



# Transforming Knowledge Systems with Embedded Analytics and JavaScript Insights

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# The Enterprise Knowledge Crisis

50%

KMS  
Underperformance

Over half of enterprise  
knowledge  
management systems  
fail to deliver value

100K+

Employee Scale

Global workforce  
across 100s of  
countries

24

Month Journey

Transformation timeline  
from start to  
measurable results

# The Core Problems

## Static Architectures

Legacy systems unable to adapt to changing user needs and modern workflows

## Disconnected Content

Siloed information making it nearly impossible to find the right knowledge at the right time

## Poor User Experience

Clunky interfaces driving users away from self-service solutions





# Our Transformation Approach

01

## Behavior Analytics Integration

Embedded analytics to understand how users interact with knowledge systems

03

## Real-time Feedback Loops

Continuous improvement based on live user feedback and usage data

02

## Search Pattern Mining

Analyzed search queries to identify content gaps and user intent

04

## Custom Microservices

Enhanced SharePoint Online with tailored services for specific needs



# JavaScript at the Core

## Dynamic UI Components

Built responsive, interactive interfaces that adapt to user behavior and preferences in real-time

Leveraged modern frameworks to create seamless experiences across devices

## Context-Aware Filtering

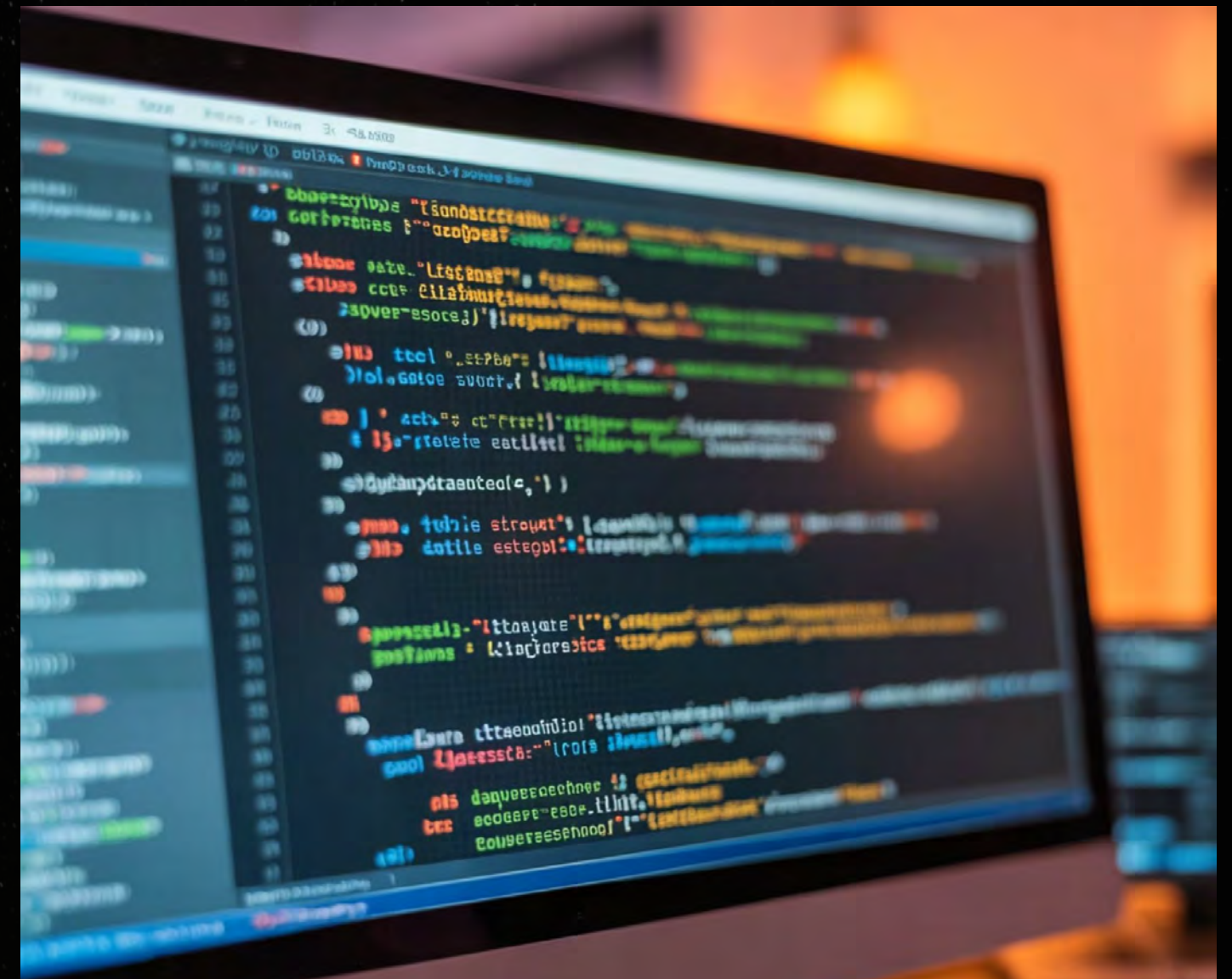
Implemented intelligent filtering that understands user roles, departments, and historical interactions

Reduced cognitive load by presenting only relevant information

## Natural Language Search

Developed search capabilities that understand intent, not just keywords

Users can ask questions in plain language and get accurate results





# The Technical Architecture

1

## SharePoint Online Base

Enterprise-grade foundation with security and compliance built-in

2

## Custom Microservices Layer

JavaScript-powered services for analytics, search, and personalization

3

## Analytics Engine

Real-time data processing and insights generation

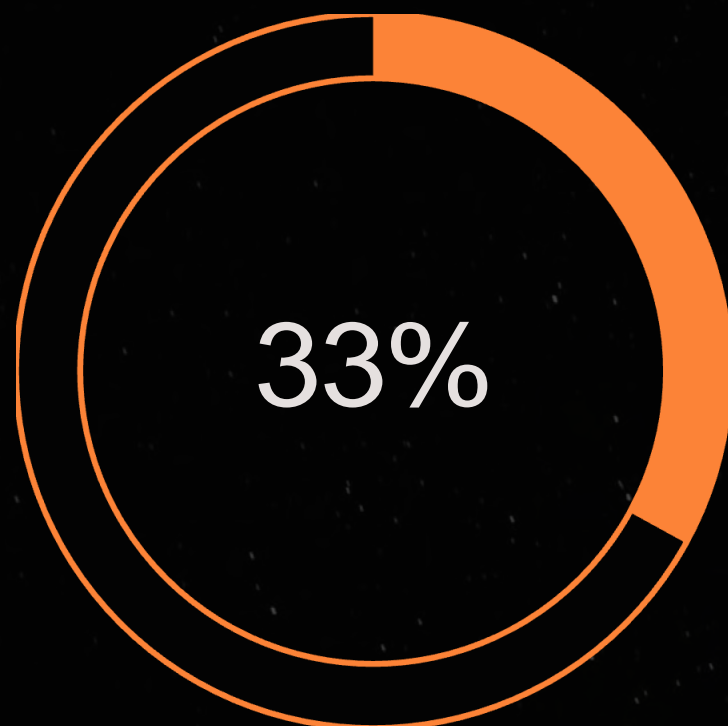
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## User Interface

Responsive, context-aware frontend delivering tailored experiences



# Measurable Impact: User Experience



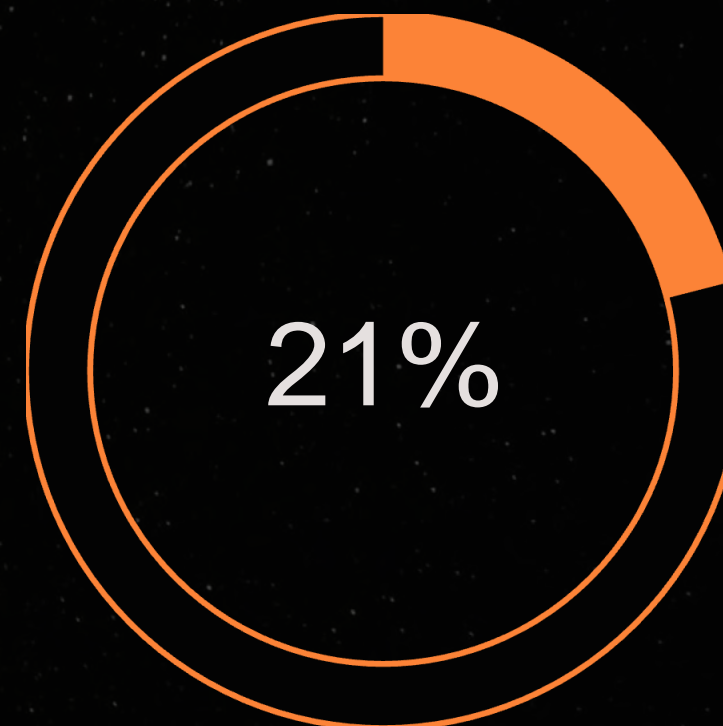
Faster Information Retrieval

Reduction in time to find critical knowledge



Point Increase

Self-service resolution jumped from 62% to 84%



Onboarding Acceleration

New employees get productive faster



# Business Value Delivered



\$3.7M Annual Savings

Reduced support costs and improved operational efficiency



35% Drop in Support Tickets

Users finding answers independently without escalation







# Analytics-Driven Governance

## Document Engagement Tracking

JavaScript dashboards showing which content resonates and which gets ignored

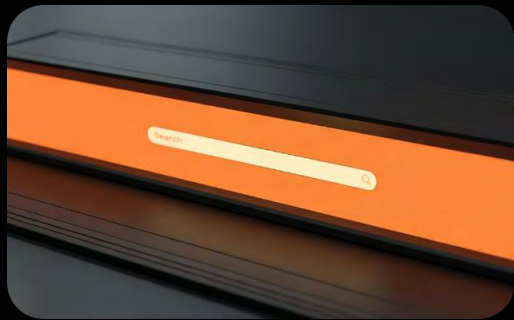
## Abandonment Analysis

Identifying where users give up searching to improve those journeys

## Emerging Needs Detection

Proactively identifying content gaps based on search patterns and failed queries

# Key Technical Implementations



## Intelligent Search

NLP-powered search understanding user intent and context



## Personalization Engine

Content recommendations based on role, behavior, and preferences



## Real-time Analytics

Live dashboards for governance and continuous improvement



# Architecture Principles for Success



## Modular Design

Build independent components that can evolve separately without breaking the system



## Analytics-First Mindset

Embed measurement and data collection from day one, not as an afterthought



## Scalability by Default

Design for growth across geographies, users, and content volume



## User-Centric Development

Continuously test with real users and iterate based on feedback

# Lessons Learned



## Start with User Behavior

Don't assume you know what users need. Let analytics guide your decisions from the beginning.

## Invest in Microservices

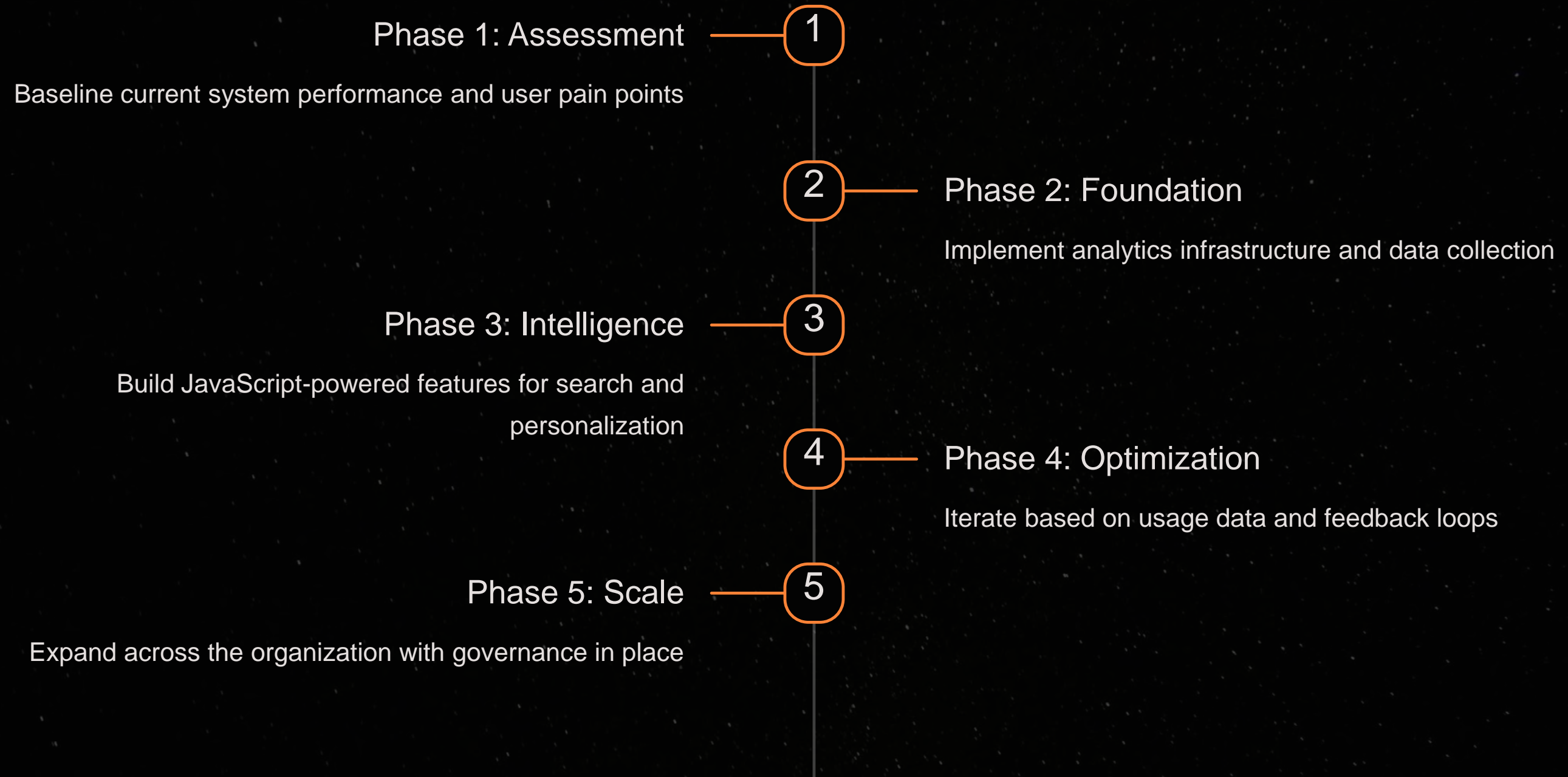
Augmenting platforms like SharePoint with custom services unlocks flexibility without starting from scratch.

## Make Data Visible

Real-time dashboards create accountability and drive continuous improvement across teams.



# Your Replicable Blueprint



# Key Takeaways

## Embed analytics throughout your KMS

Make data collection and insights generation core to the platform architecture

## Focus on measurable outcomes

Track retrieval time, resolution rates, and business metrics to prove ROI

## JavaScript enables real-time intelligence

Modern frameworks power the dynamic, responsive experiences users expect

## Build modular and scalable

Design systems that can grow and adapt as your organization evolves



# Thank You

**Harshita Dubey**

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