hUMaN(AI)ZE

An open AI approach to BJARKE INGELS GROUP

by: AGUNINA Ziad

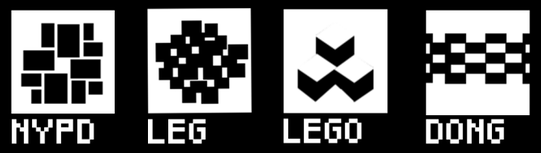
BIG

ie UNIVERSITY
SCHOOL OF ARCHITECTURE & DESIGN

WORKS

Bjarke Ingels' projects showcase a mix of bold design, functionality, and sustainability. Through prototyping, he redefines architectural norms by pushing boundaries and experimenting with new forms, materials, and structures. His works can be classified as the following:

■ Diagonals and mountain metaphor



■Stepped pixels

■Breaking of the form

■Bending of the mass

■Slit and holes opening to mass

■Helical ramps and spiral tendencies

A "BIG" NET

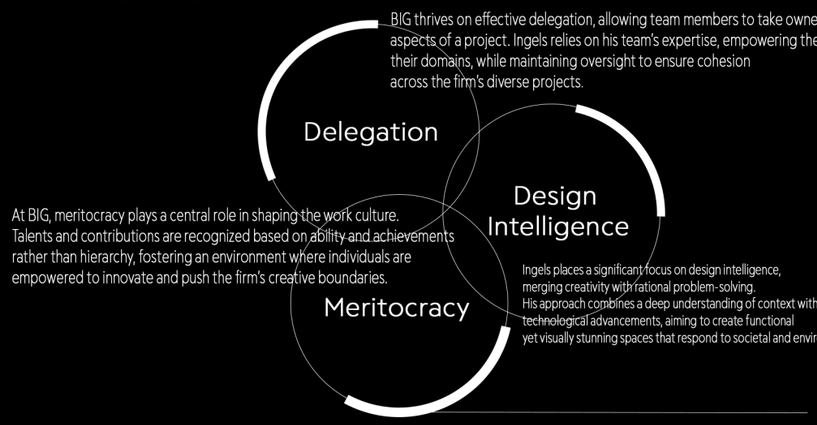
CLIENTS

Bjarke Ingels Group (BIG) has consistently partnered with some of the most influential clients in the world, forging collaborations that have redefined architecture and urbanism. These partnerships include tech giants like :

■ETHICS + CULTURE

"YES IS MORE"

"....DARWINIAN APPROACH"



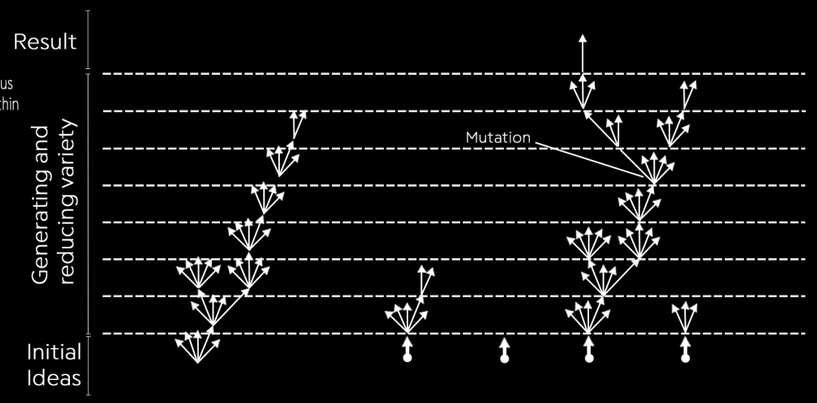
BIG thrives on effective delegation, allowing team members to take ownership of various aspects of a project. Ingels relies on his team's expertise, empowering them to lead within their domains, while maintaining oversight to ensure cohesion across the firm's diverse projects.

At BIG, meritocracy plays a central role in shaping the work culture. Talents and contributions are recognized based on ability and achievements rather than hierarchy, fostering an environment where individuals are empowered to innovate and push the firm's creative boundaries.

Ingels places a significant focus on design intelligence, merging creativity with rational problem-solving. His approach combines a deep understanding of context with technological advancements, aiming to create functional yet visually stunning spaces that respond to societal and environmental needs.

"HEDONISTIC SUSTAINABILITY"

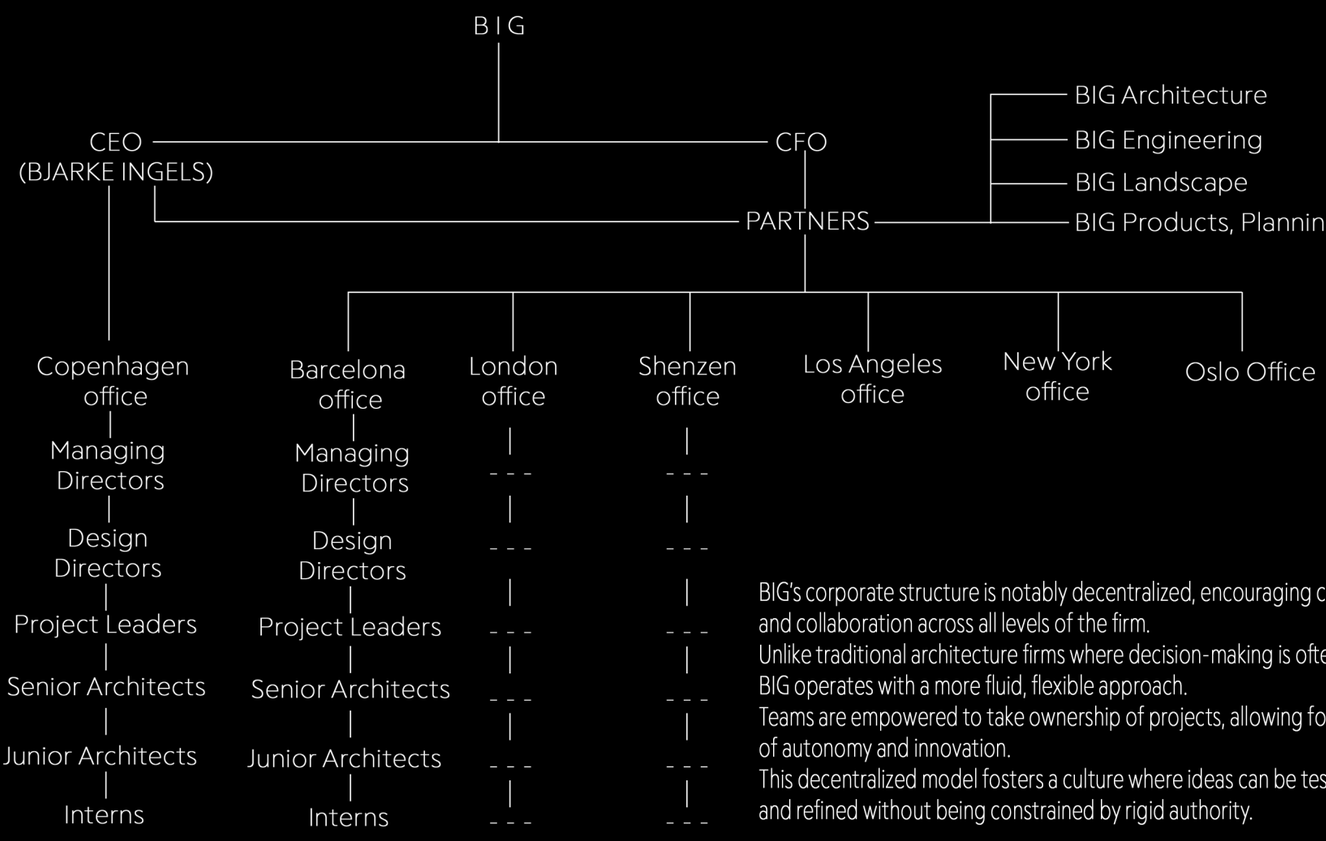
■METHODOLOGY



Ingels employs a Darwinian method in his approach to architecture, where designs evolve through a process of adaptation to their environment.
He believes in trial, error, and refinement, letting ideas compete and adapt to their surroundings, leading to the most resilient and functional design solutions.

"YES IS MORE!"

BIG'S CORPORATE STRUCTURE



BIG's corporate structure is notably decentralized, encouraging creativity and collaboration across all levels of the firm.
Unlike traditional architecture firms where decision-making is often hierarchical, BIG operates with a more fluid, flexible approach.
Teams are empowered to take ownership of projects, allowing for a high degree of autonomy and innovation.
This decentralized model fosters a culture where ideas can be tested, adapted, and refined without being constrained by rigid authority.

COMMUNICATION STRATEGY

Bjarke Ingels' approachable demeanor and engaging smile have significantly influenced BIG's communication strategy, making complex architectural concepts more accessible and relatable to a broader audience. His openness and enthusiasm have been instrumental in demystifying architecture, fostering a deeper connection between the firm and the public.

PERSONALITY - DRIVEN MARKETING

... STORYTELLING

BIG employs storytelling as a central element in their projects, transforming architectural designs into compelling narratives that resonate with clients and the public. This approach not only conveys the functional aspects of their designs but also highlights the emotional and experiential qualities of the spaces they create.

FOSTERING CONNECTIONS

The firm fosters connections by engaging with diverse audiences through various platforms, including public lectures, interactive exhibitions, and digital media. This engagement cultivates a community around their projects, encouraging dialogue and feedback that enrich the design process.

... DIAGRAMMING & MERGE VIDEO CONTENT

BIG's innovative use of diagrams, videos, and comic content serves as a powerful communication tool, simplifying complex architectural ideas and making them more digestible. This method enhances understanding and appreciation of their designs, setting BIG apart from traditional firms that may rely solely on technical drawings and models.

WINS

Ingels has won an incredible amount of awards. Among the most relevant there are the Nykredit Architecture Prize, which is the largest Danish architecture prize;
European Prize for Architecture, given annually to any living architect whose built work exemplifies the highest ideals of European civilization and embodies the vision and for the social and physical environment (The European Center, s.d.), the Dreyer Honorary Award, the Danish Crown Prince Couple's Culture Prize, the French Academy of Architecture Prix Delarue Award, 40 Under 40 Award, and The National German Sustainability Award Honor Award.
Although Ingels did not receive the most important award of all (the Pritzker), the quantity and constance with which the architect is recognized with prizes, definitely make up for the lower relevance

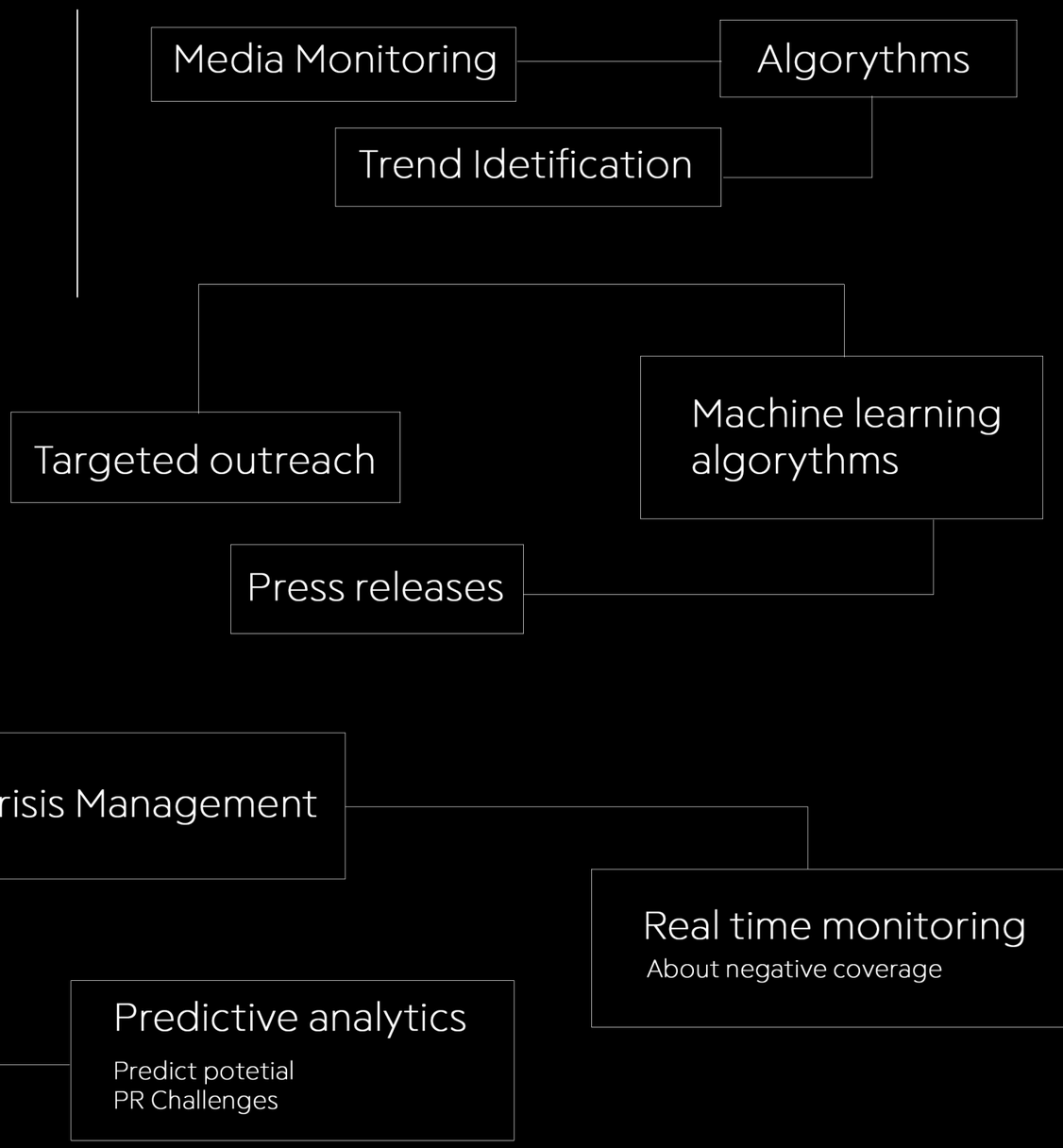
HOW IS AI IMPACTING THE ARCHITECTURE WORLD?

To simplify our study we'll start by examining is AI shaping the future of management in big architectural firms, then we will move on to the design part, discussin both design stages and scotrs as follows:

- Firm processus
  - Public relations
  - Business Development
  - Financial management
- Design
  - Design process
  - Design factors

Firm Processus

1.1 Public relations



2.2 Business Develoment

CB Insights

Emerging Markets Predictions

Analyse real estate & predict emerging markets

Quid AI

Salesforce Einstein

Hubspot AI

Clients relationship management

Tailor proposals & deal closures

LinkedIn Sales

Networking & partnerships

Find potential clients, developers , & Investors

Navigator AI

Clara AI

Global Meeting coordination

Suggest optimal meeting times

Clockwise

Otter AI

DeepL

Real time transcriptions & translation

Microsoft Translator

Summerise key actions, points & recucrring themes

Fireflies AI

2.3 Financial Management

Expensify

Automated financial processes

Scan reciepts & generates exports

Ramp AI

Float

Analytics for financial planning

Cash flow forecasting

Planful

Alphasense

Market trends analysis

Quid

Design

1.1. Design Stages:

AI plays a crucial role in various design stages by enhancing decision-making, optimizing workflows, and ensuring accuracy. Below are key AI patterns and their applications in different phases of the design process.

Hypersonalization Pattern
This pattern provides detailed information about the project, including similar case studies, user preferences, customer needs, and available technologies. It is primarily used in the pre-design stage, assisting in defining the design problem and documenting relevant data and information.

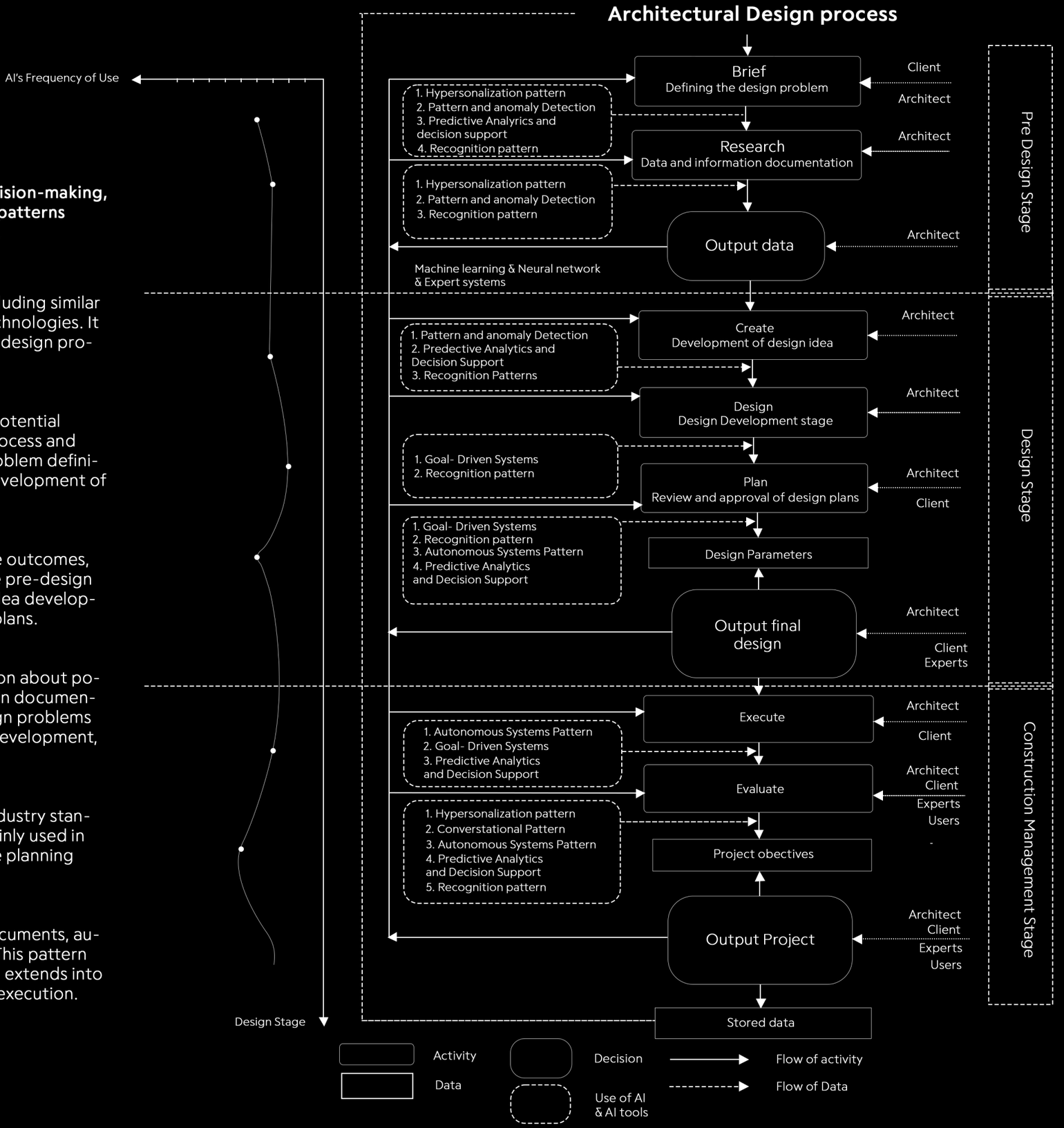
Pattern & Anomaly Detection
AI identifies relevant references, recurring design patterns, and potential conflicts in architectural elements. This helps refine the design process and ensure accuracy. It is applied in both the pre-design stage for problem definition and data documentation and the design stage during the development of design ideas.

Predictive Analytics and Decision Support
AI-driven data models analyze project parameters, predict future outcomes, and assist in making informed design decisions. This is used in the pre-design stage to define the design problem and in the design stage for idea development and planning, including the review and approval of design plans.

Recognition Pattern
Through natural language processing (NLP), AI gathers information about potential solutions, simulates multiple design alternatives, and aids in documentation. This is beneficial in the pre-design stage for defining design problems and data documentation, as well as in the design stage for idea development, design refinement, and planning approvals.

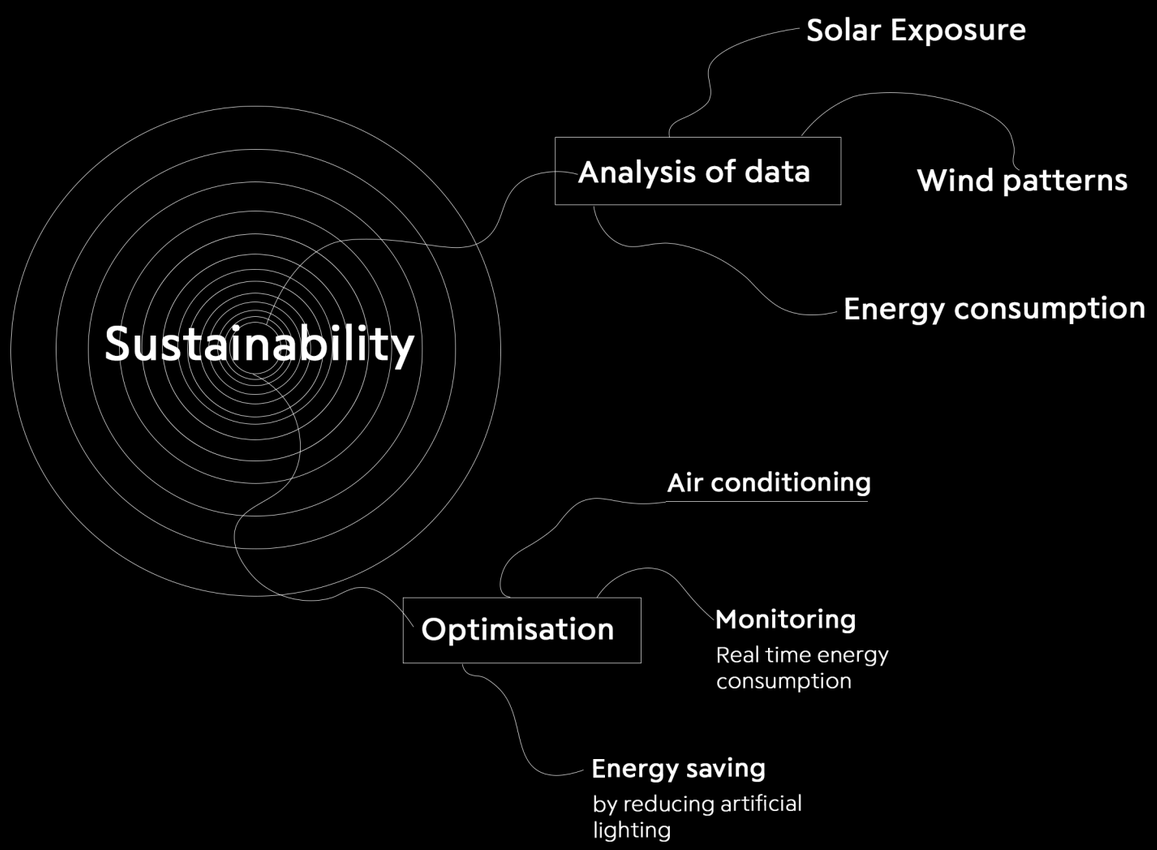
Goal-Driven Systems
AI ensures that design proposals align with required goals and industry standards by analyzing past data and performance metrics. This is mainly used in the design stage, specifically during design development and the planning review process.

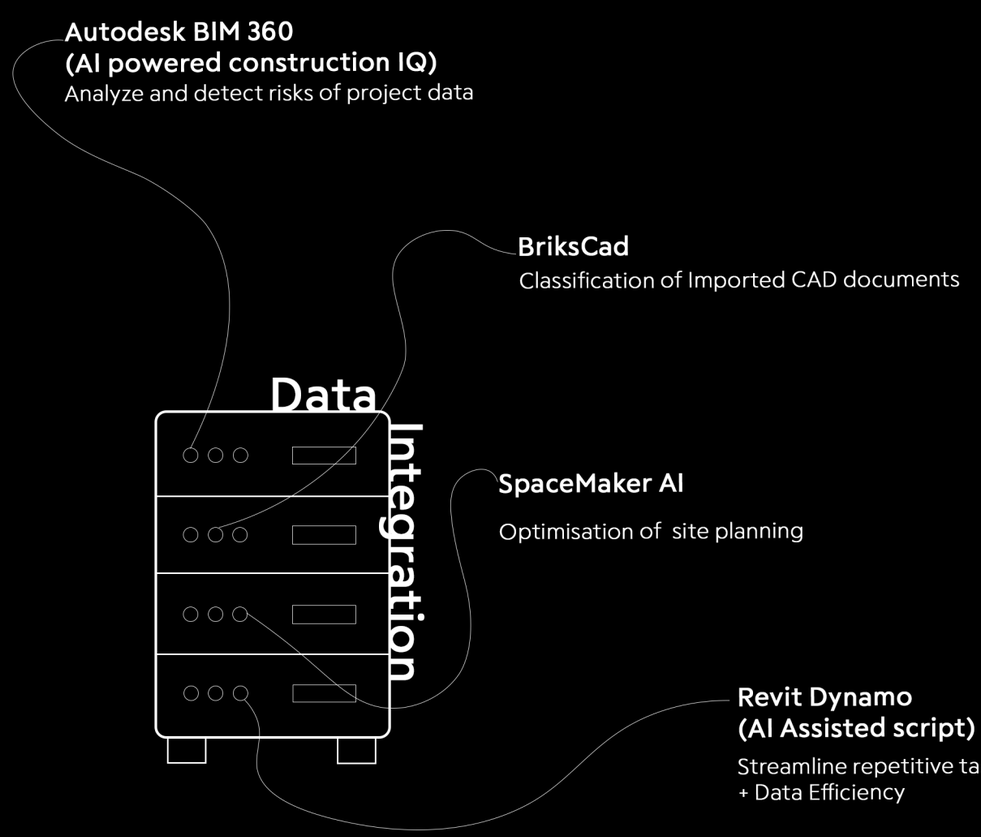
Autonomous Systems Pattern
AI-powered autonomous systems streamline finalizing design documents, automate construction monitoring, and detect errors in real-time. This pattern plays a crucial role in the design stage for planning approvals and extends into the construction management stage, particularly during project execution.

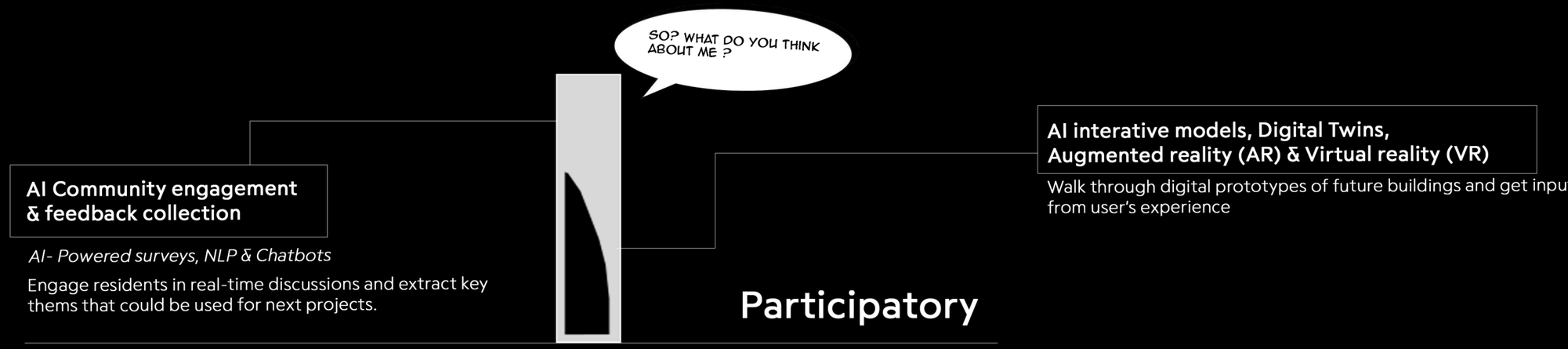


Design

1.2. Design Factors:







BIG X AI: A SWOT ANALYSIS :

Strengths

Enhancing Prototyping & Design Exploration

BIG is known for its experimental and conceptual architecture, where each project has a distinct identity.
AI can accelerate the prototyping process, allowing for rapid iterations and real-time testing of different design philosophies.

Improving Coordination Across Global Offices

AI tools like BIM automation, real-time data sharing, and machine learning models optimize project coordination across time zones.
AI-based language processing tools can bridge communication gaps between offices.

Streamlined workflows, reducing time-consuming manual tasks

Automating design analysis ensures fewer errors in complex technical aspects
AI can predict and prevent design conflicts, making the process smoother and more cost-effective.

Weaknesses

Risk of Data Loss & System Failures
There's a risk that AI's algorithmic approach may struggle to fully capture BIG's intuitive, emotional, and formgiving approaches leading to generic and soulless designs.

Transition to AI & Adaptability
AI-driven tools requires time and training, which may slow down productivity during the adaptation phase.
Past experiences, like firms shifting from ArchiCAD to Revit, show that resistance to new technology can hinder efficiency, requiring structured onboarding and continuous upskilling.

Risk of Data Loss & System Failures
Without proper backup systems, AI failures could lead to delays, cost overruns, and operational setbacks.

Opportunities

Advanced Media Monitoring
Will allow BIG to track real-time industry trends, public opinion, and competitor activities in order to adapt quickly, refine their strategies.

Attracting Investors and Like-minded Collaborators
AI will facilitate to BIG more effective networking by identifying potential collaborators, investors, and clients who align with the firm's vision.

Global Expansion and virtual growth
AI will assist BIG in virtually expanding their headquarters operations into new global markets by automating key business processes, from project management to communication.

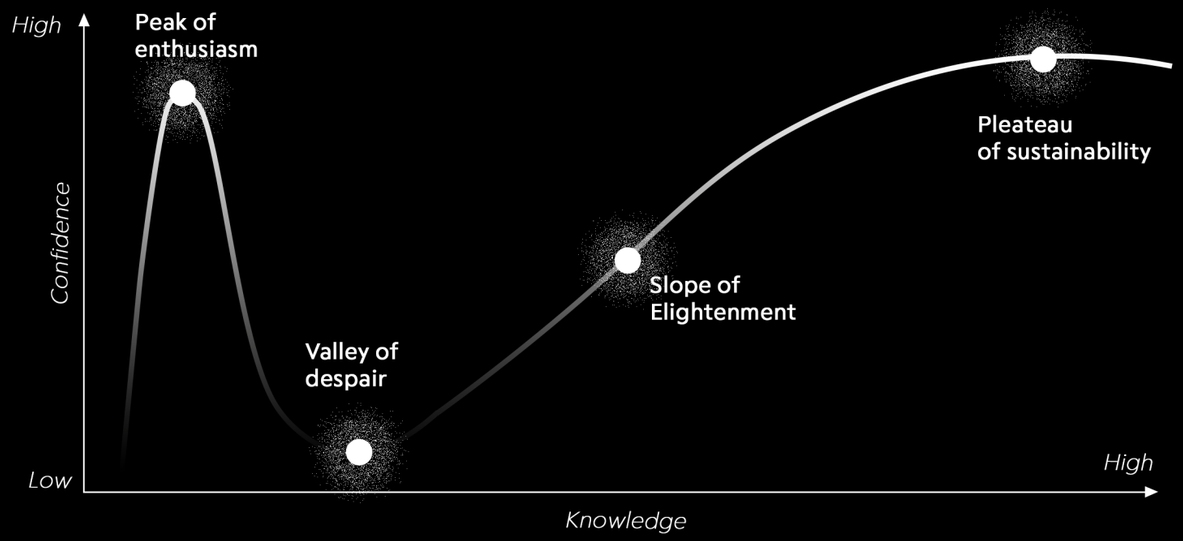
Threats

Exposure to Criticism from Anti-AI Advocates:
BIG may face backlash from critics who believe AI threatens the creative integrity of their process.

Risks of Collaborative Projects with Non AI-Using Firms:
When collaborating with firms that adopt AI differently or more conservatively, there's a risk that the integration of technology could become a point of contention. Differing approaches could lead to conflicts or mismatched expectations.

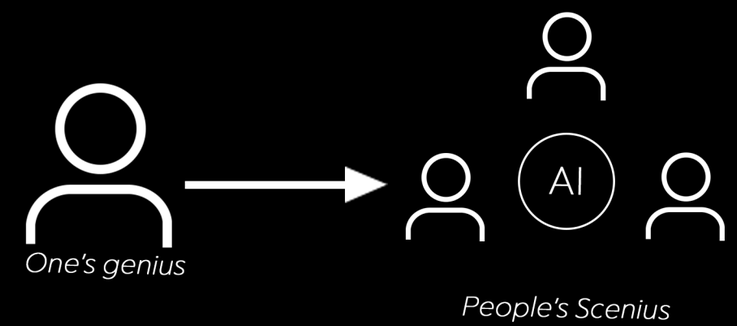
HUMAN (AI) ZE WITH BIG:

1.1. The Dunning Kruger Effect:

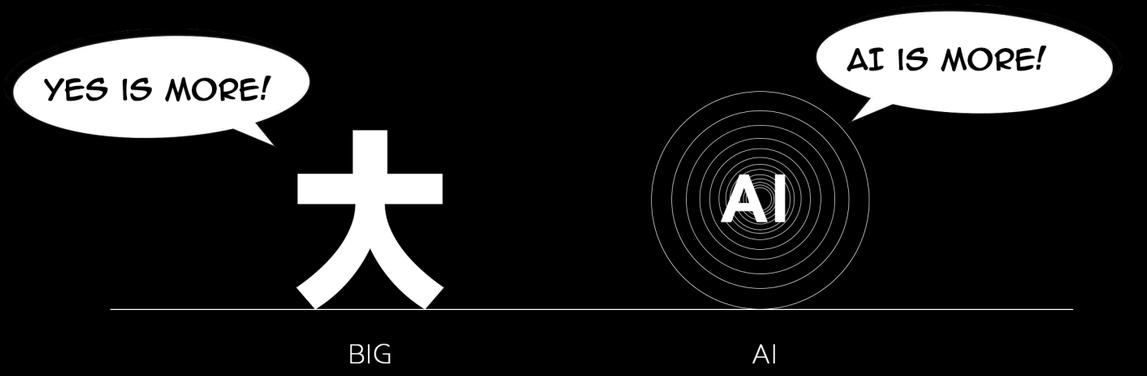


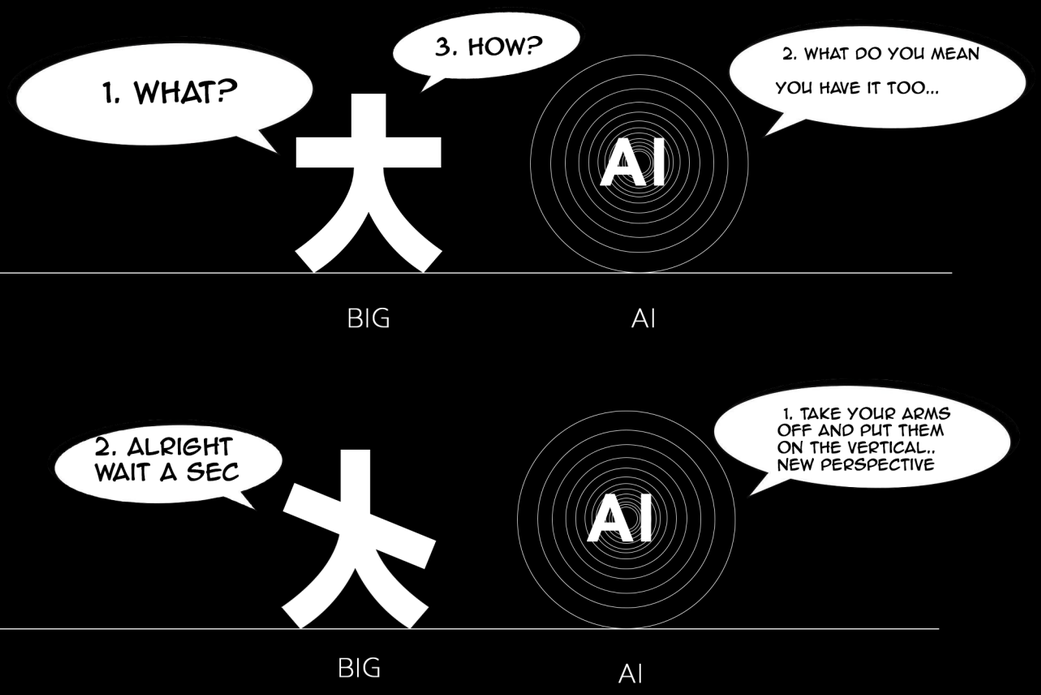
Implementing AI in BIG is a no-brainer, as the firm has enough resources to do so and excel at it.
What should really be challenging is how the staff will adapt to it.
In large corporate changes like this, we often focus on the technical aspects while forgetting that these tools were made for us to work with. The real focus should be on the people working with these new tools. That's why my approach to AI at BIG should be as human-centered as possible. The Dunning-Kruger effect could be well employed in this scenario,
as it helps explain how a person deals with change, and in this case, it's very much legitimate.
Before staff are introduced to these tools, they should FIRST be introduced to how to handle change within a corporate architectural framework.
This will ensure everyone is on the same level of understanding and adaptability.

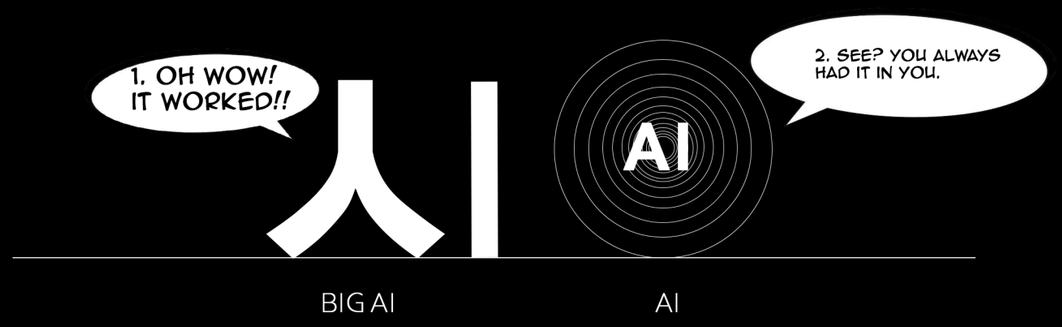
1.2. Bian Eno's Scenius:



In the context of architecture, AI tools can act as collaborative partners that enhance the creative process. Instead of merely automating tasks, AI could facilitate new ways of designing, problem-solving, and iterating by offering suggestions, generating alternative solutions, and assisting in the exploration of ideas. The "scenius" here would come from the interaction between humans and AI, where each influences the other and creates something greater than the sum of individual efforts.







By: Ziad Agunina

BIG

ie UNIVERSITY
SCHOOL OF ARCHITECTURE & DESIGN