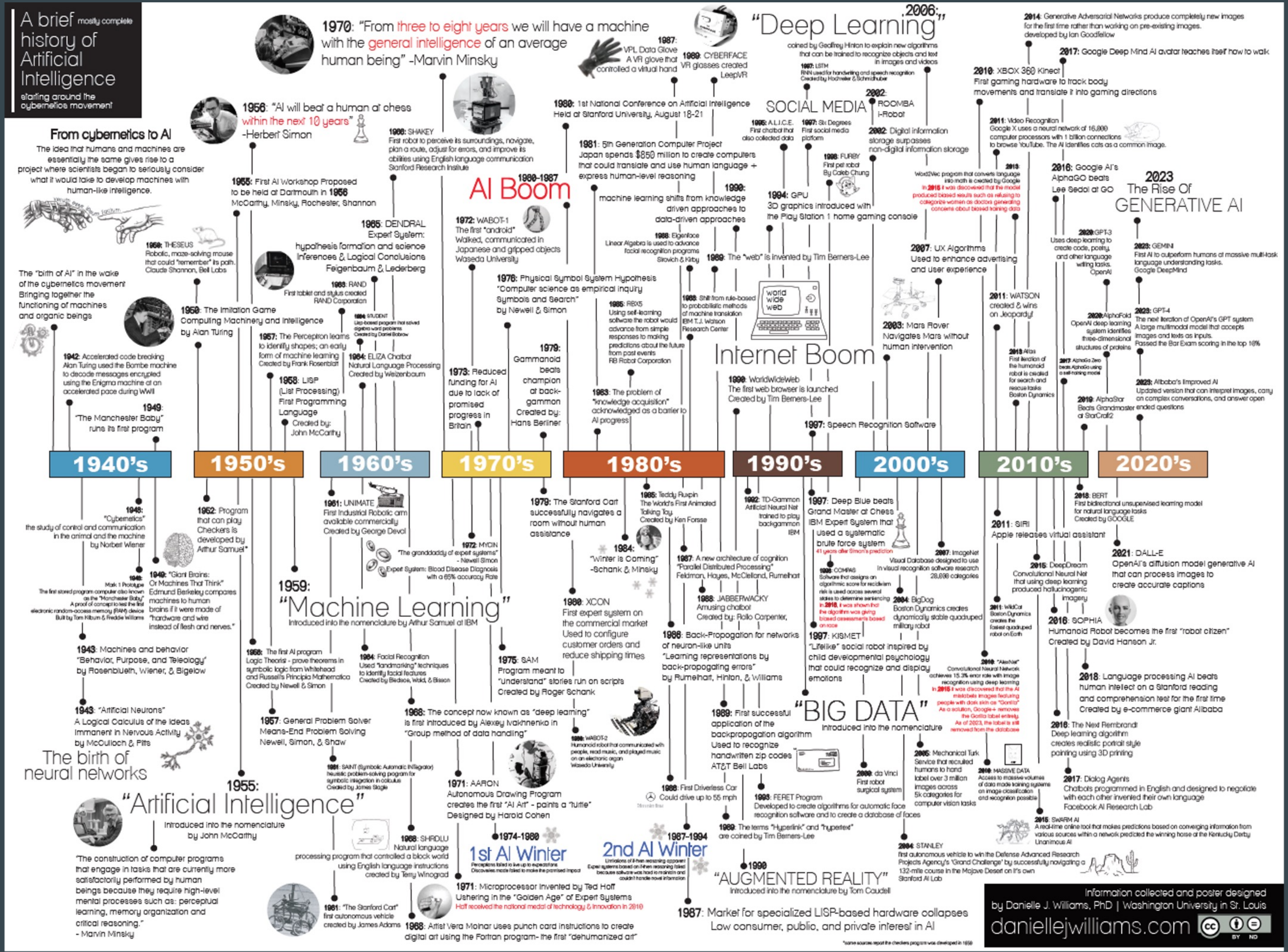
- Objectifs
- Les LLMs et le génératif (Définitions et rapide historique)
- L'IA c'est quoi en septembre 2024? (O1 et inférence)
- Quelques chiffres sur les impacts
- Point sur la régulation
- Quels IAs pour quels usages…(gratuit vs payant)
- Configurations (Artefacts+chatGPT input+output)
- Le prompting, ou l'art du contexte à 3 niveaux
- L'ère de l'agentique
- Les "GPTs" les plus usités en import-export/logistique
- Heygen: Cas d'usage et intégration HB
- Make: un générateur de workflows
- NoteBookLM: Le monde devient plus simple
- Musique, Image et…vidéos, comment augmenter son impact

marchand.aymeric@gmail.com www.linkedin.com/in/aymeric-marchand-68b21927

Intelligence Artificielle

Définitions et rapide historique

•••



A brief mostly complete history of Artificial Intelligence
starting around the cybernetics movement
From cybernetics to AI
The idea that humans and machines are essentially the same gives rise to a project where scientists began to seriously consider what it would take to develop machines with human-like intelligence.
The "birth of AI" in the wake of the cybernetics movement Bringing together the functioning of machines and organic beings
1942: Accelerated code breaking Alan Turing used the Bombe machine to decode messages encrypted using the Enigma machine at an accelerated pace during WWII
1949: "The Manchester Baby" runs its first program
1950: The Imitation Game Computing Machinery and Intelligence by Alan Turing
1950: THESEUS Robotic, maze-solving mouse that could "remember" its path. Claude Shannon, Bell Labs
1956: "AI will beat a human at chess within the next 10 years" -Herbert Simon
1955: First AI Workshop Proposed to be held at Dartmouth in 1956 McCarthy, Minsky, Rochester, Shannon
1957: The Perceptron learns to identify shapes; an early form of machine learning Created by Frank Rosenblatt
1958: LISP (List Processing) First Programming Language Created by: John McCarthy
1963: RAND First tablet and stylus created RAND Corporation
1964: ELIZA Chatbot Natural Language Processing Created by Weizenbaum
1965: DENDRAL Expert System: hypothesis formation and science Inferences & Logical Conclusions Feigenbaum & Lederberg
1966: SHAKEY First robot to perceive its surroundings, navigate, plan a route, adjust for errors, and improve its abilities using English language communication Stanford Research Institute
1970: "From three to eight years we will have a machine with the general intelligence of an average human being" -Marvin Minsky
AI Boom 1980-1987
1972: WABOT-1 The first "android" Walked, communicated in Japanese and gripped objects Waseda University
1973: Reduced funding for AI due to lack of promised progress in Britain
1976: Physical Symbol System Hypothesis "Computer science as empirical inquiry Symbols and Search" by Newell & Simon
1979: Gammanoid beats champion at backgammon Created by: Hans Berliner
1980: 1st National Conference on Artificial Intelligence Held at Stanford University, August 18-21
1981: 5th Generation Computer Project Japan spends $850 million to create computers that could translate and use human language + express human-level reasoning
1983: The problem of "knowledge acquisition" acknowledged as a barrier to AI progress
1985: RBX5 Using self-learning software the robot would advance from simple responses to making predictions about the future from past events RB Robot Corporation
1987: VPL Data Glove A VR glove that controlled a virtual hand
1989: CYBERFACE VR glasses created LeepVR
1988: Shift from rule-based to probabilistic methods of machine translation IBM T.J. Watson Research Center
1989: The "web" is invented by Tim Berners-Lee
1990: machine learning shifts from knowledge driven approaches to data-driven approaches
Internet Boom
1990: WorldWideWeb The first web browser is launched Created by Tim Berners-Lee
1994: GPU 3D graphics introduced with the Play Station 1 home gaming console
1997: Speech Recognition Software
"Deep Learning" 2006
coined by Geoffrey Hinton to explain new algorithms that can be trained to recognize objects and text in images and videos
SOCIAL MEDIA
1995: A.L.I.C.E. First chatbot that also collected data
1997: Six Degrees First social media platform
1998: FURBY First pet robot By Caleb Chung
2002: ROOMBA I-Robot
2002: Digital information storage surpasses non-digital information storage
2003: Mars Rover Navigates Mars without human intervention
2007: UX Algorithms Used to enhance advertising and user experience
2010: XBOX 360 Kinect First gaming hardware to track body movements and translate it into gaming directions
2011: Video Recognition Google X uses a neural network of 16,000 computer processors with 1 billion connections to browse YouTube. The AI identifies cats as a common image.
2011: WATSON created & wins on Jeopardy!
2014: Generative Adversarial Networks produce completely new images for the first time rather than working on pre-existing images. developed by Ian Goodfellow
2017: Google Deep Mind AI avatar teaches itself how to walk
2016: Google AI's AlphaGO beats Lee Sedol at GO
2019: AlphaStar Beats Grandmaster at StarCraft2
2023 The Rise Of GENERATIVE AI
2020: GPT-3 Uses deep learning to create code, poetry, and other language writing tasks. OpenAI
2023: GEMINI First AI to outperform humans at massive multi-task language understanding tasks. Google DeepMind
2023: GPT-4 The next iteration of OpenAI's GPT system A large multimodal model that accepts images and texts as inputs. Passed the Bar Exam scoring in the top 10%
2023: Alibaba's Improved AI Updated version that can interpret images, carry on complex conversations, and answer open ended questions
1940's
1950's
1960's
1970's
1980's
1990's
2000's
2010's
2020's
1948: "Cybernetics" the study of control and communication in the animal and the machine by Norbert Wiener
1949: "Giant Brains: Or Machines That Think" Edmund Berkeley compares machines to human brains if it were made of "hardware and wire instead of flesh and nerves."
1943: Machines and behavior "Behavior, Purpose, and Teleology" by Rosenblueth, Wiener, & Bigelow
1943: "Artificial Neurons" A Logical Calculus of the Ideas Immanent in Nervous Activity by McCulloch & Pitts
The birth of neural networks
1952: Program that can play Checkers is developed by Arthur Samuel
1955: "Artificial Intelligence" introduced into the nomenclature by John McCarthy
"The construction of computer programs that engage in tasks that are currently more satisfactorily performed by human beings because they require high-level mental processes such as: perceptual learning, memory organization and critical reasoning." - Marvin Minsky
1957: General Problem Solver Means-End Problem Solving Newell, Simon, & Shaw
1959: "Machine Learning" introduced into the nomenclature by Arthur Samuel at IBM
1961: UNIMATE First Industrial Robotic arm available commercially Created by George Devol
1972: MYCIN "The granddaddy of expert systems" - Newell Simon Expert System: Blood Disease Diagnosis with a 65% accuracy Rate
1961: "The Stanford Cart" first autonomous vehicle created by James Adams
1968: SHRDLU Natural language processing program that controlled a block world using English language instructions created by Terry Winograd
1968: Artist Vera Molnar uses punch card instructions to create digital art using the Fortran program- the first "dehumanized art"
1968: The concept now known as "deep learning" is first introduced by Alexey Ivakhnenko in "Group method of data handling"
1971: AARON Autonomous Drawing Program creates the first "AI Art" - paints a "turtle" Designed by Harold Cohen
1974-1980 1st AI Winter
1971: Microprocessor invented by Ted Hoff Ushering in the "Golden Age" of Expert Systems
1975: SAM Program meant to "understand" stories run on scripts Created by Roger Schank
1979: The Stanford Cart successfully navigates a room without human assistance
1984: "Winter is Coming" -Schank & Minsky
1980: XCON First expert system on the commercial market Used to configure customer orders and reduce shipping times
1985: Teddy Ruxpin The World's First Animated Talking Toy Created by Ken Forsse
1987: A new architecture of cognition "Parallel Distributed Processing" Feldman, Hayes, McClelland, Rumelhart
1988: JABBERWACKY Amusing chatbot Created by: Rollo Carpenter
1986: Back-Propogation for networks of neuron-like units "Learning representations by back-propogating errors" by Rumelhart, Hinton, & Williams
1986: First Driverless Car Could drive up to 55 mph
1987-1994 2nd AI Winter
1987: Market for specialized LISP-based hardware collapses Low consumer, public, and private interest in AI
1989: First successful application of the backpropagation algorithm Used to recognize handwritten zip codes AT&T Bell Labs
1989: The terms "Hyperlink" and "hypertext" are coined by Tim Berners-Lee
1990 "AUGMENTED REALITY" introduced into the nomenclature by Tom Caudell
"BIG DATA" introduced into the nomenclature
1992: TD-Gammon Artificial Neural Net trained to play backgammon IBM
1997: Deep Blue beats Grand Master at Chess IBM Expert System that used a systematic brute force system
1997: KISMET "Lifelike" social robot inspired by child developmental psychology that could recognize and display emotions
1993: FERET Program Developed to create algorithms for automatic face recognition software and to create a database of faces
2000: da Vinci First robot surgical system
2004: STANLEY first autonomous vehicle to win the Defense Advanced Research Projects Agency's 'Grand Challenge' by successfully navigating a 132-mile course in the Mojave Desert on it's own Stanford AI Lab
2004: BigDog Boston Dynamics creates dynamically stable quadruped military robot
2005: Mechanical Turk Service that recruited humans to hand label over 3 million images across 5k categories for computer vision tasks
2007: ImageNet Visual Database designed to use in visual recognition software research 20,000 categories
2011: SIRI Apple releases virtual assistant
2015: DeepDream Convolutional Neural Net that using deep learning produced hallucinogenic imagery
2016: SOPHIA Humanoid Robot becomes the first "robot citizen" Created by David Hanson Jr.
2018: BERT First bidirectional unsupervised learning model for natural language tasks Created by GOOGLE
2018: Language processing AI beats human intellect on a Stanford reading and comprehension test for the first time Created by e-commerce giant Alibaba
2016: The Next Rembrandt Deep learning algorithm creates realistic portrait style painting using 3D printing
2017: Dialog Agents Chatbots programmed in English and designed to negotiate with each other invented their own language Facebook AI Research Lab
2021: DALL-E OpenAI's diffusion model generative AI that can process images to create accurate captions
Information collected and poster designed by Danielle J. Williams, PhD | Washington University in St. Louis
daniellejwilliams.com

Ni intelligente...ni artificielle?

GEN AI ou Intelligence Artificielle Générative

Quelques acronymes...

NLP/ un “Token”

Natural Language Processing pour “traitement par la langue naturelle”

Token=Jeton qui correspond à 0,75% d’un mot, monnaie transactionnelle qui indique la taille de la “fenêtre de contexte”

ML /DL/ NN

Machine Learning pour “apprentissage machine”

Deep Learning pour “apprentissage profond”

Neural Network pour “Réseau Neuronal”

LLM chatbot (GPT)

Large language Model pour “Grand modèle de langage” (circa 2018)

Tels que chatGPT, Claude, Gemini, Copilot, Grok, Mistral, Llama..

Impact: Quelques chiffres...

Les responsables marketing s'accordent à dire que, bien que l'IA soit encore en pleine évolution, les équipes peuvent l'exploiter dès à présent pour accroître le retour sur investissement. Les solutions logicielles d'IA sont abordables, évolutives et personnalisables, offrant aux équipes des capacités d'analyse des données.

68%
des responsables marketing ont fait état d'un retour sur investissement en matière d'IA.

45%
déclarent que les outils d'IA rendent les employés plus productifs.

48%
des responsables marketing ont investi dans des outils d'IA pour leurs équipes.

Source: Hubspot AI report été 2024 (panel de 1062 marketeurs US dont 62 en B2C, 40% en B2B)

300 by 2025 vs 100...

Septembre 2024: 100 QI?
“O1 preview”

Cutoff, données et inférence...Vision et advanced voice mode (US only...this week!)

Régulation

Japon, Europe, Californie, Etats-Unis et ...Christine?

https://x.com/TheDailyShow/status/1838672363203997941

Multimodalité et usages

chatGPT 4o le plus complet + agentique (GPTs)+ “mémoire” et bientôt “vision”.

Gemini la plus grande fenêtre de contexte (1,5 million de Tokens)peut analyser une image, résumer une vidéo Youtube

Claude: le plus avancé en raisonnement, plus littéraire et plus francophone+ “artefacts” +”projects”

Copilot: Microsoft, en cours de déploiement sur toute la suite Office (génération+prompting)

Claude

Choose your plan

You must have a work domain to select the Team plan.

Pro

€18 + VAT / month

- Level up your Claude usage with 5x more usage versus Free plan
- Access to Claude 3 Haiku, our fastest model, and Claude 3 Opus
- Create Projects to work with Claude around a set of docs, code, or files
- Priority access during high-traffic periods
- Early access to new features

Subscribe to Pro

Team

€23 + VAT / month*

Per member, 5 minimum

- Everything in Pro
- Higher usage limits versus Pro plan
- Share and discover chats from teammates
- Central billing and administration

Create Team Account

*Price billed annually; €28 + VAT / month if billed monthly

You will be charged 20% VAT, the standard rate in France, at checkout.

Free

For individuals just getting started with ChatGPT

- ✓ Assistance with writing, problem solving and more
- ✓ Access to GPT-4o mini
- ✓ Limited access to GPT-4o
- ✓ Limited access to data analysis, file uploads, vision, web browsing, and image generation
- ✓ Use custom GPTs

$0 / month

Start now

Plus

For individuals looking to amplify their productivity

- ✓ Access to OpenAI o1-preview, OpenAI o1-mini
- ✓ Access to GPT-4, GPT-4o, GPT-4o mini
- ✓ Up to 5x more messages for GPT-4o
- ✓ Access to data analysis, file uploads, vision, and web browsing
- ✓ Access to Advanced Voice Mode
- ✓ DALL·E image generation
- ✓ Create and use custom GPTs
- ✓ Early access to new features

$20 / month

Start now Limits apply >

Team

For fast-moving teams and organizations ready to supercharge work

- ✓ Everything included in Plus
- ✓ Unlimited access to GPT-4o mini and higher message limits on GPT-4, GPT-4o, and tools like DALL·E, web browsing, data analysis, and more
- ✓ Create and share GPTs with your workspace
- ✓ Admin console for workspace management
- ✓ Team data excluded from training by default. Learn more

$25 per user / month billed annually

$30 per user / month billed monthly

Start now

Enterprise

For global companies looking to enable their workforce with AI

- ✓ Everything included in Team
- ✓ Unlimited, high speed access to GPT-4, GPT-4o, GPT-4o mini, and tools like DALL·E, web browsing, data analysis, and more
- ✓ Expanded context window for longer inputs
- ✓ Enterprise data excluded from training by default & custom data retention windows. Learn more
- ✓ Admin controls, domain verification, and analytics
- ✓ Enhanced support & ongoing account management

Contact sales

Config chatGPT : 1Customs instructions + 2Preferred Output

1: *“Je suis consultante en import-export et je suis basée à Saint-Malo en Bretagne, France. Mes clients sont principalement situés dans la zone Euro, et majoritairement en Allemagne et en Pologne....”*

2: *“Je souhaite que les réponses soient adaptées à une clientèle allemande, en tenant compte des particularités interculturelles ainsi que des réglementations dans le Baden-Wurtemberg...”*

Context Is King...3 niveaux de prompting

Niveau 1	• Zero-shot • Question directe sans contexte
Niveau 2	• Few shot • Question et quelques exemples de réponse
Niveau 3	• CoT Chain Of Thought • Instructions complètes de démarche logique...

1. **Comment les cabinets d'avocats en commerce international peuvent-ils optimiser leurs processus pour accélérer les transactions juridiques?**
2. **Quelles stratégies bancaires innovantes peuvent aider les entreprises internationales en Bretagne à réduire les coûts et augmenter l'efficacité?**
3. **Comment automatiser les procédures douanières pour minimiser les délais et les erreurs dans le dédouanement des marchandises?**
4. **Quelles sont les meilleures pratiques pour optimiser la chaîne logistique et réduire les coûts de transport?**
5. **Comment les entreprises peuvent-elles utiliser les accords commerciaux internationaux pour améliorer leur compétitivité?**
6. **Quelles technologies peuvent améliorer la gestion des risques dans le secteur bancaire pour les transactions internationales?**
7. **Comment intégrer l'intelligence artificielle dans la gestion de la chaîne d'approvisionnement pour augmenter la productivité?**
8. **Quelles formations sont essentielles pour le personnel des douanes afin de gérer efficacement les nouvelles réglementations?**
9. **Comment les cabinets juridiques peuvent-ils offrir des services plus efficaces grâce à la digitalisation?**
10. **Quelles sont les méthodes pour améliorer la communication entre les différents acteurs de la logistique internationale?**
11. **Comment les banques peuvent-elles sécuriser davantage les transactions en ligne pour les entreprises internationales?**

12. **Quelles stratégies peuvent être mises en place pour réduire les coûts liés aux procédures douanières?**

13. **Comment optimiser la gestion des stocks grâce à une meilleure prévision de la demande dans la chaîne logistique?**

14. **Quelles sont les opportunités offertes par les fintechs pour les opérations bancaires internationales?**

15. **Comment les entreprises peuvent-elles naviguer efficacement dans les réglementations douanières complexes?**

16. **Quelles solutions logistiques innovantes peuvent réduire les délais de livraison à l'international?**

17. **Comment les cabinets d'avocats peuvent-ils aider les entreprises à se conformer aux lois internationales tout en réduisant les coûts?**

18. **Quelles technologies émergentes peuvent transformer la gestion de la chaîne d'approvisionnement?**

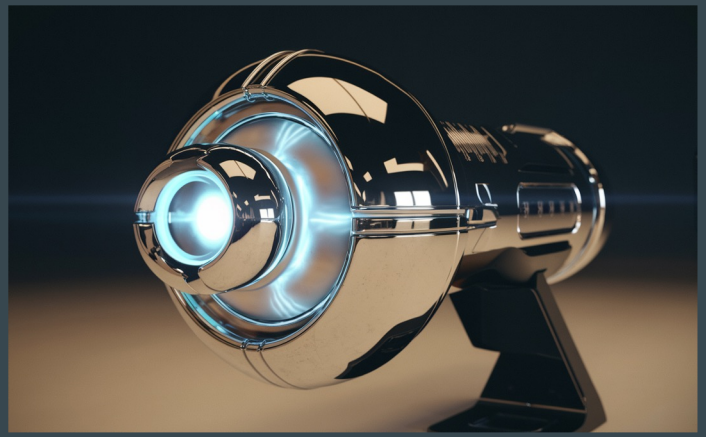
19. **Comment les banques peuvent-elles soutenir les entreprises dans la gestion des risques liés aux taux de change?**

20. **Quelles stratégies peuvent être employées pour améliorer la durabilité environnementale dans la logistique sans affecter la productivité?**

https://chatgpt.com/share/66f491b5-bda8-8001-8adc-51ea903d9979


AGENTIQUE

Explorer des outils ultra-personnalisés...ou bien mieux encore...



....les créer!

agent.ai

Sign In Sign Up

The Professional Network For AI Agents

A marketplace and professional network for AI agents and the people who love them.
Discover, connect with and hire AI agents to do useful things.

Sign Up For Free

Search 41 agents...

Featured Agents

Company Research Agent
By @dharmesh

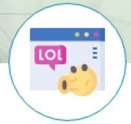
1 credit per execution
25.2K executions

Hire

Flux Image Generator
By @dharmesh

1 credit per execution
21.1K executions

Hire



Meme Maker
By @dharmesh

1 credit per execution
21.1K executions

Hire

https://www.youtube.com/watch?v=yLIJwqdG8eY&pp=ygUfbGVvIGRpY2FwcmlvIGRlZXBmYWtlIHVuIHNwZWVjaA%3D%3D

DEEPFAKES et autres dérives avec la combinaison des outils...

Agents and avatars: HeyGen!

https://www.heygen.com/

MAKE.COM le générateur de Workflows...champion incontesté de l’automatisation

https://www.make.com/en

Toolbox

LLMs: chatGPT, Claude, Gemini, Copilot, Mistral

Agents: GPTs, agent.ai

Avatar: Heygen

Illustrer un produit, animer son image ensuite:
Leonardo ai app
RunwayML
Kling AI

Générer chansons: Suno AI, Udio, ElevenLabs (2025?)
Clonage de voix, génération de bruits d'ambience: ElevenLabs

Tiens, encore un podcast...?

NotebookLM by Google,
ou comment tout est
devenu digeste...!

marchand.aymeric@gmail.com
a.marchand3@esg.fr

That ship has sailed...?

IA ET COMMERCE INTERNATIONAL

26.09.24