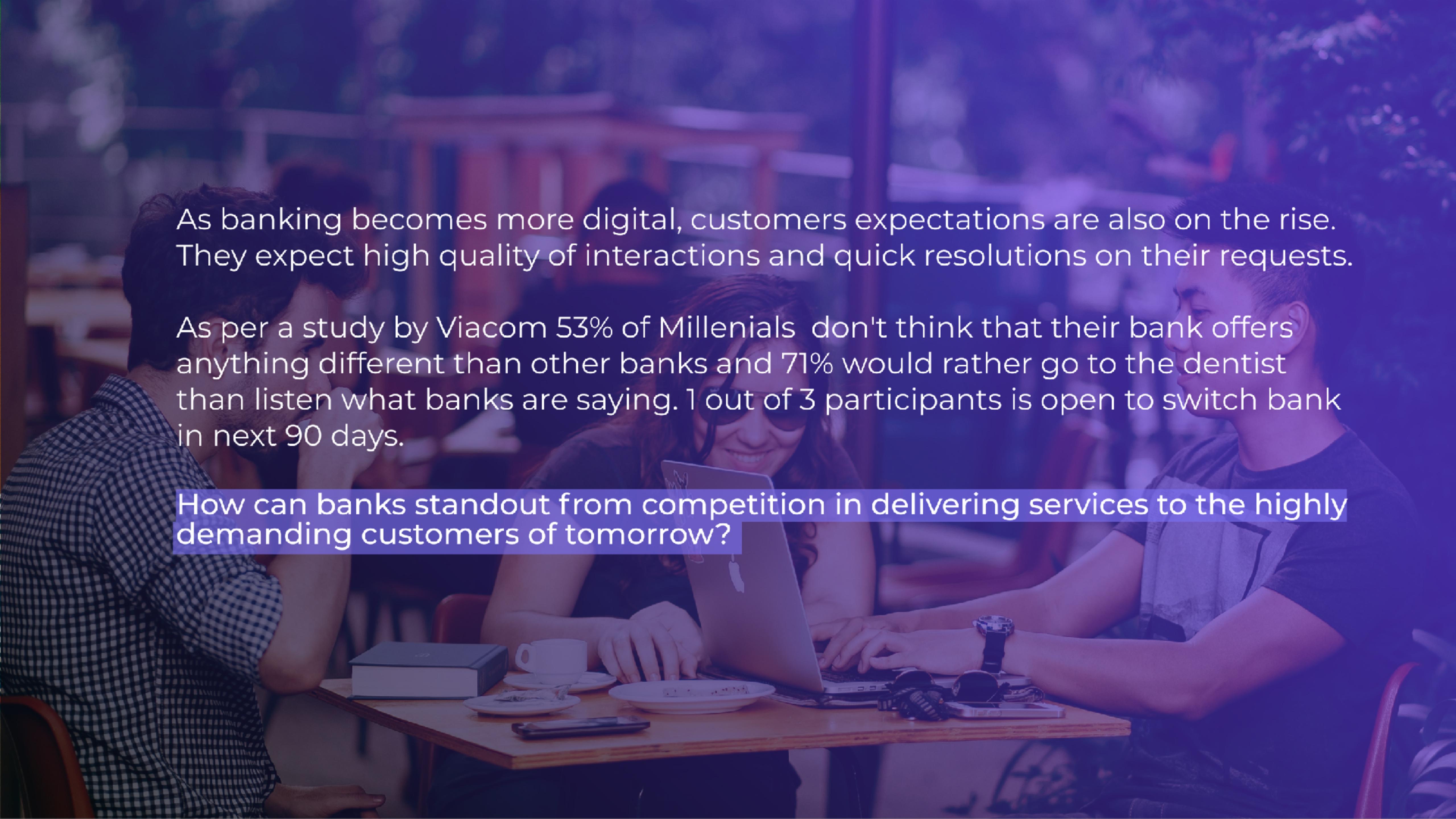


# Future of Banking

How can Design thinking and Artificial Intelligence help in reinventing banking and financial services?

A photograph showing four people (three men and one woman) sitting around a wooden table in a bright, modern cafe. They are all looking at a silver laptop screen, which displays a presentation slide with the question 'How can banks standout from competition in delivering services to the highly demanding customers of tomorrow?'. The people are dressed casually, and there's a coffee cup, a book, and some papers on the table.

As banking becomes more digital, customers expectations are also on the rise. They expect high quality of interactions and quick resolutions on their requests.

As per a study by Viacom 53% of Millenials don't think that their bank offers anything different than other banks and 71% would rather go to the dentist than listen what banks are saying. 1 out of 3 participants is open to switch bank in next 90 days.

**How can banks standout from competition in delivering services to the highly demanding customers of tomorrow?**

A photograph of four people sitting around a wooden table in a cafe. A woman in the center is smiling and looking at a laptop screen. A man to her right is also looking at the screen. A man on the far left is holding a white mug. A woman on the far right is looking towards the camera. On the table, there's a white coffee cup, a small plate with a dessert, a book, a smartphone, and some headphones. The background shows other cafe patrons and windows.

the key differentiator is

# CUSTOMER EXPERIENCE

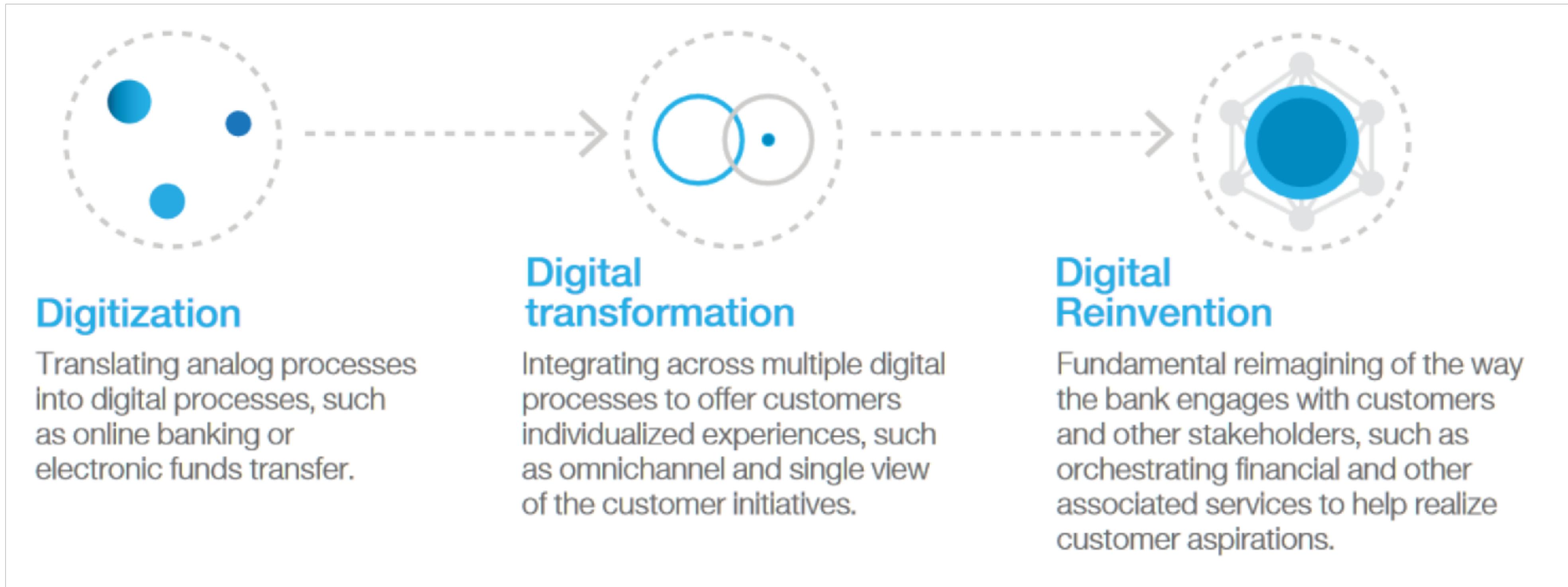


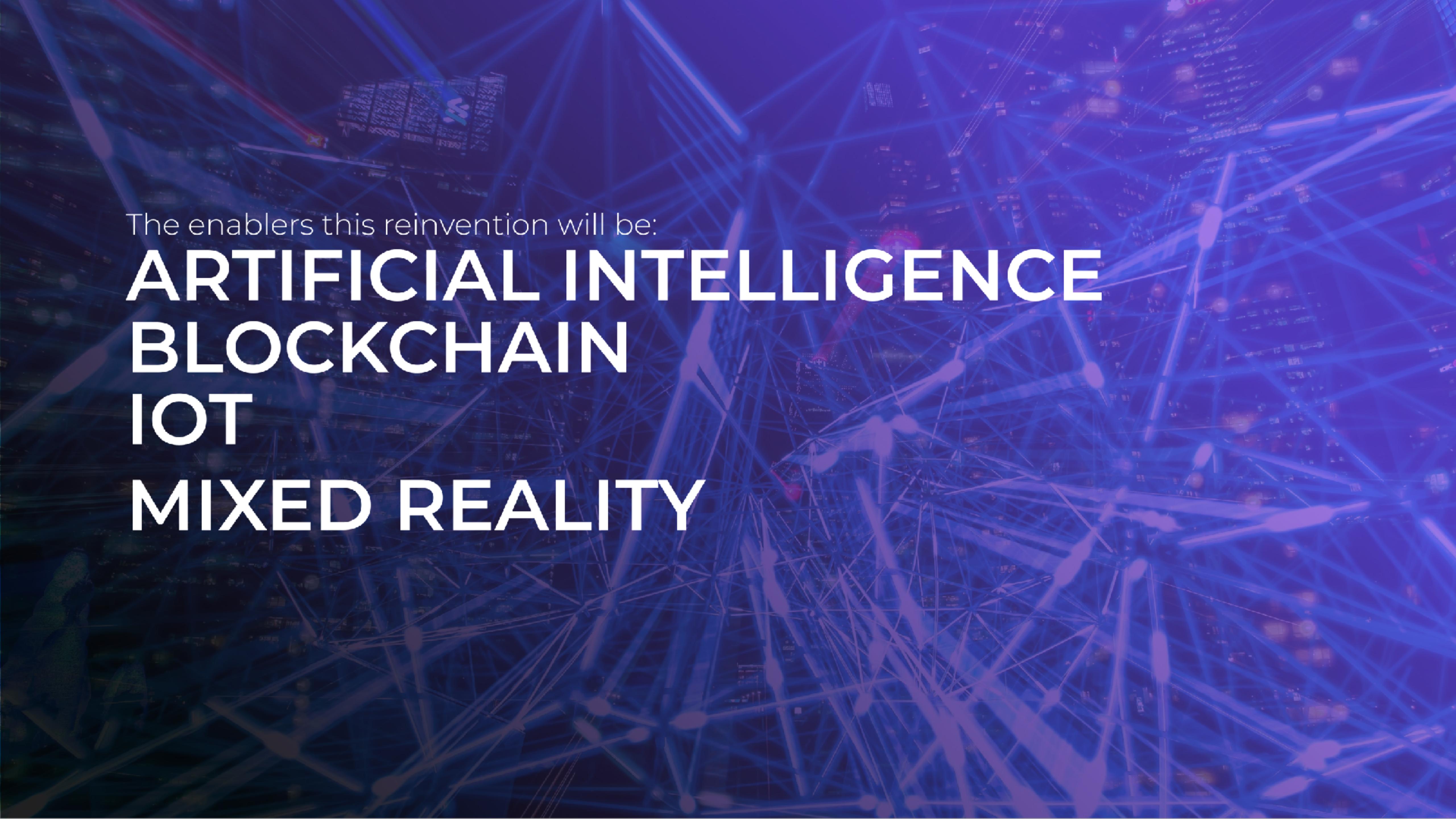
## Competition is not just from traditional banks anymore

The new Fintech firms and 'born in the cloud' banks are disrupting the financial services ecosystem. They offer alternatives to traditional bank products, with many offering clear benefits such as improved service and better value for money.

Banks are also struggling to reduce costs, maintain margins, increase revenue streams, increase the utilization of current assets and greater security.

This calls for a reimagining of the banking services and operations.





The enablers this reinvention will be:

**ARTIFICIAL INTELLIGENCE**  
**BLOCKCHAIN**  
**IOT**  
**MIXED REALITY**

# ARTIFICIAL INTELLIGENCE

Machine Learning, Deep Learning, Natural Language Processing & more

# Applications

## Personalised Experiences

Solutions can adapt to user preferences and contextual need rather than a 'one fits all approach'.

## Faster and efficient Customer Service

AI can analyze data and deliver information at speeds that are impossible to match for a human customer service agent. Therefore, AI can eliminate wait times and deliver more precise solutions.

# Applications

## Operational Efficiency

With capabilities such as predictive analytics and machine learning, AI can offer insights on designing processes, improving decision-making and increasing profitability.

## Targeted Offerings

Through AI and predictive analytics, banks can design offerings and promotions targeted for specific users.

# Applications

## Safety & Security

By studying complex relationships between customer behavior and suspicious patterns, AI can use Machine Learning, Predictive Analytics and statistics to pinpoint anomalies and predict fraud even before it happens.

## Regulations & Compliance

Utilizing robust data governance solutions that incorporate machine learning and the analytical powers of data science, organizations can get a deeper understanding of the information they possess and aid in easing compliance

# New Possibilities

## Tailored experience for Users

It is the individual not a target group that defines the user experience

## Natural and Intuitive Interfaces

ML has made it possible for machines to comprehend the natural human communication

## Augmented & Adaptive Workflows

ML systems can anticipate user needs and provide quicker routes to the desired outcome.

# Challenges

## Adoption

Lack of confidence in the capabilities of intelligent systems to make decisions

## Privacy

Users do not trust personal data being captured and used.

## Trust

ML systems are often perceived as black boxes. Lack of transparency cause mistrust

## Retention

Users tend to have higher expectations of an intelligent system and low fault tolerance. Any of this could discourage users from ML based tools

## Data Quality

Acquiring quality data that is representative of the problem is a challenge

## Biases

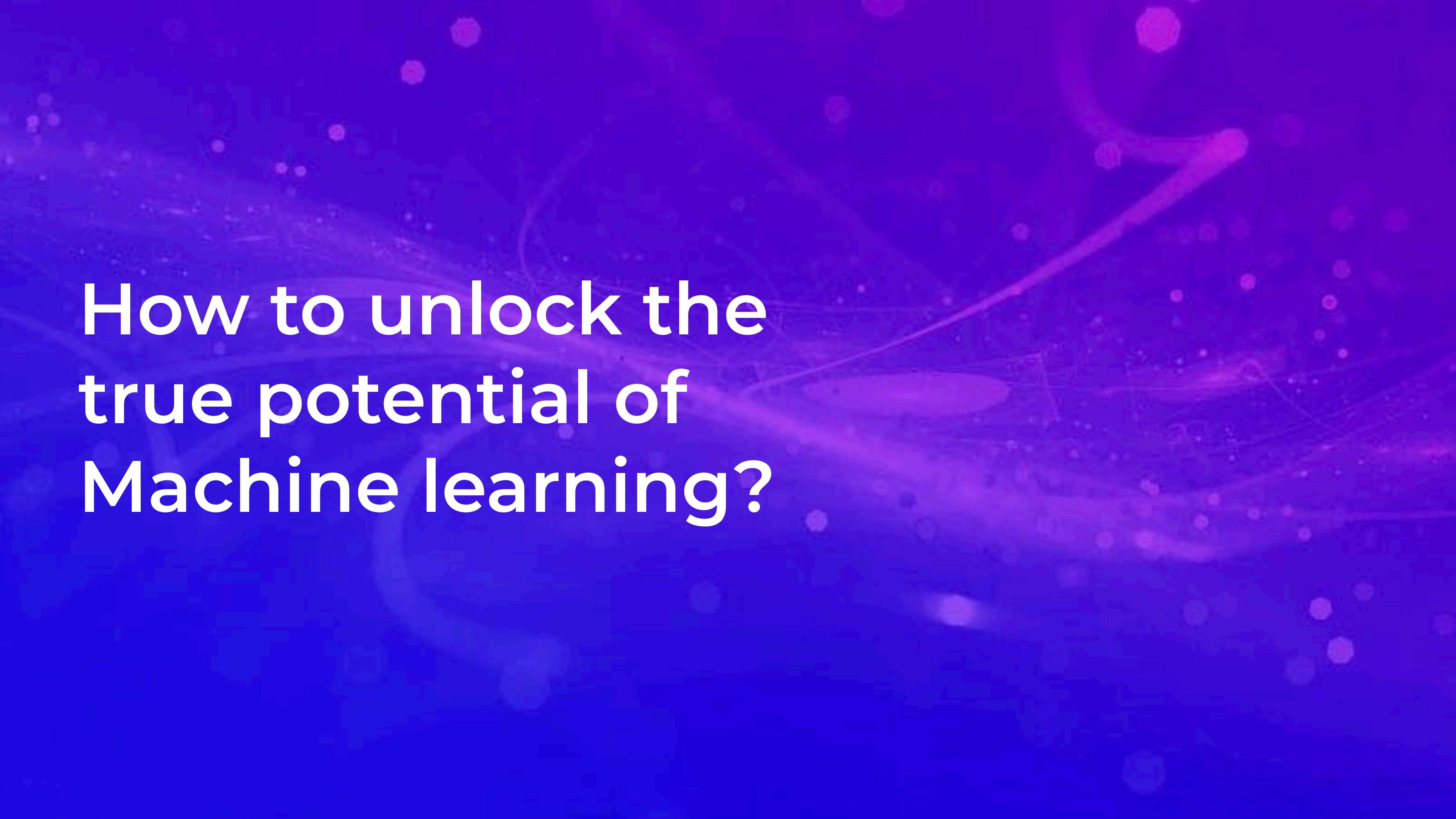
Data sample may be not be equally representative of the entire range of possible scenarios. Hence outcomes may be biased and not always be desirable.

## Reliability

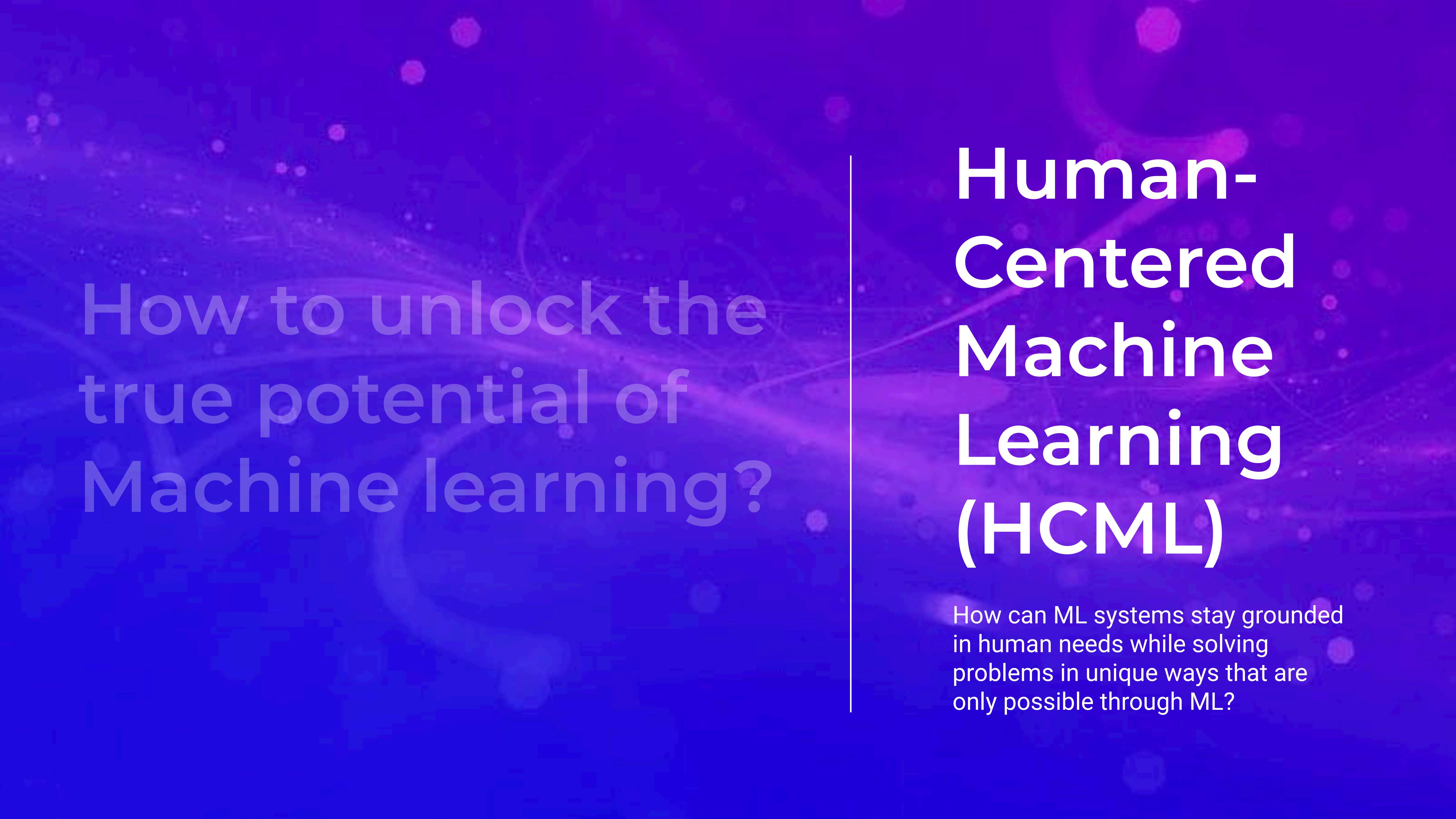
Outcomes from an ML based system are may not be always reproducible.

## Ethics

Data governance and corporate ethics related issues.



How to unlock the  
true potential of  
Machine learning?



How to unlock the  
true potential of  
Machine learning?

# Human- Centered Machine Learning (HCML)

How can ML systems stay grounded  
in human needs while solving  
problems in unique ways that are  
only possible through ML?

# HCML

## Empowering Users

Using the capabilities of ML based systems, delivering better experiences to the end users. This involves adaptive and natural interfaces, augmented workflows, predictive logic for better decision making etc.

## Enabling ML systems

Remove the opacity from ML systems which act as black-boxes and render the complexity of machine cognition comprehensible to humans. Transparency communicates trust.

Creating systems that are fault tolerant that can reduce possibilities of undesirable outcomes and manage failures effectively

# Empowering users

- Natural and intuitive interfaces
- Interfaces that understand user intent and predict goals - Adaptive UIs
- Custom feature blocks for enhanced quicker workflow
- Reduce the dependency on extensive documentation and training for new users
- Avoid repeated context dependant decisions
- Inferring intent from incomplete/inaccurate inputs
- Assist in prioritising data
- Assist in decision making through the predictive capabilities of ML systems.

# Enabling AI/ML

- Designing First-Time User Experiences (FTUE)
- Breaking down complex workflows and interactions into manageable chunks
- Encouraging and incentivising right responses from the users for better learning
- Managing the uncertainty and unreliability
- Mitigating effects of faulty assumptions
- Designing Sanity checks

# Impacts

## Adoption

Through transparency and trust

## Engagement

Reinforcing the human-machine feedback loop for better user experience and learning. Users will be capable of having natural and intuitive interactions.

## Retention

Preventing user drop-offs by mitigating undesirable outcomes

Design for  
**Conversational Interfaces**

# How can Design help?

To make the conversation flow as naturally and efficient as possible.

To create dialog that is comfortable, friction less and user centric.

# Role of Designers

Validating if a Conversational interface is the right choice

If yes, is voice required? Will it be a text based chatbot?

Identifying Users, Use Cases

This helps in designing dialogue that represents the target audience

Defining the personality of the bot/ assistant

Attributing a specific personality to the bot is crucial to design natural dialogues and evoke sincere responses from humans

# Role of Designers

## Detailed conversation Flow

Design possible routes for conversation with possible deviations from the ideal behaviour. Ensuring that conversation never comes to a dead end

## UX Writing and Micro copy for dialogues

Writing copy that matches the personality defined for the bot

## Mitigating effect of cultural biases and identifying inferred meanings from user inputs

A good knowledge of the user group and their cultural background is required in this cases, which could be obtained from rapid ethnographic studies. This allows machines to understand the intent beyond the superficial meaning of user inputs.

# Role of Designers

## Onboarding new users

Use conversational cues to let a new user understand what is possible and how to interact. This involved designing First Time User Experience flows and plan on gradually revealing features to the users.

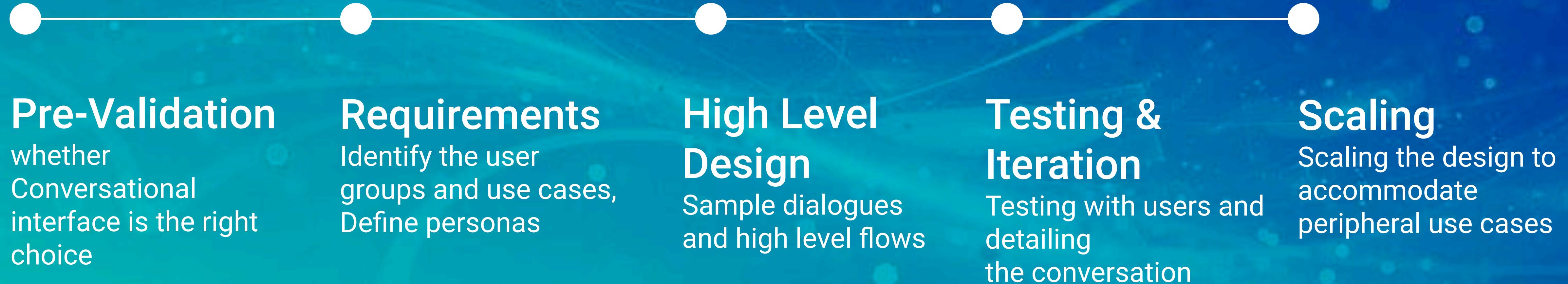
## Generating insights to improve the bot

Users can be guided to interact in such a way that both agents, the machine and the human are in a mutually beneficial conversation. The bot should be able to adapt better to the Users needs and expectations stations over time though continuous learning.

## Designing Graphical User Interfaces to host the chatbots

Major share of the Conversational interfaces are chatbots hosted in GUIs across multiple platforms. The GUI has to support and enhance the ease and quickness achieved through the use of a chatbot.

# Process



# Offerings

- Chatbot Design
- Conversational Interface Design
- Conversation Design (UX Writing)
- User Research and Rapid Ethnography
- System Design - ML based products and platforms
- UX Design for AI/ML (adoption, engagement, retention)