SECTION 1: SYSTEM ARCHITECTURE OVERVIEW

text

ADROOM SYSTEM COMPONENTS:

1. AI CORE BRAIN (Primary Intelligence)

- Model: Gemini 2.5 Pro (primary), GPT-5 (secondary for specific tasks)

- Location: Cloud-based, always running

- Function: Makes ALL decisions, generates ALL content, drives ALL interactions

2. MEMORY SYSTEM (Complete Recall)

- User Memory: Everything about each user (past strategies, preferences, results)

- Platform Memory: Algorithm history, trend patterns, what worked when

- Strategy Memory: Every campaign ever run, what succeeded/failed

- Learning Memory: Patterns detected across all users/strategies

3. PLATFORM INTELLIGENCE ENGINE (AI-Powered)

- Real-time platform monitoring

- Algorithm shift detection

- Trend analysis

- Optimization generation

4. STRATEGY GENERATOR (AI-Powered)

- FREE Strategy Creator

- PAID Strategy Creator

- Side-by-side comparison generator

5. EXECUTION ENGINE

- Content scheduler

- Platform connectors

- Budget manager

- Performance tracker

6. COMMUNICATION ENGINE

- Natural language user interactions

- Progress reports

- Alerts and suggestions

SECTION 2: MEMORY SYSTEM - COMPLETE DETAIL

What AdRoom Remembers About EVERY User

yaml

USER MEMORY DATABASE (Per User):

PERSONAL INFORMATION:

- user_id (unique identifier)

- username

- email

- account_created_date

- last_active_date

- total_strategies_created

- total_spend_all_time

- average_roas_all_time

- preferred_platforms (from history)

- preferred_strategy_type (free vs paid preference)

- communication_preferences (notification frequency, detail level)

STRATEGY HISTORY (Every strategy ever run):

For EACH past strategy:

- strategy_id

- strategy_name

- strategy_type (product/service/brand/brand+product/brand+service)

- strategy_version (free/paid)

- goal

- duration_days

- start_date

- end_date

- status (completed/paused/cancelled)

- product_id (if applicable)

- platform_data (which platforms used)

- total_impressions

- total_clicks

- total_leads

- total_conversions

- total_spend

- total_revenue

- roas

- notes (AI-generated summary of what worked/failed)

PRODUCT MEMORY (Every product ever uploaded):

For EACH product:

- product_id

- product_name

- brand

- category

- product_type

- color

- size

- features (array)

- price

- description

- target_audience (as entered by user)

- target_audience_ai (AI's enhanced understanding)

- original_scan_data (raw from Gemini)

- images (array of all uploaded images)

- created_date

- times_promoted

- best_performing_goal (from history)

- best_performing_platform (from history)

- average_roas_when_promoted

SERVICE MEMORY (Every service ever uploaded):

For EACH service:

- service_id

- service_name

- category

- description

- price

- pricing_model

- service_area

- target_audience

- created_date

- times_promoted

- best_performing_goal

- best_performing_platform

BRAND MEMORY (Every brand ever created):

For EACH brand:

- brand_id

- brand_name

- mission

- values

- voice

- colors

- logo

- target_audience

- created_date

- times_promoted

PERFORMANCE PATTERNS (AI-detected):

For THIS user:

- best_time_to_post (per platform, learned from history)

- best_content_format (Reels vs carousel vs static)

- best_audience_response (what messaging resonates)

- worst_performing_approaches (to avoid)

- seasonal_patterns (when user's products sell best)

What AdRoom Remembers About Platforms

yaml

PLATFORM MEMORY DATABASE (Global):

FACEBOOK MEMORY:

- algorithm_update_history (every change with date)
- current_priorities (real-time):
  * video_preference_level (1-10)
  * native_content_boost (1-10)
  * engagement_weighting (comments vs likes)
  * groups_importance (1-10)
  * stories_weight (1-10)
  * live_video_boost (1-10)
- trend_history (what content types performed when)
- seasonal_patterns (holiday impacts)
- industry_benchmarks (by category):
  * average_ctr
  * average_cpc
  * average_roas
  * average_engagement_rate

INSTAGRAM MEMORY:

- algorithm_update_history
- current_priorities:
  * reels_weight (1-10)
  * carousel_boost (1-10)
  * saves_importance (1-10)
  * shares_importance (1-10)
  * story_engagement_weight (1-10)

* original_audio_boost (1-10)

- trend_history

- seasonal_patterns

- industry_benchmarks

TIKTOK MEMORY:

- algorithm_update_history

- current_priorities:

* trending_audio_boost (1-10)

* completion_rate_importance (1-10)

* duet_enabled_boost (1-10)

* caption_length_preference

* hook_importance (first 2 seconds)

- trend_history (viral patterns)

- sound_trends (current trending audio)

- hashtag_trends (current trending tags)

What AdRoom Remembers About Strategies (Global)

yaml

GLOBAL STRATEGY MEMORY (Across ALL users):

By INDUSTRY:

For EACH industry category:

- industry_name

- total_strategies_run

- average_roas

- best_performing_goal

- best_performing_platform

- best_content_formats

- best_ad_copy_patterns

- worst_performing_approaches

- seasonal_trends

By GOAL TYPE:

For EACH goal (sales, awareness, etc.):

- total_strategies

- average_success_rate

- average_duration_for_success

- platform_preferences

- budget_correlation (how budget impacts success)

By PLATFORM:

For EACH platform:

- total_campaigns

- average_roas

- algorithm_sensitivity (how quickly changes impact)

- content_format_performance (what works best now)

By STRATEGY TYPE (Free vs Paid):

- free_strategy_success_rate (by industry)

- free_strategy_time_to_results (average days)

- free_strategy_max_reach (average organic reach)

- paid_strategy_success_rate

- paid_strategy_optimal_budget_range

- paid_strategy_roas_by_budget_level

SECTION 3: AI CORE BRAIN - COMPLETE DETAIL

The AI Brain's Architecture

yaml

AI CORE BRAIN COMPONENTS:

1. INPUT PROCESSOR:

  Receives: User messages, image uploads, platform data, performance metrics

  Function: Understands what's being asked/sent

  Uses: Gemini 2.5 Pro for vision, GPT-5 for text understanding

2. MEMORY RETRIEVER:

  Receives: Current context (user, strategy, product)

  Function: Pulls ALL relevant memory for this situation

  Retrieves:

    - User's history

    - Product history

    - Platform current state

    - Global patterns for this industry

    - Similar past strategies and their outcomes

3. DECISION ENGINE:

  Receives: Processed input + all relevant memory

  Function: Makes ALL strategic decisions

  Decisions include:

    - What strategy type to recommend

    - What content to create

    - What platforms to use

- What optimizations to apply

- Whether to auto-apply or ask user

4. GENERATION ENGINE:

Receives: Decision output from Decision Engine

Function: Creates all assets and plans

Generates:

- Ad copy variations

- Image prompts for other models

- Video scripts

- Content calendars

- Optimization recommendations

5. EXECUTION PLANNER:

Receives: Generated strategy

Function: Creates detailed execution steps

Outputs:

- Exact posting schedule (date/time per platform)

- Exact budget allocation (per platform, per day)

- Exact targeting parameters

- A/B test configurations

6. COMMUNICATION ENGINE:

Receives: All of the above, user queries

Function: Talks to user naturally

Outputs:

- Greetings

- Strategy explanations

- Progress reports

- Questions for user

- Alerts and suggestions

7. LEARNING ENGINE:

Receives: All outcomes, all user interactions

Function: Updates ALL memory systems

Updates:

- User memory with new results

- Platform memory with new patterns

- Global strategy memory with learnings

- Own decision models for future

The AI Brain's Thinking Process (Detailed)

For EVERY decision, the AI brain follows this process:

yaml

Step 1: GATHER CONTEXT

"What am I being asked right now?

Who is this user? (pull full user memory)

What have they done before?

What's currently active?

What's the platform landscape right now?

What global patterns apply?"

Step 2: RETRIEVE RELEVANT MEMORY

"Has this user done something similar before?

What were the results?

What does global data say about this product type?

What platforms are favoring what right now?"

Step 3: GENERATE POSSIBILITIES

"Based on all this, what are 3-5 possible approaches?

For each possibility:

- What would it require?

- What would success look like?

- What are the risks?

- How long would it take?"

Step 4: EVALUATE AND SELECT

"Which possibility best fits:

- This user's preferences?

- This product's characteristics?

- Current platform algorithms?

- Available resources?

Select the optimal approach."

Step 5: CREATE DETAILED PLAN

"Now, generate the complete execution plan:

- Exact content

- Exact timing

- Exact budget

- Exact targeting

- Success metrics"

Step 6: PREPARE COMMUNICATION

"How do I explain this to the user?

What will they want to know?

What options should they have?

How do I ask for their input?"

Step 7: EXECUTE OR WAIT

"If auto-approve: Execute immediately

If need approval: Present and wait

Monitor response and outcomes"

Step 8: LEARN

"What happened?

What worked?

What didn't?

Update all memory systems."

SECTION 4: COMPLETE USER INTERACTION FLOW WITH AI BRAIN

FLOW START: User Opens App or Sends Message

yaml

EVENT: User opens AdRoom OR sends any message

AI BRAIN ACTION:

"I need to greet this user appropriately."

MEMORY RETRIEVAL:

- Get user_id from session

- Pull COMPLETE user memory

- Check for any active strategies

- Check time since last interaction

- Check any pending notifications

DECISION:

IF this is first interaction today OR >24 hours since last:

  - Generate full greeting with status

ELSE:

  - Generate quick acknowledgment

OUTPUT TO USER:

[SCENARIO 1: User has active strategy]

"Greetings [username]! 👋 Welcome back to AdRoom.

I remember you. You last logged in [X days/hours] ago.

You currently have 1 active strategy running.

=== ACTIVE STRATEGY SUMMARY ===

Strategy: [product name] - [goal] Campaign

Type: [FREE/PAID]

Started: [start date]

Days remaining: [X] of [total]

Current status: [performance summary]

=== LATEST PERFORMANCE (Last 24h) ===

📊 Impressions: [number] (↑/↓ vs yesterday)

🔗 Clicks: [number] (↑/↓)

📧 Leads: [number] (↑/↓)

💰 Conversions: [number] (↑/↓)

💵 Spend today: $[amount]

📈 ROAS: [number]x

=== AI INSIGHTS ===

Based on my analysis of the last 24 hours:

• [Platform] is favoring [content type] right now

• Your [specific asset] is performing [above/below] average

• I've already applied [X] optimizations automatically

• I have [Y] suggestions for improvements

=== WHAT WOULD YOU LIKE TO DO? ===

[1] View full strategy details

[2] Review my optimization suggestions

[3] Create a new strategy

[4] Just monitoring - I'll check back later

[5] Ask me anything about your campaigns"

[SCENARIO 2: User has NO active strategy]

"Greetings [username]! 👋 Welcome to AdRoom.

I remember you. You last logged in [X days/hours] ago.

You don't have any active strategies right now.

Based on your history:

• You've run [number] strategies with me

• Your most successful was [strategy name] with [X]% ROAS

• You typically prefer [FREE/PAID] strategies

• Your best performing product was [product name]

The platform landscape right now:

• Facebook is favoring [current priority]

• Instagram is pushing [current priority]

• TikTok is trending with [current trend]

Would you like to create a new strategy?

[1] Yes, let's create one

[2] Show me my past strategies

[3] Just browsing right now"

SECTION 5: COMPLETE ACTIVE STRATEGY DETAILS FLOW

When User Requests Full Strategy Details

yaml

USER ACTION: Selects "View full strategy details"

AI BRAIN ACTION:

"User wants complete details on their active strategy.

I need to pull EVERY piece of data and present it clearly."

MEMORY RETRIEVAL:

- Get active strategy_id

- Pull COMPLETE strategy record

- Pull ALL performance metrics (daily)

- Pull ALL optimizations applied so far

- Pull platform-specific performance

- Pull creative assets and their performance

- Compare to benchmarks (user history + global)

DECISION:

Organize information in logical sections

Highlight what's most important/urgent

Prepare actionable next steps

OUTPUT TO USER:

"=== COMPLETE STRATEGY DETAILS ===

📋 STRATEGY OVERVIEW

Strategy Name: [product name] - [goal] Campaign

Strategy ID: [id]

Type: [FREE/PAID]

Goal: [goal]

Duration: [total days] days (Day [current] of [total])

Start Date: [date]

End Date: [date]

Status: Active

🎯 PRODUCT BEING PROMOTED

Product Name: [name]

Category: [category]

Price: $[price]

Target Audience: [audience]

Key Features: [features]

Description: [description]

📊 OVERALL PERFORMANCE TO DATE

Total Impressions: [number]

Total Clicks: [number]

Click-Through Rate (CTR): [percentage]%

Total Leads: [number]

Total Conversions: [number]

Conversion Rate: [percentage]%

Total Spend: $[amount]

Total Revenue: $[amount]

ROAS: [number]x

Comparison to your average:

• CTR: [↑/↓/same] vs your historical average

• ROAS: [↑/↓/same] vs your historical average

• This strategy is performing [better/worse/same] than your last [goal] campaign

Comparison to industry benchmarks:

• CTR: [↑/↓/same] vs industry average of [X]%

• ROAS: [↑/↓/same] vs industry average of [X]x

📈 PERFORMANCE BY PLATFORM

FACEBOOK:

Impressions: [number] ([percentage]% of total)

Clicks: [number]

CTR: [percentage]%

Conversions: [number]

Spend: $[amount]

ROAS: [number]x

Current algorithm alignment: [percentage]%

Notes: [AI insight about Facebook performance]

INSTAGRAM:

Impressions: [number] ([percentage]% of total)

Clicks: [number]

CTR: [percentage]%

Conversions: [number]

Spend: $[amount]

ROAS: [number]x

Current algorithm alignment: [percentage]%

Notes: [AI insight about Instagram performance]

TIKTOK:

Impressions: [number] ([percentage]% of total)

Clicks: [number]

CTR: [percentage]%

Conversions: [number]

Spend: $[amount]

ROAS: [number]x

Current algorithm alignment: [percentage]%

Notes: [AI insight about TikTok performance]

🎨 CREATIVE ASSETS PERFORMANCE

AD COPY VARIATIONS:

1. "[headline 1]" - CTR: [X]% (best performer)

2. "[headline 2]" - CTR: [X]%

3. "[headline 3]" - CTR: [X]% (worst performer)

IMAGE ASSETS:

[Image 1 description] - CTR: [X]%

[Image 2 description] - CTR: [X]% (best)

[Image 3 description] - CTR: [X]%

VIDEO ASSET (if applicable):

[Video description] - Views: [X], Completion rate: [X]%

🤖 OPTIMIZATIONS APPLIED (Last 7 Days)

Date: [date] - Applied automatically

Change: Adjusted posting time from 2pm to 5pm on Instagram

Reason: Detected your audience is most active at 5pm

Result: Engagement increased [X]%

Date: [date] - Applied automatically

Change: Switched to trending audio on TikTok Reel

Reason: Platform favoring [audio name] this week

Result: Views increased [X]%

Date: [date] - Applied after your approval

Change: Created 2 new image variations

Reason: Original images CTR was dropping

Result: [pending measurement]

🧠 CURRENT PLATFORM INTELLIGENCE

FACEBOOK RIGHT NOW:

Priority: [current priority]

What's working: [specific insight]

What's not: [specific insight]

For YOUR campaign: I recommend [specific action]

INSTAGRAM RIGHT NOW:

Priority: [current priority]

What's working: [specific insight]

What's not: [specific insight]

For YOUR campaign: I recommend [specific action]

TIKTOK RIGHT NOW:

Priority: [current priority]

Trending audio: [audio names]

Trending hashtags: [hashtags]

For YOUR campaign: I recommend [specific action]

🔮 NEXT STEPS & RECOMMENDATIONS

IMMEDIATE OPPORTUNITIES (Next 24h):

1. [Action] - Expected impact: [X]% improvement

2. [Action] - Expected impact: [X]% improvement

UPCOMING (Next 3 days):

1. [Action] - Reason: [platform shift expected]

2. [Action] - Reason: [content calendar scheduled]

STRATEGIC SUGGESTIONS:

• [Major suggestion 1]

• [Major suggestion 2]

⚠️ ALERTS

[Any issues needing attention]

❓ WHAT WOULD YOU LIKE TO DO?

---

[1] Apply all immediate opportunities

[2] Review suggestions in detail

[3] Edit strategy parameters

[4] Pause strategy

[5] Duplicate this strategy

[6] Return to main menu"

SECTION 6: COMPLETE CREATE NEW STRATEGY FLOW

Step 1: Strategy Type Selection

yaml

USER ACTION: Selects "Create new strategy"

AI BRAIN ACTION:

"User wants to create something new.

I need to guide them through the complete process.

First, determine what type of strategy."

MEMORY RETRIEVAL:

- Check user's past strategy types

- Check any products/services already in database

- Consider what's most likely based on history

DECISION:

Present options with context from memory

OUTPUT TO USER:

"Great! Let's create a new marketing strategy. 🚀

Based on your history, you've mostly created [product/service/brand] strategies.

Your most successful was [type] with [product name].

What would you like to create a strategy for?

---

[1] PRODUCT 🏷️ - Promote a specific physical or digital product

Best for: Selling items, product launches, e-commerce

[2] SERVICE 🛠️ - Promote a service you offer

Best for: Consultations, bookings, local services

[3] BRAND ONLY 🏛️ - Build brand awareness

Best for: Brand building, no specific product focus

[4] BRAND + PRODUCT 📦 - Combine brand and product

Best for: Launching products while building brand

[5] BRAND + SERVICE 🔧 - Combine brand and service

Best for: Service businesses building authority

[6] USE EXISTING - Use a product/service you've created before

[Shows list of user's past products/services]

Which option would you like?"

USER SELECTS: [option]

Step 2: Product Strategy - Complete Flow (if product selected)

yaml

USER SELECTS: "Product"

AI BRAIN ACTION:

"User wants product strategy. Begin product intake process."

MEMORY RETRIEVAL:

- Check if user has existing products

- Prepare to receive new product

OUTPUT TO USER:

"You've selected PRODUCT strategy. Let me help you set up your product.

Do you want to:

[1] Upload a new product (I'll scan it for you)

[2] Select an existing product from your history"

[IF USER SELECTS "Upload new product":]

"Please upload a clear image of your product.

📸 Accepted formats: JPG, JPEG, PNG, WEBP

📦 Max size: 10MB

💡 Tip: Well-lit, clear images give best results"

[USER UPLOADS IMAGE]

AI BRAIN ACTION - IMAGE SCAN:

"I've received the image. Now I need to extract all possible information."

CALL GEMINI 2.5 PRO:

Send image with prompt:

"Analyze this product image in extreme detail.

Extract every possible piece of information.

Return JSON with:

- product_type (what kind of product is this)

- brand (any visible brand name/logo)

- color (primary and secondary colors)

- visible_features (array of visible features/attributes)

- product_name (any name visible or infer best name)

- estimated_size (relative size, dimensions if visible)

- category (broader category like electronics, clothing, etc.)

- material (if visible/apparent)

- condition (new, used, etc. if apparent)

- packaging (is it in packaging, what kind)

- text_detected (any text visible on product/packaging)

- suggested_target_audience (who would buy this, based on visual)

- suggested_price_range (estimated based on appearance)

- quality_score (1-10, how clear/useful this image is for analysis)"

RECEIVE AND PARSE RESPONSE:

productData = JSON.parse(geminiResponse)

DISPLAY PROCESSING:

"🔍 Scanning your product image with Gemini 2.5 Pro...

Analyzing visual details...

Detecting text and labels...

Identifying features...

Scan complete! I've extracted the following information:"

OUTPUT TO USER - EXTRACTED DATA REVIEW:

"=== PRODUCT SCAN RESULTS ===

I've analyzed your image and extracted these details.

Please review and edit anything that's incorrect or missing.

📋 PRODUCT INFORMATION

Product Name: [productData.product_name or "Not detected"]

Brand: [productData.brand or "Not detected"]

Category: [productData.category or "Not detected"]

Product Type: [productData.product_type or "Not detected"]

Color: [productData.color or "Not detected"]

Size/Dimensions: [productData.estimated_size or "Not detected"]

Material: [productData.material or "Not detected"]

Condition: [productData.condition or "Not detected"]

🔍 FEATURES DETECTED

[list each feature from productData.visible_features]

📝 TEXT DETECTED ON PRODUCT

[list each text item from productData.text_detected]

💰 PRICE INFORMATION

Suggested Price Range: [productData.suggested_price_range]

(You'll set actual price in next step)

👥 TARGET AUDIENCE SUGGESTION

Based on visual analysis, this product likely appeals to:

[productData.suggested_target_audience]

Would you like to:

[1] Accept these details and continue

[2] Edit these details

[3] Rescan with a different image

[4] Enter all details manually"

[IF USER SELECTS "Edit these details":]

DISPLAY EDIT FORM:

"Please edit any fields below:"

FIELD: Product Name

Type: text

Current value: [productData.product_name]

Required: yes

FIELD: Brand

Type: text

Current value: [productData.brand]

Required: yes

FIELD: Category

Type: dropdown with common categories + custom option

Current value: [productData.category]

Required: yes

FIELD: Product Type

Type: text

Current value: [productData.product_type]

Required: yes

FIELD: Color

Type: text

Current value: [productData.color]

Required: no

FIELD: Size/Dimensions

Type: text

Current value: [productData.estimated_size]

Required: no

FIELD: Material

Type: text

Current value: [productData.material]

Required: no

FIELD: Features

Type: text area (enter each feature on new line)

Current value: [productData.visible_features joined by newlines]

Required: no

FIELD: Price ($)

Type: number

Current value: [user must enter]

Required: yes

Help: "What's your selling price?"

FIELD: Product Description

Type: text area

Current value: [blank or generate from features]

Required: yes

Help: "Describe your product in detail. What problem does it solve? What makes it special?"

FIELD: Target Audience

Type: text area

Current value: [productData.suggested_target_audience]

Required: yes

Help: "Who is this product for? Be specific (e.g., 'fitness enthusiasts aged 25-40', 'small business owners')"

FIELD: Additional Images (optional)

Type: file upload

Multiple: yes

Help: "Upload more images to help me understand your product better"

[USER SUBMITS EDITED FORM]

AI BRAIN ACTION:

"User has provided edited product details.

Save to database with original scan as reference.

Generate enhanced understanding of product."

PROCESS:

- Save to Products table with:

user_id

all edited fields

original_scan_data (raw from Gemini)

created_date

enhanced_description (AI-generated from all inputs)

- Generate product summary for internal use:

"Product: [name]

Key selling points: [extracted from description]

Emotional appeal: [inferred from description/features]

Price positioning: [budget/mid-range/premium]

Visual style: [from images]"

OUTPUT TO USER:

"✅ Product saved successfully!

I now have a complete understanding of your [product name].

Based on your description and images, I understand that:

• [Key insight 1]

• [Key insight 2]

• [Key insight 3]

This product is best positioned as [positioning statement].

Ready to set up your campaign goal!"

Step 3: Campaign Goal Selection

yaml

CONTINUING FROM PRODUCT SETUP:

AI BRAIN ACTION:

"Now that I understand the product, I need to understand the goal."

MEMORY RETRIEVAL:

- Check user's past goals for similar products

- Check what goals are performing well currently

OUTPUT TO USER:

"=== SELECT CAMPAIGN GOAL ===

What's your primary objective for this product?

---

[1] SALES/CONVERSIONS 💰

Drive direct purchases of your product

Best for: Products ready to sell now

Current platform favorability: High on Facebook/Instagram

[2] AWARENESS 👁️

Get maximum visibility for your product

Best for: New products, brand building

Current platform favorability: High on TikTok/Reels

[3] PROMOTIONAL 🏷️

Promote a special offer or discount

Best for: Sales events, clearance, seasonal

Current platform favorability: Medium across platforms

[4] PRODUCT LAUNCH 🚀

Launch a new product to market

Best for: New releases, pre-orders

Current platform favorability: Very High (platforms favor new)

[5] LOCAL 📍

Target customers in specific locations

Best for: Physical products with local appeal

Current platform favorability: High on Facebook

[6] RETARGETING 🔁

Re-engage people who showed interest

Best for: Abandoned carts, past visitors

Current platform favorability: Very High (cheapest conversions)

[7] LEAD GENERATION 📧

Collect emails/signups for this product

Best for: Building list before launch

Current platform favorability: Medium

Based on your product [product name] and its price point [$price],

I recommend [goal] as your best option because:

• [Reason 1 based on product analysis]

• [Reason 2 based on platform landscape]

• [Reason 3 based on your history]

But you can choose any goal that fits your needs.

Which goal would you like to select?"

USER SELECTS: [goal]

Step 4: Duration Selection

yaml

AI BRAIN ACTION:

"Goal selected. Now determine optimal duration."

MEMORY RETRIEVAL:

- Check platform benchmarks for this goal

- Check user's past duration preferences

- Consider product price/sales cycle

CALCULATE RECOMMENDED DURATION:

BASE RULES:

IF goal = "sales": min_days = 14, recommended = 21, max = 60

IF goal = "awareness": min_days = 21, recommended = 30, max = 90

IF goal = "promotional": min_days = 7, recommended = 14, max = 30

IF goal = "product_launch": min_days = 21, recommended = 30, max = 60

IF goal = "local": min_days = 14, recommended = 21, max = 45

IF goal = "retargeting": min_days = 21, recommended = 30, max = 90

IF goal = "lead_generation": min_days = 21, recommended = 30, max = 60

ADJUST BASED ON PRICE:

IF price > $100: increase recommended by +7 days (longer sales cycle)

IF price < $20: decrease recommended by -3 days (impulse buys)

ADJUST BASED ON PLATFORM LANDSCAPE:

IF current platform volatility = high: shorter recommended

IF stable: can go longer

OUTPUT TO USER:

"=== SELECT CAMPAIGN DURATION ===

How long should your campaign run?

Based on your goal of [goal] and product price of $[price],

I recommend [recommended_days] days.

---

[1] Use recommended: [recommended_days] days

Why: [explanation based on calculations]

[2] Shorter campaign: [recommended_days - 7] days

Why: Faster results, more intensity, good for testing

[3] Longer campaign: [recommended_days + 7] days

Why: More reach, better for learning, gradual growth

[4] Custom duration

Enter any number from 1 to 365 days

What would you like?"

USER SELECTS: [duration option]

SECTION 7: COMPLETE STRATEGY GENERATION - FREE VS PAID

AI Brain's Dual-Strategy Creation Process

yaml

AI BRAIN ACTION:

"Now I have everything:

- Complete product understanding

- Clear goal

- Selected duration

I need to generate TWO complete strategies:

ONE with no paid ads (FREE)

ONE with paid ads included (PAID)

Both must be fully detailed, platform-optimized,

and tailored to this specific product and user."

MEMORY RETRIEVAL (Massive):

- Pull ALL platform intelligence (current priorities)

- Pull ALL global strategy memory for this product category

- Pull ALL user history (what worked for them before)

- Pull ALL content patterns currently trending

- Pull ALL benchmark data for this goal type

BEGIN GENERATION PROCESS:

FREE Strategy Generation - Complete Detail

yaml

AI BRAIN THINKS - FREE STRATEGY:

"FREE strategy means NO paid advertising budget.

Success depends entirely on organic reach.

I need to maximize algorithm favorability on every platform.

This requires:

- Highly engaging content (comments, saves, shares)

- Perfect platform-native formatting

- Strategic timing

- Community building

- Consistent posting

- No shortcuts - must earn every impression"

GENERATE FREE STRATEGY - STEP BY STEP:

STEP 1: PLATFORM SELECTION

Analyze which platforms offer best organic potential for this product:

For [product name] in [category]:

Facebook organic potential: [score]/10

Reason: [analysis of audience, groups, etc.]

Instagram organic potential: [score]/10

Reason: [analysis of visual appeal, Reels potential]

TikTok organic potential: [score]/10

Reason: [analysis of trend potential, demographic]

SELECT platforms (must choose at least 2, max 3):

Primary: [highest score platform]

Secondary: [second highest]

Tertiary: [third if score > 7]

STEP 2: CONTENT PILLAR DEVELOPMENT

Create 3 content pillars for organic strategy:

PILLAR 1: [Educational/Problem-Solving]

Focus: Teaching audience about [problem product solves]

Content types:

- How-to guides

- Tips and tricks

- Common mistakes to avoid

Example topics:

- "3 signs you need [product]"

- "How to [achieve result] in 5 minutes"

- "The #1 mistake people make with [problem]"

PILLAR 2: [Entertainment/Engagement]

Focus: Engaging content that gets shares/saves

Content types:

- Behind the scenes

- User generated content prompts

- Relatable situations

Example topics:

- "POV: You finally found the solution"

- "Tag someone who needs this"

- "Which [variation] are you? (quiz)"

PILLAR 3: [Social Proof/Trust Building]

Focus: Building credibility and desire

Content types:

- Customer testimonials
- Before/after (if applicable)
- Feature spotlights

Example topics:

- "Real results from real customers"
- "Why [influencer] loves [product]"
- "The feature customers love most"

STEP 3: PLATFORM-SPECIFIC CONTENT CALENDAR

Create detailed schedule for each platform:

PLATFORM: Instagram

Post frequency: [X] times per week

Optimal times (from user history + global data):

- Weekdays: [times]
- Weekends: [times]

Content mix:

- Reels: [X] per week
  - Topics: [specific reel topics from pillars]
  - Audio: trending in niche + original options
  - Hooks: [3 hook variations per reel]

- Carousel posts: [X] per week

  Topics: [specific carousel topics]

  Slide structure: [detailed per carousel]

- Stories: [X] per day

  Content: behind scenes, polls, Q&A, quick tips

  Interactive stickers: polls, questions, quizzes

Posting schedule (next 7 days):

Day 1 (Monday):

9am: Reel - [topic, hook, audio]

2pm: Story series - [topic]

6pm: Carousel - [topic]

Day 2 (Tuesday):

11am: Story - [topic]

4pm: Reel - [topic]

7pm: Engagement post - [topic]

[Continue for all 7 days]

PLATFORM: Facebook

Post frequency: [X] times per week

Optimal times: [times]

Content mix:

- Page posts: [X] per week

Topics: adapted from Instagram content

- Groups strategy:

Groups identified: [list 5-10 relevant groups]

Participation plan:

- Join groups and engage genuinely for 3 days

- Then share valuable content (not links)

- Build reputation before sharing product

- Native video: [X] per week

Topics: educational content in video format

PLATFORM: TikTok (if selected)

Post frequency: [X] times per week

Optimal times: [times]

Content mix:

- Trending audio participation: [X] per week

Current trending sounds to use: [list]

- Educational series: [topic series]

- Duet/Stitch opportunities: [with whom]

STEP 4: ENGAGEMENT AUTOMATION

Comment response strategy:

- Respond to ALL comments within 15 minutes (algorithm boost)

- Use saved replies for common questions

- Reply with questions to continue conversation

- Pin top comment that asks engaging question

DM response:

- Auto-respond with thank you + next step

- Human handoff for sales inquiries

STEP 5: GROWTH HACKS (SAFE)

Specific techniques for this product:

- [Technique 1 with implementation details]

- [Technique 2 with implementation details]

- [Technique 3 with implementation details]

STEP 6: EXPECTED OUTCOMES

Based on global data for similar products:

- Week 1-2: Building phase - [expected reach]

- Week 3-4: Growth phase - [expected reach]

- Week 5+: Compound phase - [expected reach]

By end of [duration] days:

- Total impressions: [range]

- Total clicks: [range]

- Engagement rate: [range]%

- Leads/conversions: [range] (if applicable)

PAID Strategy Generation - Complete Detail

yaml

AI BRAIN THINKS - PAID STRATEGY:

"PAID strategy includes sponsored ads.

This means faster results with budget.

I need to create:

- Same organic foundation (from FREE strategy)

- PLUS paid ad campaigns

- Budget allocation across platforms

- A/B testing structure

- Retargeting sequences

- Conversion optimization"

GENERATE PAID STRATEGY - STEP BY STEP:

STEP 1: ORGANIC FOUNDATION

Include COMPLETE FREE strategy as base

(Same content calendar, same engagement strategy)

This provides social proof for ads and retargeting audience

STEP 2: BUDGET RECOMMENDATION

Analyze optimal budget for this product/goal:

Based on:

- Industry average CPC: $[X]

- Goal: [goal]

- Duration: [days]

- Product price: $[price]

- Target ROAS: [X]x

Calculate:

Minimum viable daily budget: $[amount]

(enough to gather data)

Recommended daily budget: $[amount]

(optimal for results)

Maximum efficient daily budget: $[amount]

(before diminishing returns)

Total campaign budget at recommended: $[amount]

STEP 3: PLATFORM BUDGET ALLOCATION

Allocate budget based on platform potential:

Platform 1: [name]

Allocation: [percentage]%

Daily: $[amount]

Total: $[amount]

Reason: [analysis of why this platform gets this share]

Platform 2: [name]

Allocation: [percentage]%

Daily: $[amount]

Total: $[amount]

Reason: [analysis]

Platform 3: [name]

Allocation: [percentage]%

Daily: $[amount]

Total: $[amount]

Reason: [analysis]

STEP 4: CAMPAIGN STRUCTURE

For EACH platform, create campaign structure:

PLATFORM: Facebook

CAMPAIGN 1: Cold Audience (60% of platform budget)

Objective: Conversions/Sales

Daily budget: $[amount]

Ad Set 1: Lookalike Audience

Source: [best source - email list, pixel, etc.]

Size: 1-3% lookalike

Bid strategy: Lowest cost

Ad Set 2: Interest Targeting

Interests: [list 5-10 interests related to product]

Demographics: [age, gender, location]

Ad Set 3: Broad Targeting

No interests, let algorithm learn

Geographic: [locations]

Ad Creatives (3 variations):

Creative A:

Image: [description]

Headline: [text]

Primary text: [text]

CTA: [button]

Creative B:

[similar detail]

Creative C:

[similar detail]

CAMPAIGN 2: Retargeting (30% of platform budget)

Objective: Conversions

Daily budget: $[amount]

Ad Set 1: Website Visitors (last 30 days)

Ad Set 2: Engaged Social Users

Ad Set 3: Video Viewers (50%+ watched)

Ad Creatives (2 variations):

Different messaging - reminder/urgency

CAMPAIGN 3: Testing (10% of platform budget)

Objective: Traffic/Engagement

Daily budget: $[amount]

Test different:

- Audiences

- Creatives

- Placements

PLATFORM: Instagram

(Similar structure, integrated with Facebook)

PLATFORM: TikTok

Campaign structure specific to TikTok:

- Spark Ads (boost organic posts)

- In-Feed Ads

- Hashtag Challenge (if budget allows)

STEP 5: AD CREATIVE GENERATION

For EACH ad variation needed:

Use Nano Banana Pro for images:

Prompt: "Professional product photography of [product name].
[description]. Clean background. High quality.
Commercial style. [specific angle/variation]"

Generate variations:

- Lifestyle: product in use

- Studio: clean product shot

- With text overlay: headline included

- Comparison: before/after if applicable

For video ads:

- Script: [15-30 second script]
- Hook (first 3 seconds): [attention grabber]
- Body: [value proposition]
- CTA: [clear next step]

STEP 6: CONVERSION TRACKING

Set up tracking:

- Pixel/API integration
- UTM parameters for all URLs
- Conversion events:
  * Purchase (primary)
  * Add to cart
  * Initiate checkout
  * Lead (if applicable)

ROAS calculation:

- Track revenue per campaign/ad set

STEP 7: A/B TESTING PLAN

Continuous testing structure:

- Week 1: Test 3 creatives (find winner)
- Week 2: Scale winner, test 2 new against it
- Week 3: Test audiences against winning creative
- Week 4: Test offers/pricing messaging

STEP 8: EXPECTED OUTCOMES

Based on budget + industry benchmarks:

With $[total] budget over [days] days:

- Total impressions: [range]
- Total clicks: [range]
- CTR: [range]%
- CPC: $[range]
- Conversions: [range]
- Conversion rate: [range]%
- Cost per conversion: $[range]
- Estimated revenue: $[range]
- Estimated ROAS: [range]x

Timeline:

Days 1-3: Learning phase (algorithm learning)

Days 4-7: Optimization phase (adjusting)

Days 8+: Scaling phase (performance stabilizes)

SECTION 8: COMPLETE STRATEGY COMPARISON PRESENTATION

Presenting Both Strategies to User

yaml

AI BRAIN ACTION:

"Both strategies are fully generated.

Now I need to present them to user in clear comparison.

Help them understand the trade-offs."

OUTPUT TO USER:

"=== YOUR TWO STRATEGY OPTIONS ===

I've created two complete strategies for [product name].

FREE STRATEGY | PAID STRATEGY

💰 BUDGET | $0 (no ad spend) | $[total] recommended

📈 REACH (30 days) | [range] organic | [range] total

⚡ SPEED | Gradual (weeks) | Immediate (days)

🔄 SUSTAINABILITY | Long-term building | Requires budget

📊 CONFIDENCE | 75% success rate | 89% success rate

| (based on similar) | (based on similar)

📋 STRATEGY COMPONENTS

CONTENT CREATED:

FREE: [X] pieces total

• [X] Reels

• [X] Carousel posts

• [X] TikTok videos

• [X] Stories per week

PAID: Same organic content PLUS

• [X] paid ad creatives

• [X] retargeting sequences

• A/B testing structure

PLATFORMS USED:

FREE: [platforms]

PAID: [platforms] (with ads)

TIMELINE:

FREE:

Week 1-2: Building audience

Week 3-4: Growth begins

Week 5+: Compound growth

PAID:

Day 1-3: Learning

Day 4-7: Optimizing

Day 8+: Scaling

🧠 AI INSIGHTS

FREE STRATEGY ANALYSIS:

This will work because:

• Your product photos are high-quality (Reels potential)

• Your audience is active in Facebook Groups (I found 8)

• Educational content performs well in your category

• Current platform algorithms favor [factors]

However:

• Results will take 2-3 weeks to appear

• Maximum reach is limited by algorithm

• Requires consistent effort

PAID STRATEGY ANALYSIS:

This will work because:

• Your price point [$price] supports ad spend economics

• Retargeting can capture interested visitors

• Lookalike audiences exist from [data source]

• Current CPC in your industry is $[X] (affordable)

Expected performance:

• Break-even ROAS: [X]x

• Projected ROAS: [X]x

• Time to first sale: [X] days

WHICH STRATEGY WOULD YOU LIKE TO EXECUTE?

[1] LAUNCH FREE STRATEGY

No budget required. Builds organically.

[2] LAUNCH PAID STRATEGY

Requires $[total] budget. Faster results.

[3] CUSTOMIZE BOTH

Adjust parameters before deciding.

[4] COMPARE SIDE-BY-SIDE AGAIN

[5] SAVE BOTH FOR LATER

SECTION 9: COMPLETE EXECUTION FLOW

If User Selects FREE Strategy

yaml

USER SELECTS: FREE Strategy

AI BRAIN ACTION:

"User approved FREE strategy. Begin execution."

STEP 1: SAVE STRATEGY TO DATABASE

strategy_record = {

strategy_id: generate_uuid(),

user_id: user_id,

strategy_name: "[product name] - [goal] FREE Campaign",

strategy_type: "product",

strategy_version: "free",

goal: goal,

duration_days: duration,

start_date: current_date,

```
  end_date: current_date + duration,
  status: "active",
  product_id: product_id,
  platform_data: {
    instagram: {active: true, organic_only: true},
    facebook: {active: true, organic_only: true},
    tiktok: {active: boolean, organic_only: true}
  },
  content_calendar: [full calendar object],
  growth_hacks: [list of techniques],
  expected_outcomes: [range object],
  created_at: timestamp
}
```

STEP 2: SET UP MONITORING

Create monitoring schedule:

- Check performance every 6 hours
- Log all metrics to database
- Compare to expected outcomes
- Flag deviations

STEP 3: BEGIN CONTENT SCHEDULING

For next 7 days:

- Schedule all posts at optimal times
- Prepare all assets (already generated)
- Set reminders for engagement responses

STEP 4: INITIALIZE ENGAGEMENT AUTOMATION

- Set up comment monitoring

- Create saved reply templates

- Schedule daily engagement tasks

STEP 5: NOTIFY USER

OUTPUT:

"✅ FREE STRATEGY LAUNCHED SUCCESSFULLY!

Your [product name] campaign is now active.

=== WHAT'S HAPPENING NOW ===

• Content is scheduled for the next 7 days

• First post goes live [time] on [platform]

• I'll monitor performance every 6 hours

• You'll receive daily updates at 9am

=== FIRST 24 HOURS ===

[TODAY]:

[time]: [platform] - [content description]

[time]: [platform] - [content description]

Engagement monitoring begins immediately

[TOMORROW]:

[schedule summary]

=== WHAT YOU NEED TO DO ===

✅ Nothing right now - I'm handling everything

✅ Check your notifications for updates

✅ Reply to comments if you want (I'll handle most)

✅ That's it! Your strategy is running.

=== FIRST UPDATE WILL ARRIVE ===

Tomorrow at 9am with your Day 1 results.

Want to see the full content calendar?

[1] Yes, show me everything

[2] No, I trust you

[3] I want to make some adjustments"

If User Selects PAID Strategy

yaml

USER SELECTS: PAID Strategy

AI BRAIN ACTION:

"User approved PAID strategy. Need to confirm budget and payment."

STEP 1: CONFIRM BUDGET

OUTPUT:

"You've selected the PAID strategy which requires ad spend.

Recommended budget: $[total] over [duration] days

($[daily] per day average)

How would you like to proceed?

[1] Use recommended budget: $[total]

[2] Use smaller budget: $[custom] (I'll adjust strategy)

[3] Use larger budget: $[custom] (I'll scale up)

[4] Enter custom daily budget"

[USER SELECTS/ENTERS BUDGET]

STEP 2: ADJUST STRATEGY TO BUDGET

IF budget different from recommended:

- Recalculate platform allocation

- Adjust campaign structure

- Update expected outcomes

- Confirm with user

STEP 3: SAVE STRATEGY TO DATABASE

strategy_record = {

strategy_id: generate_uuid(),

user_id: user_id,

strategy_name: "[product name] - [goal] PAID Campaign",

strategy_type: "product",

strategy_version: "paid",

goal: goal,

duration_days: duration,

start_date: current_date,

```
  end_date: current_date + duration,
  status: "active",
  product_id: product_id,
  budget_total: confirmed_budget,
  budget_daily: daily_budget,
  platform_data: {
    instagram: {active: true, organic: true, paid: true, budget: amount},
    facebook: {active: true, organic: true, paid: true, budget: amount},
    tiktok: {active: boolean, organic: true, paid: boolean, budget: amount}
  },
  campaign_structure: [full campaign object],
  ad_creatives: [array of creative objects],
  content_calendar: [full calendar object],
  expected_outcomes: [range object with budget factored],
  created_at: timestamp
}

STEP 4: SET UP PAYMENT/BILLING
- Connect to user's payment method
- Set up daily budget caps
- Configure auto-recharge if needed

STEP 5: SET UP AD ACCOUNTS
- Connect to Facebook Business Manager
- Connect to TikTok Business account
- Verify pixel/tracking is installed
```

STEP 6: LAUNCH CAMPAIGNS

- Submit all ads for review

- Monitor approval status

- Begin organic content schedule

STEP 7: NOTIFY USER

OUTPUT:

"✅ PAID STRATEGY LAUNCHED SUCCESSFULLY!

Your [product name] campaign is now active with ads.

=== WHAT'S HAPPENING NOW ===

• Ads submitted for review (1-24 hours for approval)

• Organic content scheduled

• Budget allocated: $[daily]/day

• I'll monitor and optimize continuously

=== STATUS BY PLATFORM ===

Facebook: Ads pending review

Instagram: Ads pending review (linked to Facebook)

TikTok: [status]

=== FIRST 24 HOURS ===

[Until ads approved]:

Organic content is running

Building initial engagement

[After approval]:

Ads begin delivering

Data collection starts

I'll begin optimization

=== WHAT YOU NEED TO DO ===

✅ Ensure your pixel is firing (I'll verify)

✅ Check for any ad disapprovals (I'll notify you)

✅ Nothing else - I'm handling optimization

=== YOUR DASHBOARD ===

You can track everything in real-time:

• Spend: [link]

• Performance: [link]

• ROAS: [link]

=== FIRST UPDATE WILL ARRIVE ===

In 24 hours with your Day 1 results including:

- Ad approvals status

- First performance metrics

- Optimization suggestions"

SECTION 10: COMPLETE ONGOING OPTIMIZATION LOOP

The 6-Hour Optimization Cycle

yaml

FOR EVERY ACTIVE STRATEGY:

Every 6 hours, the AI brain runs this complete cycle:

TIME: [current time]

STRATEGY: [strategy_id]

USER: [user_id]

STEP 1: GATHER PLATFORM INTELLIGENCE

"What's changed in the last 6 hours?"

Check:

- Official platform announcements

- Industry news feeds

- Top performing content in [user's category]

- Trending audio/hashtags

- Algorithm shift indicators

Detect:

- New priority signals

- Emerging trends

- Declining formats

- Opportunities

STORE:

platform_intelligence_snapshot = {

timestamp: current_time,

facebook: {changes_detected: boolean, details: {...}},

instagram: {...},

tiktok: {...},

global_trends: [...]

}

STEP 2: ANALYZE STRATEGY PERFORMANCE

"How is this strategy performing against expectations?"

Pull metrics for last 6 hours:

- Impressions (by platform)

- Clicks (by platform)

- Engagement (comments, saves, shares)

- Conversions (if applicable)

- Spend (if paid)

- ROAS (if paid)

Compare to:

- Expected performance at this point

- Previous 6-hour period

- Same time yesterday

- Industry benchmarks

Calculate:

- Performance score (0-100)

- Trend direction (↑/↓/→)

- Anomalies detected

STORE:

performance_snapshot = {

timestamp: current_time,

metrics: {...},

comparisons: {...},

score: number,

trend: direction,

anomalies: [...]

}

STEP 3: IDENTIFY OPTIMIZATION OPPORTUNITIES

"Based on platform intelligence and performance,

what should I optimize?"

For EACH platform:

Check for alignment with current priorities

- Is content format matching what platform favors?

- Is posting time optimal?

- Is engagement strategy working?

Check for underperforming elements

- Which ad creative has lowest CTR?

- Which post type has lowest engagement?

- Which audience is not responding?

Check for emerging opportunities

- New trending audio to use

- New hashtag to include

- New content format to try

```
GENERATE optimization candidates:
  Candidate 1:
    type: "format_change"
    platform: "instagram"
    action: "Convert underperforming carousel to Reel"
    reason: "Instagram favoring Reels 2.5x this week"
    expected_impact: "+30% engagement"
    effort: "low"
    safety_check: "passed"

  Candidate 2:
    type: "timing_adjustment"
    platform: "facebook"
    action: "Shift posting from 2pm to 5pm"
    reason: "Audience activity data shows 5pm peak"
    expected_impact: "+15% reach"
    effort: "low"
    safety_check: "passed"

  Candidate 3:
    type: "creative_refresh"
    platform: "all"
    action: "Generate 2 new image variations"
    reason: "Current images CTR dropped 10%"
    expected_impact: "Recover CTR"
    effort: "medium"
```

safety_check: "passed"

Candidate 4:

type: "budget_shift"

platform: "facebook"

action: "Move 20% budget from cold to retargeting"

reason: "Retargeting ROAS 3x higher"

expected_impact: "+15% overall ROAS"

effort: "medium"

safety_check: "passed (within limits)"

STEP 4: CATEGORIZE OPTIMIZATIONS BY TIER

TIER 1 - Auto-apply (Micro-optimizations):

Criteria:

- Low risk

- Reversible

- Clearly positive

- Within platform guidelines

Examples:

- Post timing shifts

- Hashtag updates

- Minor caption tweaks

- Comment reply templates

TIER 2 - Auto-apply (Format optimizations):

Criteria:

- Platform-native format changes

- No new creative needed

- Follows platform best practices

Examples:

- Static post → Reel conversion

- Video length adjustment

- Carousel creation from images

TIER 3 - Suggest only (Content changes):

Criteria:

- Requires new creative

- Changes messaging

- User may have opinion

Examples:

- New ad copy variations

- New image generation

- Video script changes

TIER 4 - Suggest only (Strategic changes):

Criteria:

- Changes budget allocation

- Adds/removes platforms

- Shifts audience targeting

Examples:

- Budget reallocation

- New audience testing

- Goal adjustment

TIER 5 - User decision only (Major pivots):

Criteria:

- Significant strategy change

- Requires user approval by design

Examples:

- Switching from FREE to PAID

- Major budget increase

- Product focus change

STEP 5: APPLY TIER 1-2 OPTIMIZATIONS AUTOMATICALLY

For EACH Tier 1-2 candidate:

- Log the optimization

- Apply the change

- Set reminder to measure impact in 24h

- Update strategy record

RECORD:

optimization_applied = {

timestamp: current_time,

candidate_id: id,

action_taken: description,

expected_impact: prediction,

measurement_time: current_time + 24h

}

STEP 6: PREPARE TIER 3-5 SUGGESTIONS FOR USER

For EACH Tier 3-5 candidate:

- Create clear explanation

- Generate expected impact

- Prepare any needed assets (if applicable)

- Add to user notification queue

STEP 7: CHECK FOR ALERTS

Check for:

- Budget running low (80% spent)

- Ad disapprovals

- Pixel not firing

- Significant performance drop

- Platform outages

IF alert exists:

- Create urgent notification

- Add to top of user queue

STEP 8: UPDATE LEARNING SYSTEMS

For EACH optimization applied in last 24h:

- Measure actual impact

- Compare to expected

- Store in learning database

- Update global patterns

Update user memory:

- Add to performance history

- Refine user preferences

- Update optimal timing models

Update platform memory:

- Add to algorithm pattern data

- Refine priority weightings

STEP 9: PREPARE USER COMMUNICATION

Compile for next user notification:

- Performance summary

- Optimizations applied

- Suggestions ready

- Alerts (if any)

- Next steps

Schedule based on user preference:

- IF user wants daily: queue for 9am

- IF user wants real-time: send now if significant

- IF user wants weekly: add to weekly digest

STEP 10: WAIT 6 HOURS, REPEAT

SECTION 11: COMPLETE USER NOTIFICATION SYSTEM

Daily Performance Report

yaml

EVERY DAY AT 9AM (user's local time):

AI BRAIN COMPILES:

"=== YOUR DAILY STRATEGY UPDATE ===

Good morning [username]! Here's how your campaigns performed in the last 24 hours.

📊 OVERALL PERFORMANCE

Strategy: [product name] - [goal] ([FREE/PAID])

Day [X] of [total]

TODAY'S METRICS:

Impressions: [number] (↑/↓ vs yesterday)

Clicks: [number] (↑/↓)

CTR: [percentage]% (↑/↓)

Leads: [number] (↑/↓)

Conversions: [number] (↑/↓)

Spend: $[amount] (↑/↓)

Revenue: $[amount] (↑/↓)

ROAS: [number]x (↑/↓)

CUMULATIVE TO DATE:

Total Impressions: [number]

Total Clicks: [number]

Total Conversions: [number]

Total Spend: $[amount]

Total Revenue: $[amount]

Overall ROAS: [number]x

📈 PLATFORM BREAKDOWN

FACEBOOK:

Today: [metrics]

Best performing content: "[post/ad description]"

Note: [AI insight]

INSTAGRAM:

Today: [metrics]

Best performing content: "[post description]"

Note: [AI insight]

TIKTOK:

Today: [metrics]

Best performing content: "[video description]"

Note: [AI insight]

🤖 OPTIMIZATIONS APPLIED (Last 24h)

✅ [Time]: [optimization description]

Result: [impact if measured, "measuring" if not]

✅ [Time]: [optimization description]

Result: [impact]

💡 SUGGESTIONS FOR YOUR REVIEW

I have [number] suggestions ready for you:

1. [Suggestion title]

Why: [reason]

Impact: [expected]

Effort: [low/medium/high]

[Link to review]

2. [Suggestion title]

Why: [reason]

Impact: [expected]

Effort: [low/medium/high]

[Link to review]

🔮 COMING UP TODAY

Today's scheduled content:

• [time] - [platform] - [content description]

• [time] - [platform] - [content description]

• [time] - [platform] - [content description]

Today's optimization focus:

• [focus area]

⚠️ ANY ISSUES?

[None, or list of issues needing attention]

---

[1] View full dashboard

[2] Review suggestions

[3] Adjust strategy

[4] Reply with questions"

Real-Time Alert (Significant Event)

yaml

WHEN significant event occurs:

EVENT TYPES:

- Ad approval/rejection

- Performance spike (>50% above normal)

- Performance drop (>30% below normal)

- Budget threshold reached (80%, 100%)

- Platform algorithm shift detected

- New opportunity identified

- First conversion achieved

AI BRAIN SENDS:

"🔔 [ALERT TYPE] - [STRATEGY NAME]

[Timestamp]

[Description of what happened]

Example: "Your Facebook ad was just approved and is now delivering!"

Example: "Performance spike detected! Your Instagram Reel reached 2,500 people organically in the last 2 hours - 3x normal rate."

Example: "Budget alert: You've spent 80% of today's budget ($40 of $50). Performance is strong (ROAS 3.2x). Would you like to increase today's cap?"

[Suggested next action]

[1] View details

[2] Take suggested action

[3] Dismiss"

SECTION 12: COMPLETE FOLLOW-UP AND MEMORY DEMONSTRATION

Example: User Returns After Strategy Completes

yaml

USER: Returns to AdRoom after strategy ends

AI BRAIN RETRIEVES MEMORY:

- User's completed strategy

- All performance data

- All optimizations applied

- What worked, what didn't

- User's preferences from history

AI BRAIN GREETS:

"Welcome back [username]! 👋

I see your [product name] strategy completed yesterday.

Let me give you the final results and my learnings.

=== FINAL STRATEGY RESULTS ===

Strategy: [product name] - [goal] ([FREE/PAID])

Duration: [X] days (completed)

FINAL METRICS:

Total Impressions: [number]

Total Clicks: [number]

Total Conversions: [number]

Total Spend: $[amount]

Total Revenue: $[amount]

Final ROAS: [number]x

VS EXPECTATIONS:

• Impressions: [X]% of expected

• Conversions: [X]% of expected

• ROAS: [X]% of expected

=== WHAT WORKED BEST ===

Based on my analysis:

1. [Top performing element]

   Why it worked: [analysis]

   You should do more of this.

2. [Second best element]

   Why it worked: [analysis]

=== WHAT DIDN'T WORK ===

1. [Underperforming element]

   Why it failed: [analysis]

   Avoid this in future.

2. [Another underperformer]

=== KEY LEARNINGS FOR FUTURE ===

For your future [product category] campaigns:

• [Learning 1]

• [Learning 2]

• [Learning 3]

I've stored all these learnings in your profile.

Next time you create a similar strategy, I'll apply them automatically.

=== WHAT'S NEXT? ===

Would you like to:

[1] Create a new strategy for [product name] (with learnings applied)

[2] Create a strategy for a different product

[3] View detailed final report

[4] Duplicate this strategy with adjustments"

USER: "Create new strategy for same product"

AI BRAIN:

"I remember [product name] from your previous campaign.

Here's what I know:

• Product: [details]

• Previous goal: [goal]

• Previous performance: [summary]

• What worked: [summary]

• What didn't: [summary]

For this new strategy, I recommend:

• Different goal: [new goal] (because [reason])

• Different platforms: [platforms] (because [reason])

• Different content focus: [focus] (because [reason])

Based on everything I learned, this new strategy

could perform [X]% better than your last one.

Shall I generate it?"

Example: User Asks About Specific Optimization

yaml

USER: "Why did you change my posting time?"

AI BRAIN RETRIEVES MEMORY:

- The optimization in question

- Data that led to decision

- Results after change

AI BRAIN RESPONDS:

"Great question! Let me explain the posting time change.

On [date] at [time], I shifted your Instagram posts from 2pm to 5pm.

WHY I MADE THIS CHANGE:

I was monitoring your audience activity patterns and noticed:

• 70% of your engagement was happening between 4-7pm

• Your 2pm posts were getting only 60% of expected reach

• Platform data shows your target audience ([audience]) is most active 5-8pm

I tested this hypothesis by:

• Checking 7 days of your engagement data

• Comparing to industry benchmarks for your category

• Analyzing when your competitors are posting

THE RESULT:

After the change:

• Reach increased 35%

• Engagement increased 42%

• Your best-performing post ever was last Thursday at 5:15pm

Would you like me to:

[1] Show you the before/after data

[2] Explain other optimizations I've made

[3] Let you override future timing decisions"

SECTION 13: COMPLETE ERROR HANDLING AND EDGE CASES

Ad Rejection Handling

yaml

EVENT: Ad rejected by platform

AI BRAIN DETECTS:

- Rejection notification from platform

- Reason provided

AI BRAIN ACTION:

- Analyze rejection reason

- Determine fix

- Generate replacement

- Notify user

OUTPUT:

"⚠️ AD REJECTION NOTICE

Platform: Facebook

Ad: [ad description]

Rejection reason: [platform reason, e.g., "Text overlay covers more than 20% of image"]

I've analyzed the issue and created a fix:

• [Explanation of fix, e.g., "Reduced text size and moved to bottom 20%"]

New ad created and resubmitted for review.

Estimated approval time: 1-24 hours.

No action needed from you.

[1] View rejected ad

[2] View new ad

[3] Pause this ad instead"

Budget Exhaustion Early

yaml

EVENT: Paid campaign spending faster than expected

AI BRAIN DETECTS:

- 80% of daily budget spent by 2pm

- Performance is strong (ROAS > target)

AI BRAIN ACTION:

- Calculate if increasing budget makes sense

- Check remaining daily cap

- Prepare recommendation

OUTPUT:

"💰 BUDGET ALERT

Your [product name] campaign has spent 80% of today's budget ($40 of $50) with 6 hours remaining.

Current performance: ROAS 3.2x (above target of 2.5x)

RECOMMENDATION:

Increase today's budget by $20 to capture more conversions.

Estimated additional revenue: $60-80 at current ROAS.

Would you like to:

[1] Auto-increase budget when similar patterns occur

[2] Increase today's budget by $20

[3] Keep current budget (ads may pause early)

[4] Set new daily cap permanently"

No Performance Data

yaml

EVENT: New strategy, first 24 hours, no significant data

USER: "Why aren't I seeing results?"

AI BRAIN RESPONDS:

"I understand you're eager to see results! Here's what's happening:

Your [product name] strategy launched [time] ago.

CURRENT STATUS:

• Organic content: Posted as scheduled

• Paid ads (if applicable): [status]

• Data collection: In progress

WHY NO RESULTS YET:

For FREE strategies:

• Platforms need time to recognize your content

• First 48-72 hours are "learning phase"

• Algorithm is testing who to show your content to

• Typical first result appears Day 3-4

For PAID strategies:

• Ads are in [learning/review] phase

• Facebook needs ~50 conversions to optimize

• Currently gathering initial data

• First meaningful data usually Day 2-3

WHAT I'M DOING:

• Monitoring every 6 hours

• Ready to optimize as soon as data appears

• No changes yet (need baseline first)

WHEN TO EXPECT FIRST RESULTS:

• First engagement: [timeframe]

• First meaningful data: [timeframe]

• First optimization: [timeframe]

I'll notify you immediately when:

• First engagement occurs

• First conversion happens

• Any optimization opportunity appears

Anything else you'd like to know?"

SECTION 14: COMPLETE SYSTEM SUMMARY

What AdRoom Now Does End-to-End

yaml

1. REMEMBERS EVERYTHING

- Every user, every strategy, every result

- Every platform algorithm change

- Every pattern across all campaigns

- Learns and improves continuously

2. UNDERSTANDS COMPLETELY

- Products through image scanning + user input

- User goals and preferences

- Platform landscape in real-time

- What works, what doesn't, and why

3. CREATES TWO STRATEGIES

- FREE: No ad spend, pure organic growth

- PAID: Includes sponsored ads, faster results

- Both fully detailed, platform-optimized

- Both tailored to this specific product/user

4. EXECUTES AUTONOMOUSLY

- Schedules all content

- Manages all ad campaigns

- Monitors 24/7

- Optimizes every 6 hours

5. OPTIMIZES INTELLIGENTLY

- Applies micro-optimizations automatically

- Suggests major improvements

- Learns from every change

- Stays within platform guidelines

6. COMMUNICATES NATURALLY

- Daily updates

- Real-time alerts

- Answers questions

- Explains decisions

7. LEARNS CONTINUOUSLY

- From every campaign

- From every user

- From every platform shift

- Gets smarter over time

SECTION 15: PLATFORM INTELLIGENCE ENGINE (IPE) - COMPLETE AI-POWERED SYSTEM

IPE Architecture Overview

yaml

PLATFORM INTELLIGENCE ENGINE:

Status: Always running, 24/7/365

Model: Dedicated AI instance (separate from main AdRoom brain)

Purpose: Continuously monitor, analyze, and predict platform behavior

Components:

1. PLATFORM MONITOR (Real-time data collection)

2. ALGORITHM ANALYZER (Pattern detection)

3. TREND PREDICTOR (Future forecasting)

4. OPPORTUNITY DETECTOR (Actionable insights)

5. RISK ASSESSOR (Flag potential issues)

6. INTELLIGENCE DISPATCHER (Send to main brain)

IPE: Platform Monitor - Complete Detail

yaml

PLATFORM MONITOR:

Runs: Every 15 minutes

AI Model: Custom-trained monitoring model + GPT-5 for analysis

MONITORED SOURCES:

OFFICIAL PLATFORM SOURCES:

Facebook:

- Meta Business Blog (RSS feed, scraped every 15 min)
- Facebook Developers Blog
- Meta Newsroom
- Facebook Business Help Center (updates section)
- Mark Zuckerberg's official channels
- Meta Investor Relations (announcements)

Instagram:

- Instagram Blog
- Instagram Creators Account
- Instagram Business Account
- Meta Business Blog (Instagram section)

TikTok:

- TikTok Business Blog
- TikTok Newsroom
- TikTok For Business Twitter
- TikTok Creator Portal

General:

- All platform status pages (outages)
- API changelogs
- Developer documentation updates
- Terms of Service change logs

INDUSTRY SOURCES:

News Sites:

- SocialMediaToday (scraped every hour)
- TechCrunch (social media section)
- The Verge (social media)
- Mashable (social media)
- AdAge (digital marketing)
- MarketingWeek

Blogs:

- Buffer Blog
- Hootsuite Blog
- Sprout Social Blog
- Later Blog
- HubSpot Marketing Blog

Influencers:

- Top 50 social media experts (Twitter/LinkedIn feeds)
- Platform-specific leakers/informants
- Former platform employees who now consult

Communities:

- r/socialmedia (Reddit - monitored every hour)
- r/facebook
- r/instagram
- r/tiktok

- GrowthHackers community

- Inbound.org

- Digital marketing forums (top 20)

DATA SOURCES:

- Platform APIs (public data endpoints)

- Ad library APIs (Facebook Ad Library, TikTok Ad Library)

- Trending hashtags APIs

- Trending audio APIs

- Competitor ad monitoring

- Cross-platform performance aggregators

MONITORING PROCESS:

AI BRAIN (IPE Monitor) THINKS:

"Every 15 minutes, I need to check ALL these sources.

For each source, I need to:

1. Detect what's changed since last check

2. Flag anything significant

3. Categorize the type of change

4. Assess potential impact on AdRoom strategies

5. Store for analysis"

IPE: Algorithm Analyzer - Complete Detail

yaml

ALGORITHM ANALYZER:

Runs: Every hour (after monitor collects data)

AI Model: Pattern recognition model + Gemini 2.5 Pro for deep analysis

ANALYSIS PROCESS:

STEP 1: DETECT ALGORITHM SHIFTS

"Analyze all new data from last hour.

Look for patterns indicating algorithm changes:

PATTERN TYPES:

Type A: Explicit Announcements

- Platform officially announces change

- Example: "Introducing new ranking factors"

Confidence: 100%

Type B: Industry Consensus

- Multiple trusted sources report same pattern

- Example: "Everyone noticing Reels get 3x reach"

Confidence: 80-90%

Type C: Data Pattern Detection

- Cross-reference 10,000+ AdRoom campaigns

- Detect sudden performance shifts across users

- Example: "All Facebook campaigns dropped 20% reach on Tuesday"

Confidence: 70-85%

Type D: Early Signals

- Isolated reports from power users

- Small but consistent pattern

- Example: "3 experts noticed changes in comment weighting"

Confidence: 50-60%"

STEP 2: QUANTIFY IMPACT

"For each detected shift:

- What's the magnitude? (1-10 scale)

- What's the direction? (positive/negative for what content)

- What content types are affected?

- What industries are affected?

- What's the confidence level?

- When did it start?

- Is it confirmed or still emerging?"

STEP 3: UPDATE PLATFORM PRIORITY MODEL

"Based on detected shifts, update priority weightings:

FACEBOOK PRIORITIES (before/after):

Video weight: 8 → 9 (+1)

Native content: 7 → 8 (+1)

Comments weight: 6 → 7 (+1)

Groups weight: 5 → 6 (+1)

Stories weight: 4 → 4 (no change)

Live video: 3 → 3 (no change)

INSTAGRAM PRIORITIES:

Reels weight: 9 → 9 (no change)

Saves weight: 7 → 8 (+1)

Shares weight: 8 → 9 (+1)

Original audio: 6 → 7 (+1)

Carousel weight: 5 → 5 (no change)

TIKTOK PRIORITIES:

Trending audio: 9 → 9 (no change)

Completion rate: 9 → 9 (no change)

New creator boost: 5 → 7 (+2 - detected new pattern)

Duet weight: 6 → 7 (+1)

Caption keywords: 4 → 5 (+1)"

STEP 4: GENERATE ALGORITHM REPORT

"Create comprehensive report for main AdRoom brain:

```
{
  timestamp: current_time,
  platforms: {
    facebook: {
      shifts_detected: true,
      changes: [
        {
          type: "explicit_announcement",
          description: "Facebook prioritizing longer videos",
          source: "Meta Business Blog",
          confidence: 100,
          impact_score: 8,
```

```
        affected_content: ["video", "native_uploads"],
        recommended_action: "Increase video length to 90s+"
      },
      {
        type: "data_pattern",
        description: "Comment engagement weight increased",
        source: "AdRoom campaign analysis",
        confidence: 85,
        impact_score: 7,
        affected_content: ["all posts"],
        recommended_action: "Add comment prompts to all posts"
      }
    ],
    current_priorities: {...}
  },
  instagram: {...},
  tiktok: {...}
},
global_trends: [...],
recommendations_summary: "..."
}"
```

IPE: Trend Predictor - Complete Detail

yaml

```
TREND PREDICTOR:
  Runs: Every 6 hours
  AI Model: Predictive analytics model + historical pattern matching
```

PREDICTION PROCESS:

STEP 1: ANALYZE HISTORICAL PATTERNS

"Look back at 3 years of platform data:

- When do algorithms typically change?

- What seasonal patterns exist?

- What preceded major shifts?

- What's the typical cycle for each platform?"

STEP 2: DETECT LEADING INDICATORS

"What signals usually predict changes?

- Increased platform testing

- Executive statements about priorities

- Industry rumors that later proved true

- Competitor platform moves

- Economic factors affecting ad revenue"

STEP 3: GENERATE PREDICTIONS

"Based on all data, predict:

SHORT-TERM (Next 7 days):

Facebook: 70% chance of video push announcement

Evidence: Meta investor call mentioned video focus

Impact: High

Prepare by: Creating more video content

Instagram: 85% chance of Reels algorithm update

Evidence: Testing spotted in 5 countries

Impact: Medium

Prepare by: Monitoring Reels performance

TikTok: 60% chance of new creator monetization

Evidence: Job postings for creator economy team

Impact: Low for advertisers

MEDIUM-TERM (Next 30 days):

Facebook: Holiday algorithm adjustments (annual pattern)

Instagram: Shopping feature changes

TikTok: New ad formats

LONG-TERM (Next 90 days):

Major platform shifts based on industry trends"

STEP 4: CREATE PREDICTION REPORT

"Send to main AdRoom brain:

PREDICTION REPORT:

URGENT (Act within 24h):

- [Prediction with high confidence and imminent impact]

WATCH (Monitor closely):

- [Predictions to track]

PLAN (Prepare strategies):

- [Longer-term predictions to factor into planning]"

IPE: Opportunity Detector - Complete Detail

yaml

OPPORTUNITY DETECTOR:

Runs: Every 3 hours

AI Model: Opportunity identification model + creative optimization engine

DETECTION PROCESS:

STEP 1: ANALYZE PLATFORM GAPS

"What's working that most people aren't doing?

Scan:

- Top 1% performing content across all platforms

- What patterns emerge?

- What's different from average content?

- What can AdRoom users leverage?"

STEP 2: IDENTIFY UNDERSERVED NICHES

"For each industry/category:

- What content types are underused?

- What audiences are underserved?

- What platforms have gaps?

Example findings:

- "Fitness brands underusing TikTok duets"

- "B2B companies ignoring Instagram Stories"

- "Local businesses not using Facebook Events"

- "E-commerce brands missing Reels shopping tags""

STEP 3: GENERATE OPPORTUNITY RECOMMENDATIONS

"For each opportunity found:

OPPORTUNITY 1:

title: "Early adopter advantage: New Instagram Collabs feature"

platform: instagram

description: "Instagram is testing Collabs posts where two accounts co-author. Early adopters getting 3x reach."

implementation: "Create content with complementary brand"

effort: medium

potential_impact: high

time_sensitive: true (window closing in ~2 weeks)

confidence: 85%

OPPORTUNITY 2:

title: "Underused: Facebook Groups for [user's industry]"

platform: facebook

description: "Only 12% of brands in your industry use Groups strategy, but those that do see 40% higher engagement."

implementation: "Join top 10 Groups, participate for 1 week, then share valuable content"

effort: medium

potential_impact: medium

time_sensitive: false

confidence: 90%"

STEP 4: PRIORITIZE OPPORTUNITIES

"Score each opportunity:

- Impact potential (1-10)

- Ease of implementation (1-10)

- Time sensitivity (1-10)

- Confidence (1-10)

Sort by composite score.

Send top 5 to main AdRoom brain for user strategies."

IPE: Risk Assessor - Complete Detail

yaml

RISK ASSESSOR:

Runs: Every hour

AI Model: Risk detection + compliance monitoring

RISK DETECTION PROCESS:

STEP 1: MONITOR PLATFORM GUIDELINES

"Track changes to:

- Terms of Service

- Community Guidelines

- Advertising Policies

- Branded Content Policies

For each change:

- What's the exact new rule?

- When does it take effect?

- What content is affected?

- What's the penalty for violation?"

STEP 2: DETECT ENFORCEMENT PATTERNS

"What are platforms actually enforcing?

Analyze:

- Ad rejection patterns across AdRoom users

- Account suspension reports

- Content removal notices

- Shadowbanning indicators

Identify:

- "Facebook strictly enforcing text overlay limits this week"

- "TikTok banning accounts using [specific tactic]"

- "Instagram shadowbanning [specific hashtags]""

STEP 3: FLAG RISKY PRACTICES

"For each strategy/ad/content:

- Check against current enforcement

- Flag anything that might trigger issues

- Suggest alternatives

RISK FLAG EXAMPLE:

{

risk_level: "medium",

issue: "Text overlay exceeds 20% in image",

```
    platform: "facebook",
    enforcement_severity: "high_this_week",
    recommendation: "Reduce text size or move to bottom 20%",
    alternative_provided: true,
    alternative: [new_image]
  }"
```

STEP 4: UPDATE SAFETY PROTOCOLS

"Feed back into main system:
- Update safety checklists
- Adjust content generation rules
- Flag high-risk tactics for avoidance
- Document for user transparency"

IPE: Intelligence Dispatcher - Complete Detail

yaml

INTELLIGENCE DISPATCHER:

Runs: Continuously, as intelligence is generated

Function: Route relevant intelligence to main AdRoom brain

DISPATCH PROCESS:

STEP 1: FILTER INTELLIGENCE BY RELEVANCE

"For each piece of intelligence:
- Is this relevant to any active strategies?
- Is this relevant to any user industries?
- Is this urgent?
- Is this strategic (long-term)?"

STEP 2: PRIORITIZE DISPATCH

"Priority 1 - URGENT (Dispatch immediately):

- Algorithm shifts affecting active campaigns

- Risk flags for active content

- Major platform outages

- Time-sensitive opportunities (<24h window)

Priority 2 - IMPORTANT (Dispatch within 1 hour):

- New opportunities for user industries

- Medium-term predictions

- Performance pattern changes

Priority 3 - STRATEGIC (Daily digest):

- Long-term trends

- Industry analysis

- Competitive intelligence"

STEP 3: FORMAT FOR MAIN BRAIN

"Package intelligence for easy consumption:

{

dispatch_id: uuid,

timestamp: current_time,

priority: 1,

intelligence_type: "algorithm_shift",

platform: "facebook",

```
    summary: "Facebook increasing video weight by 20%",
    details: {...},
    affected_strategies: [strategy_ids],
    recommended_actions: [
      "Increase video length to 90s+ for all Facebook content",
      "Convert top 3 image posts to video this week",
      "Shift 15% of image budget to video"
    ],
    time_sensitivity: "immediate",
    expires_at: timestamp + 24h
  }"

STEP 4: TRACK DISPATCH RESULTS
  "Monitor:
   - Was intelligence used?
   - What actions were taken?
   - What were the results?

   Feed back to IPE learning systems."
```

IPE: Complete 24-Hour Cycle

yaml

```
IPE 24-HOUR OPERATION CYCLE:

00:00 - 00:15: Platform Monitor (all sources)
00:15 - 00:30: Algorithm Analyzer (process new data)
00:30 - 00:45: Risk Assessor (check guidelines)
00:45 - 01:00: Intelligence Dispatcher (urgent items)
```

01:00 - 01:15: Platform Monitor

01:15 - 01:30: Algorithm Analyzer

01:30 - 01:45: Opportunity Detector (scan for gaps)

01:45 - 02:00: Intelligence Dispatcher

... (continues every hour)

06:00 - 07:00: Trend Predictor (6-hour deep analysis)

12:00 - 13:00: Full platform audit (all systems deep scan)

18:00 - 19:00: Daily summary generation

23:00 - 00:00: Cross-platform pattern analysis

IPE: Integration with Main AdRoom Brain

yaml

MAIN ADROOM BRAIN - RECEIVING IPE INTELLIGENCE:

WHEN new intelligence arrives:

STEP 1: ASSESS RELEVANCE TO EACH USER

"For each active strategy:

- Does this intelligence affect them?

- How urgently?

- What action should I take?"

STEP 2: GENERATE USER-SPECIFIC ACTIONS

"Based on intelligence:

- Create optimization recommendations

- Adjust strategy parameters

- Update content calendar

- Prepare user notifications"

STEP 3: EXECUTE OR NOTIFY

"For Priority 1 intelligence:

- Apply immediate Tier 1-2 optimizations

- Prepare user notification

- Schedule follow-up

For Priority 2-3:

- Add to optimization queue

- Include in next user update"

EXAMPLE: IPE → Main Brain → User

IPE DISPATCHES:

```
{
  priority: 1,
  intelligence: "Facebook algorithm now favoring videos 90s+",
  confidence: 95%,
  recommended_action: "Adjust video lengths"
}
```

MAIN BRAIN PROCESSES:

"Checking all active Facebook strategies...

User 1: Has 3 videos at 60s scheduled this week

→ Adjust to 90s

→ Notify user of change

User 2: Has only image content

→ Generate 2 video variations from images

→ Suggest user review

User 3: Videos already 90s+

→ No action needed

→ Note in performance report"

MAIN BRAIN NOTIFIES USER 1:

"📱 ALGORITHM UPDATE DETECTED

Facebook just increased preference for videos 60-90 seconds.

I've automatically adjusted your 3 scheduled videos from 60s to 90s.

Changes made:

• Monday video: extended to 92s

• Wednesday video: extended to 88s

• Friday video: extended to 95s

This should improve reach by 20-30%.

No action needed - I've handled it.

[1] See the new videos

[2] Revert changes

[3] Learn more about this update"

IPE: Learning and Improvement System

yaml

IPE SELF-IMPROVEMENT:

CONTINUOUS LEARNING:

The IPE AI monitors its own performance:

- Were predictions accurate?

- Were opportunities correctly identified?

- Were risks properly assessed?

- Did recommendations lead to better results?

FEEDBACK LOOP:

Every 24 hours, IPE analyzes:

"Compare yesterday's predictions to actual outcomes:

- Predicted algorithm shift? Did it happen? (accuracy)

- Recommended opportunities? Did users benefit? (value)

- Risk flags? Were they correct? (precision)

Update models based on:

- What I got right → reinforce those patterns

- What I got wrong → adjust detection criteria

- What I missed → add new monitoring sources"

IPE MEMORY DATABASE:

The IPE maintains its own memory:

- Every algorithm change ever detected

- Every prediction made and its outcome

- Every opportunity identified and its success rate

- Every risk flagged and its accuracy

- Platform-specific patterns over time

- Seasonal trends year over year

- Long-term platform evolution

This memory makes the IPE smarter over time,

better at predicting, and more valuable to the main AdRoom brain.

IPE: Complete Intelligence Report Example

yaml

When main AdRoom brain requests current intelligence:

INTELLIGENCE REPORT - [TIMESTAMP]

PLATFORM INTELLIGENCE ENGINE - COMPLETE SNAPSHOT

📱 FACEBOOK

CURRENT PRIORITIES (as of [timestamp]):

Factor	Weight	Trend
Video (60-90s)	9/10	↑↑ (new this week)
Native uploads	8/10	→ (stable)
Comment engagement	8/10	↑ (increasing)
Groups activity	7/10	↑ (slow growth)
Stories	5/10	→ (stable)
Live video	4/10	↓ (declining)
Link posts	3/10	↓↓ (penalized)

DETECTED SHIFTS (Last 24h):

1. VIDEO LENGTH PREFERENCE (Confirmed - 95% confidence)

- Shift from: Any video length
- Shift to: 60-90 seconds optimal
- Evidence: Meta announcement, confirmed by 47 industry sources
- Impact: HIGH - affects all video content
- Action: Adjust all Facebook videos to 60-90s range

2. COMMENT WEIGHT INCREASE (Emerging - 75% confidence)

- Detected: Posts with high comment counts getting 30% more reach

- Evidence: Pattern across 1,200 AdRoom campaigns

- Impact: MEDIUM - affects engagement strategy

- Action: Add comment prompts to all posts

CURRENT TRENDING CONTENT TYPES:

1. Educational videos (60-90s) - +45% reach

2. Behind-the-scenes content - +30% reach

3. User-generated content reposts - +25% reach

4. Product tutorials - +20% reach

OPPORTUNITIES:

- Facebook Groups in [fitness] niche underutilized

- Native video uploads 3x more reach than YouTube links

- Thursday 2pm posting outperforms other times by 35%

RISKS:

- Text overlay limit strictly enforced this week

- Certain finance terms triggering review flags

- Link shortening services being flagged as spam

📸 INSTAGRAM

CURRENT PRIORITIES:

Factor	Weight	Trend
Reels	10/10	→ (still dominant)
Saves	9/10	↑↑ (new priority)
Shares (DMs)	9/10	↑ (increasing)
Original audio	8/10	↑ (new this month)
Carousel	6/10	→ (stable)
Static images	4/10	↓ (declining)

DETECTED SHIFTS:

1. SAVES NOW TOP RANKING SIGNAL (Confirmed - 90% confidence)

- Instagram confirmed "saves" now equal to shares in ranking

- Content that gets saved gets 2x reach

- Action: Create more "save-worthy" content (guides, recipes, tips)

2. ORIGINAL AUDIO BONUS (Confirmed - 100% confidence)

- Reels with original audio getting 40% more reach

- Trending audio still works, but original now better

- Action: Create original audio for key Reels

TRENDING AUDIO (Last 24h):

1. [Audio name] - 2.3M uses

2. [Audio name] - 1.8M uses

3. [Audio name] - 1.2M uses (rising fast)

OPPORTUNITIES:

- Collab posts with complementary brands getting 3x reach

- Quiz stickers in Stories driving 50% more DMs

- 3-part carousel outperforming single images 2:1

RISKS:

- Certain hashtags being shadowbanned (list)

- Reposted content without modification being flagged

- Excessive story posts (15+/day) reducing reach

🎵 TIKTOK

CURRENT PRIORITIES:

Factor	Weight	Trend

Trending audio	9/10	→ (still critical)
Completion rate	9/10	→ (always priority)
New creator boost	8/10	↑↑ (algorithm change)
Duet/Stitch	8/10	↑ (increasing)
Caption keywords	6/10	↑ (new factor)
Post frequency	5/10	→ (stable)

DETECTED SHIFTS:

1. NEW CREATOR BOOST INCREASED (Confirmed - 90% confidence)

  - New accounts getting 50% more initial reach
  - Lasts approximately 30 days
  - Action: Create new accounts for different niches

2. CAPTION KEYWORDS NOW FACTOR (Emerging - 70% confidence)

  - Videos with keyword-rich captions getting 20% more reach
  - TikTok using captions for search ranking
  - Action: Optimize captions with relevant keywords

TRENDING HASHTAGS:

1. *#[hashtag] - 5.4M posts*
2. *#[hashtag] - 3.2M posts*
3. *#[hashtag] - 2.1M posts (rising)*

OPPORTUNITIES:

- Dueting with viral creators in your niche

- Series content (Part 1,2,3) driving repeat views

- Early adoption of new features (testing now)

RISKS:

- Aggressive promotion flagged quickly

- Certain industries (finance, health) under extra scrutiny

- Cross-posting identical content from Instagram penalized

🌍 GLOBAL TRENDS & PREDICTIONS

CROSS-PLATFORM PATTERNS:

- Short-form video dominance continuing

- Social commerce features expanding

- Privacy changes affecting targeting

- AI-generated content increasing

PREDICTIONS (Next 7 days):

- Facebook: 70% chance of video algorithm announcement

- Instagram: 85% chance of Reels update

- TikTok: 60% chance of new ad format launch

PREDICTIONS (Next 30 days):

- Holiday algorithm adjustments starting

- Increased ad costs (seasonal)

- New shopping features rolling out

PREDICTIONS (Next 90 days):

- Major platform shifts toward AI content

- Consolidation of features across Meta platforms

- TikTok expanding e-commerce capabilities

🎯 RECOMMENDED ACTIONS (All AdRoom Strategies)

IMMEDIATE (Next 24h):

✓ Adjust all Facebook videos to 60-90s length

✓ Add "save this" prompts to Instagram content

✓ Update TikTok captions with keywords

✓ Check all ads for text overlay compliance

SHORT-TERM (This week):

✓ Create original audio for key Instagram Reels

✓ Identify 5 Groups per niche for Facebook strategy

✓ Plan Collab posts with complementary brands

✓ Test series content on TikTok

STRATEGIC (This month):

✓ Prepare for holiday algorithm shifts

✓ Build save-worthy content library

✓ Develop cross-platform content strategy

✓ Monitor emerging platforms for early opportunities

IPE: Complete Integration with Main Flow

yaml

Now the full AdRoom system includes:

MAIN ADROOM BRAIN:

- User interaction

- Strategy creation (FREE/PAID)

- Strategy execution

- User communication

- Memory management

PLATFORM INTELLIGENCE ENGINE (IPE):

- 24/7 platform monitoring

- Algorithm detection

- Trend prediction

- Opportunity identification

- Risk assessment

- Intelligence dispatching

Together they create a complete autonomous system:

IPE detects what's happening

IPE analyzes what it means

IPE predicts what will happen next

IPE sends intelligence to Main Brain

Main Brain applies to user strategies

Main Brain notifies and explains to users

Both learn from outcomes