

How Will We Meet AI in Virtual World

The way you understand AI

Decides how will you apply AI: slave or friends, tools or entertainments

From GTA V to West World

We believe the next generation of gaming experiences, especially for RPG games, will be more open-world, more immersive, and more intelligent. The interaction between human players and the virtual world will be more dynamic and multiplex. However, with traditional technology and workflow, all content needs to be manually created, which requires massive time and cost. With Chaos Box, we can help designers create a truly open-world and intelligent gaming experience, just like the virtual version of the West World.



Products

Chaos Box

An AI engine that uses the Chaos Box algorithm to analyze real-time player inputs, dynamically generate NPC responses and new storylines based on Deep Reinforcement Learning. It can support massively emergent behaviors for AIs and NPCs in games without writing even a single script.

Prototype

This video shows an initial prototype of a simple bank heist game. The player acts as one of the robbers, and all the other NPCs are powered by our Chaos Box algorithm. Without any preset scripts, the NPCs explore every authentic possibility to enable a truly intelligent gaming experience autonomously.

watch video 



https://drive.google.com/file/d/1XvawYtZG-q9DfqzcQYngMW_Fu8te4W3W/view?usp=sharing

Chaos Box Features

1

Dynamic, personalized quests and encounters

2

Intelligent, adaptive NPCs, creatures, and environments

3

Realistic AI players (“bots”)

others

- Automated game testing
- Self-balancing In-game economy
- Tailored IAP experience
- Smart animation/sound generation

Examples

1

Dynamic, personalized quests and encounters

e.g. SWTOR, WOW, FF XIV

Challenges	With Chaos Box	Benefits
All story branches are hand-scripted: significant time and resources are required to develop or update, making it difficult to scale	Unlimited story branches can be generated automatically based on the main storyline and customized parameters	 Development time and resources
Campaign has limited choices and endings	Endless variations abound - no two stories and paths are the same	 Novel gameplay
Decision points are disruptive to gameplay (i.e., players have to pause and select different options in drop-down)	Broader range of player inputs are incorporated. No more drop-down list; seamless progression	 Enhanced player experience

Examples

2

Intelligent, adaptive NPCs, creatures, and environments

e.g. ACNH, CyberPunk 2077, GTA V, RDR 2, The Sims 4



Challenges

NPC dialogues and behavior are individually designed: significant time and resources are required to add/update each NPC

NPCs have repetitive, predictable dialogues and actions (NPC output)

NPC actions are triggered by preset scenarios or specific player actions (NPC input)

With Chaos Box

Chaos Box algorithm generates NPC dialogues and interactions dynamically. Multiple characters can be created with minor adjustments in parameters

NPCs are more intelligent. Players can enjoy a more authentic, stimulating roleplaying experience

NPCs react to a broader range of game state changes. Players have more freedom in how they interact with NPCs

Benefits



Development time and resources



Enhanced player experience



Enhanced player experience

Examples

3

Realistic AI players (“bots”)

e.g. Seed, The Legend of Mir 2, WOW

Challenges

Unnatural, predictable behavior is easily identified by players and breaks the illusion

Limited sophistication cannot process a broad range of playstyles, strategies and difficulty levels

Limited variability makes it difficult to introduce AI players in scale

With Chaos Box

Dynamic and intelligent behavior patterns are enabled

AI players self-evolve based on different players and create personalized experiences

Large number of AI players with sufficient variability are supported using different parameter settings

Benefits



Enhanced player experience



Enhanced player experience



Enhanced player experience



Building simulator: we are in a battery



Simulator

Interaction

Vision

- Logic:**
1. Stream of Consciousness
 2. Analytic Philosophy
 3. Religion
 4. ...

How we create value for customers

We help our customers build interactive contents by customization or SDK. Then our Game Cloud will provide various abilities to generate dynamic content in real-time during the operation stage of the game. The contents, including all the NPCs, creatures and environments, will make personalized and intelligent responses to different interactions (text, voice, action, etc.) through the decision-making model trained in our Game Cloud, to provide a different and fascinating story experience for players.

Development

Tool for building interactive content

1. New experience
2. Efficiency improvement
3. Cost reduction

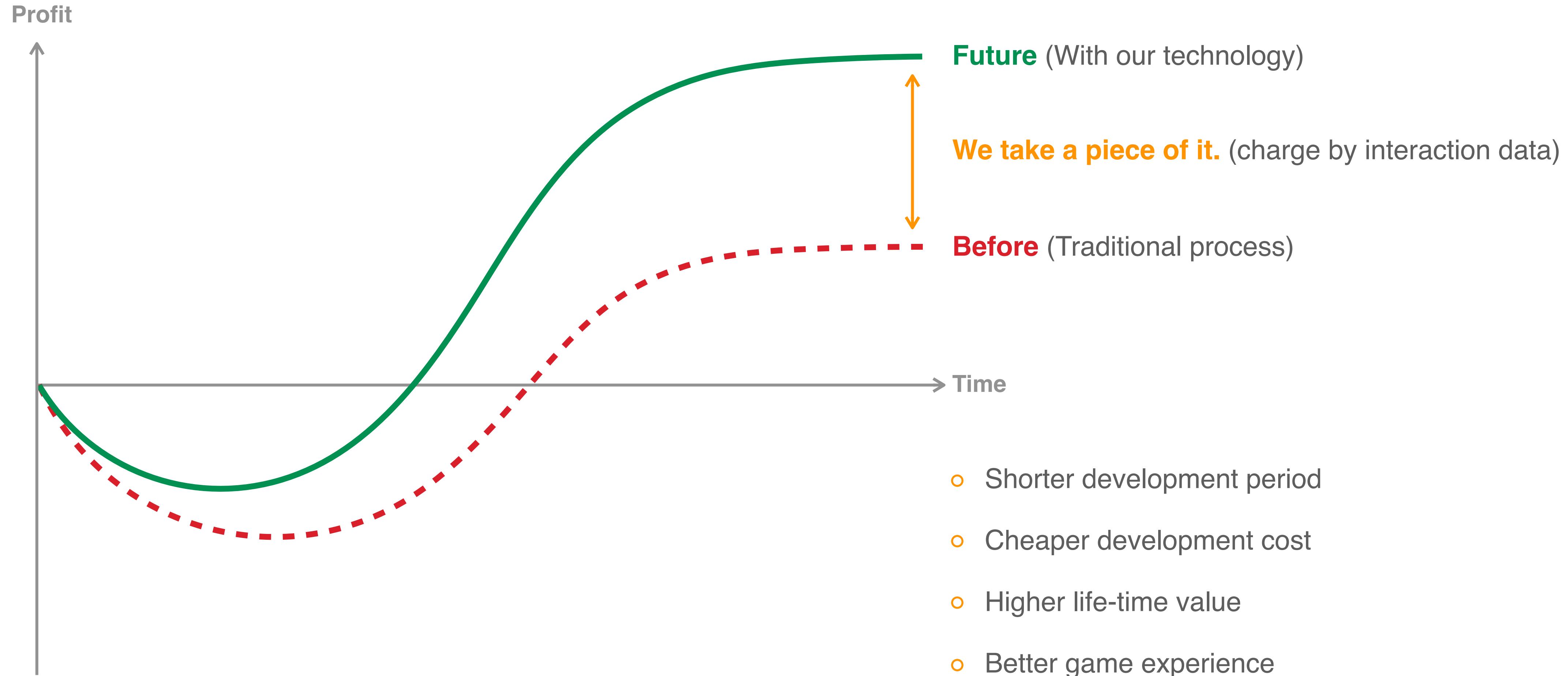
Operation



Cloud for sustaining the interactive system

1. On-demand service
2. Real-time iteration
3. Healthier cost structure

Wonderful game experience with win-win business model



Stats of “The Extractors” in the first 24 hours after release

209,259

Total interaction times

752

Total applicants

11,000

PV of WeChat article

3,244

Total rounds

408

Total invited users

8

Average rounds per user

