# **The Art of ‘Agentic’ Research**

# **Introduction: A New Research Paradigm**

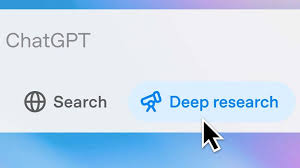
The research landscape has fundamentally transformed. With the emergence of AI "deep research" capabilities from platforms like ChatGPT, Gemini, and Perplexity, professionals now have access to tools that can autonomously browse the web, analyze information, and synthesize findings into comprehensive reports.

However, the true power emerges when these AI tools are paired with the precision of Boolean search. This handout explores how to leverage both approaches in a symbiotic workflow that produces superior research outcomes for marketers, founders, product managers, designers, and strategic consultants.

*"The competitive advantage no longer comes from having access to information, but from asking better questions and building better research workflows."*

## **Part 1: Deep Research Tools - A Comparative Analysis**

### **ChatGPT Deep Research**

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**Core Technology**: OpenAI's o3 model optimized for web browsing and data analysis

**Key Capabilities**:

* Autonomous web browsing across hundreds of sources
* Multi-step research planning and execution
* Reasoning about information to guide further research
* Synthesis into comprehensive reports with citations
* Ability to analyze PDFs, images, and web content

**Strengths**:

* Exceptional reasoning capabilities (based on OpenAI's o1 foundation)
* Strong performance in academic and technical domains (26.6% accuracy on Humanity's Last Exam)
* High-quality citation tracking and reporting
* Well-structured reports with logical organization
* Excels at finding niche, non-intuitive information

**Limitations**:

* Processing time (2-4 minutes per research task)
* Limited to Pro users (with 100 queries per month)
* Occasional hallucinations, though at lower rates than standard models
* Minor formatting issues in reports

**Best For**:

* In-depth technical and academic research
* Competitive landscape analysis
* Product research requiring synthesis across diverse sources
* Finding non-intuitive connections across domains

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### **Google Gemini Deep Research**

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**Core Technology**: Gemini 2.0 Flash Thinking model with direct Google Search integration

**Key Capabilities**:

* Multi-point research planning
* Autonomous searching and browsing
* Reasoning over information gathered iteratively
* Comprehensive report generation
* Audio Overview feature for listening to reports
* Cross-platform integration (desktop, mobile, Google Workspace)

**Strengths**:

* Direct integration with Google's search index
* Strong in factual research with comprehensive search coverage
* Excellent at breaking down complex questions into manageable parts
* Multi-modal capabilities for analyzing images alongside text
* Context management with 1M token context window
* Works across 45+ languages

**Limitations**:

* Sometimes prioritizes mainstream sources over niche content
* Can be more cautious in interpretative analysis than some alternatives
* Occasional formatting inconsistencies in complex reports

**Best For**:

* Multi-faceted research tasks requiring breadth of coverage
* Research involving visual and textual information
* International research across multiple languages
* Product comparisons and market analysis
* Converting research into audio format

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### **Perplexity Deep Research**

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**Core Technology**: Custom large language model with specialized search and reasoning capabilities

**Key Capabilities**:

* Autonomous web research with reasoning
* Export to PDF or Perplexity Page for sharing
* High benchmark performance (21.1% on Humanity's Last Exam)
* Exceptional factual accuracy (93.9% on SimpleQA)
* Fast completion times (averaging under 3 minutes)

**Strengths**:

* Purpose-built for research with specialized search integration
* Excellent citation handling with direct quotes and clear attributions
* Strong in real-time information retrieval and current events
* Fast average completion time (2m59s)
* High-quality report formatting and organization
* Available free for basic usage (with limits)

**Limitations**:

* Less conversational than some alternatives
* Narrower capabilities beyond search and synthesis
* May be less effective for creative, generative research applications

**Best For**:

* Financial market research
* Competitor analysis with clear sourcing
* Current events and rapidly changing topics
* Marketing research requiring clear attribution
* Product research and comparison

## **Part 2: The Boolean-AI Research Symbiosis**

The true power emerges when combining the precision of Boolean search with the synthesis capabilities of AI deep research tools. This creates a four-step workflow that maximizes the strengths of both approaches.

### **The Four-Step Symbiotic Workflow**

#### **1. Use Boolean Search to Find Raw, Diverse, and Edge-Case Materials**

Boolean search provides the precise, diverse, high-quality inputs that AI needs for meaningful insights:

* **Authentic voice**: Raw customer language, unfiltered by marketing or summarization
* **Niche perspectives**: Content from specialized communities with unique expertise
* **Edge cases**: Unusual experiences, contrarian viewpoints, or minority perspectives
* **Recent developments**: Information too new to be incorporated in AI training data
* **Platform-specific content**: Insights from particular communities or demographic groups

**Example Boolean Strings for Business Professionals:**

**For Marketers:**

site:reddit.com OR site:twitter.com

("your brand" OR "your product" OR "your category")

("feels like" OR "reminds me of" OR "makes me think of")

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This search finds authentic emotional associations and metaphors customers use to describe your brand or product category.

**For Product Managers:**

site:reddit.com/r/[relevant subreddit] OR site:[industry forum]

("workaround" OR "hack" OR "figured out how to" OR "solved by")

("[product challenge]" OR "[user need]" OR "[task]")

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This search uncovers how users are solving problems your product doesn't yet address—revealing unmet needs and potential feature opportunities.

**For Founders:**

site:ycombinator.com OR site:producthunt.com OR site:indiehackers.com

("[market segment]" OR "[customer type]" OR "[problem space]")

("underserved" OR "overlooked" OR "no one is" OR "missing")

after:2022-01-01

This search identifies underserved segments or overlooked opportunities in your target market.

**For Designers:**

site:dribbble.com OR site:behance.net OR site:medium.com

("solving" OR "designing for" OR "ux challenge")

("[user need]" OR "[interaction type]" OR "[interface element]")

-job -hiring

after:2023-01-01

This search finds how designers are approaching specific interaction challenges similar to yours.

**For Consultants/Strategists:**

site:hbr.org OR site:mckinsey.com OR site:bcg.com OR site:strategy-business.com

("[industry]" AND "[emerging trend]")

("unexpected" OR "surprising" OR "contrary to" OR "challenging assumption")

filetype:pdf

after:2022-01-01

This search uncovers contrarian or non-obvious perspectives on industry trends from leading strategic thinkers.

#### **2. Feed These Materials to AI Tools for Synthesis and Pattern Recognition**

Once you've collected raw materials through Boolean search, provide them to the appropriate AI deep research tool for analysis:

* **Thematic extraction**: Identifying recurring themes, issues, or considerations
* **Emotional analysis**: Recognizing sentiment patterns, emotional journeys, or unspoken needs
* **Comparative assessment**: Identifying similarities and differences across sources
* **Implicit meaning**: Surfacing unstated assumptions, cultural context, or symbolic significance
* **Framework generation**: Creating organizational structures that make sense of disparate inputs

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#### **3. Use AI Insights to Generate New Boolean Queries**

The insights from AI analysis inform more sophisticated, targeted Boolean searches:

* **Terminology discovery**: Using newly identified terms, phrases, or concepts in subsequent searches
* **Pattern validation**: Creating searches to verify whether patterns identified by AI exist across broader contexts
* **Gap exploration**: Designing queries to investigate potential gaps or opportunities highlighted by AI
* **Contradiction resolution**: Developing searches to clarify tensions or contradictions within AI findings
* **Conceptual expansion**: Building searches that explore adjacent or related concepts identified by AI

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#### **4. Create a Continuous Loop Between Discovery and Synthesis**

This creates a feedback loop where AI helps refine and focus the Boolean search process, making each iteration more precise and insightful.

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## **Part 3: Advanced Prompting for Enhanced Results**

### **Master Prompts for Each Stage of the Boolean-AI Workflow**

#### **1. AI Research Planning Prompt**

When beginning a research project, ask the AI to help structure your approach:

I need to research [topic] for [specific business objective]. Please help me design a comprehensive Boolean-AI research plan that will:

1. Identify key aspects of this topic that require investigation

2. Suggest specific Boolean search strings to collect raw materials on each aspect

3. Outline what kinds of patterns or insights to look for in the collected materials

4. Propose a structure for organizing the final research findings

My target audience is [specific audience], and I particularly need to understand [specific dimension].

#### **2. Boolean Query Generation Prompt**

When you need to create precise Boolean searches for specific research tasks:

I'm researching [specific topic] for [business purpose]. I need to design effective Boolean search strings to find authentic, diverse perspectives.

Please create 5 Boolean search queries that will help me discover:

1. Customer language and emotional reactions related to this topic

2. Unexpected use cases or "hacks" people have developed

3. Underserved segments or unmet needs in this market

4. Competitive differentiators and positioning

5. Emerging trends or shifts in how people think about this topic

For each query, please:

- Include appropriate site: operators to target valuable communities

- Add temporal filters to ensure recency

- Exclude promotional or irrelevant content

- Explain what specific insights this search might reveal

I'm particularly interested in finding [specific type of insight].

#### **3. Thematic Analysis Prompt**

After collecting materials through Boolean search, use this prompt to extract patterns:

I've gathered diverse perspectives on [topic] from [sources] using Boolean search. Help me analyze these raw materials for deeper patterns and insights.

The raw material:

[Paste your Boolean search findings here]

Please analyze this content to:

1. Identify 5-7 recurring themes or patterns present across multiple sources

2. For each theme, extract representative quotes that illustrate it clearly

3. Explain the significance of each theme for [your business context]

4. Note any surprising connections or contradictions between themes

5. Identify any emerging trends or shifts in how these themes appear over time

6. Suggest how these thematic insights might inform our [business objective]

Focus on finding patterns that wouldn't be immediately obvious from a casual reading. Look for underlying needs, unstated assumptions, and implicit connections.

#### **4. Voice of Customer Analysis Prompt**

For marketing and product development research focusing on customer language:

I've gathered authentic customer language about [product/category] from [sources]. Help me analyze these raw expressions to understand deeper patterns in how customers experience and perceive this category.

The raw material:

[Paste your Boolean search findings here]

Please analyze this customer language to:

1. Identify the emotional journey customers describe - what feelings appear at different stages?

2. Extract the specific language and metaphors customers use that reveal how they conceptualize this product/experience

3. Pinpoint the tension points or contradictions in what customers say they want versus their behaviors or other statements

4. Map the unstated expectations that appear to shape satisfaction or disappointment

5. Identify the social or identity aspects of how customers relate to this product/category

6. Note patterns in what customers consistently don't mention that might be significant

Focus particularly on the subtext - what's implied but not directly stated. What deeper human needs or desires might be driving these expressions?

#### **5. Loop Tracking and Progressive Insight Prompt**

To maintain coherence across multiple iterations of the Boolean-AI research cycle:

We've been exploring [topic] through multiple iterations of Boolean search and AI analysis. Let's take stock of what we've learned and plan our next research iteration.

Research journey so far:

- Initial research question: [original question]

- Key findings from first Boolean search: [summary of initial findings]

- Insights from first AI analysis: [key patterns identified]

- Follow-up Boolean searches: [list search strings]

- New discoveries from those searches: [summary]

- Current understanding: [current state of insights]

Based on this journey, please:

1. Identify the most significant insights we've gained so far

2. Note any contradictions or tensions in our findings that need resolution

3. Highlight gaps in our understanding that require further exploration

4. Suggest 2-3 specific directions for our next research iteration

5. Design specific Boolean searches and analysis approaches for each direction

6. Create a framework that integrates what we've learned so far into a cohesive understanding

How should we structure our findings to make them most valuable for [specific business objective]?

## **Part 4: Real-World Applications by Role**

### **For Marketers: Uncovering Brand Perception Patterns**

**Challenge**: Understanding how your brand is perceived relative to competitors beyond standard survey data

**Boolean-AI Approach**:

**Boolean Discovery**:  
  
 (site:reddit.com OR site:twitter.com)

("[Your Brand]" OR "[Competitor A]" OR "[Competitor B]")

("reminds me of" OR "feels like" OR "similar to" OR "different from")

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**AI Pattern Analysis**: Feed these authentic comparative expressions to your preferred AI deep research tool with the prompt:

I've collected authentic customer expressions comparing brands in our category. Please analyze these raw materials to:

1. Map the perceptual territory of each brand - what unique associations or emotions does each evoke?

2. Identify the metaphors or comparisons used for each brand that reveal deeper meanings

3. Extract the implicit criteria customers use to evaluate brands in this category

4. Analyze the emotional valence of different brand associations

5. Identify white space or unoccupied emotional/perceptual territory

Focus particularly on the subtext - what do these comparisons reveal about customer needs, desires, or frustrations that might not be explicitly stated?

**AI-Informed Boolean Follow-up**: Based on the patterns identified, create targeted searches to explore specific dimensions:  
  
 site:reddit.com

("[Your Brand]" OR "[Competitor]")

("[specific association identified]" OR "[metaphor discovered]")

after:2023-01-01

**Synthesis Loop**: Continue this cycle, gradually building a rich map of perceptual territory and emotional associations that reveals positioning opportunities invisible to traditional research.

### **For Product Managers: Identifying Unmet Needs and Feature Opportunities**

**Challenge**: Discovering unmet user needs that aren't being captured through traditional feedback channels

**Boolean-AI Approach**:

**Boolean Discovery**:  
  
 site:reddit.com/r/[relevant subreddit] OR site:[industry forum]

("wish that" OR "if only" OR "why isn't there" OR "frustrated by" OR "can't figure out how to")

("[product category]" OR "[task]" OR "[use case]")

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**AI Pattern Analysis**:  
  
 I've collected expressions of user frustration and unmet needs related to [product category]. Please analyze these raw materials to:

1. Categorize the different types of unmet needs users are expressing

2. Identify patterns in the workarounds or "hacks" users describe

3. Map the emotional impact of these unmet needs on the user experience

4. Extract any implied mental models that shape user expectations

5. Analyze how these needs connect to broader user goals or jobs-to-be-done

6. Prioritize these needs based on frequency, emotional intensity, and strategic fit

Focus on identifying opportunities that our competitors also seem to be missing based on these user expressions.

**AI-Informed Boolean Follow-up**:  
  
 site:reddit.com OR site:stackexchange.com

("[specific need identified]" OR "[workaround mentioned]")

("solved by" OR "found a way to" OR "works for me")

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after:2022-01-01

**Synthesis Loop**: Continue this cycle, developing a comprehensive map of unmet needs, user-generated solutions, and potential feature opportunities.

### **For Founders: Identifying Underserved Market Segments**

**Challenge**: Finding overlooked or underserved segments that represent growth opportunities

**Boolean-AI Approach**:

**Boolean Discovery**:  
  
 site:reddit.com OR site:quora.com

("[product category]" OR "[service type]")

("not designed for" OR "doesn't work for" OR "ignores" OR "overlooks" OR "frustrated as a")

after:2022-01-01

**AI Pattern Analysis**:  
  
 I've collected expressions from potentially underserved segments in [market/category]. Please analyze these materials to:

1. Identify distinct underserved groups or segments emerging from these expressions

2. Extract the specific needs or requirements these segments have that aren't being met

3. Analyze why current market offerings might be failing these segments

4. Evaluate the potential size and value of these overlooked segments

5. Map the competitive landscape regarding these specific segments

6. Suggest potential approaches to better serve these overlooked customers

Focus particularly on identifying actionable opportunities where relatively small changes might deliver significant value to these underserved groups.

**AI-Informed Boolean Follow-up**:  
  
 site:linkedin.com OR site:medium.com

("[identified segment]" AND "[market category]")

("opportunity" OR "underserved" OR "potential" OR "growing")

after:2022-01-01

**Synthesis Loop**: Continue this cycle, developing a comprehensive understanding of underserved segments, their specific needs, and the potential business opportunity they represent.

### **For Designers: Understanding Emotional and Experiential Patterns**

**Challenge**: Going beyond functional requirements to understand the emotional and experiential dimensions of product/service interactions

**Boolean-AI Approach**:

**Boolean Discovery**:  
  
 site:reddit.com OR site:medium.com

("[product category]" OR "[interaction type]" OR "[interface element]")

("feels" OR "experience" OR "emotional" OR "satisfying" OR "frustrating")

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after:2023-01-01

**AI Pattern Analysis**:  
  
 I've collected expressions about the emotional and experiential aspects of [product/interface type]. Please analyze these materials to:

1. Map the emotional journey users describe when interacting with these products

2. Identify key moments that trigger positive or negative emotional responses

3. Extract sensory language that reveals the physical/embodied experience

4. Analyze how aesthetic elements influence emotional perception

5. Identify patterns in how users describe satisfying versus frustrating interactions

6. Suggest design principles that might address the emotional needs expressed

Focus on the relationship between specific design elements and emotional responses. What seem to be the unwritten emotional rules of good design in this context?

**AI-Informed Boolean Follow-up**:  
  
 site:dribbble.com OR site:behance.net

("[specific emotional quality]" OR "[sensory aspect]")

("[product type]" OR "[interface element]")

after:2022-01-01

**Synthesis Loop**: Continue this cycle, building a rich understanding of the emotional design language that could differentiate your product experience.

### **For Consultants/Strategists: Identifying Non-Obvious Opportunities and Threats**

**Challenge**: Discovering emerging industry shifts before they become obvious to competitors

**Boolean-AI Approach**:

**Boolean Discovery**:  
  
 site:linkedin.com/pulse OR site:medium.com OR site:substack.com

("[industry]" OR "[sector]" OR "[market]")

("changing" OR "shift" OR "evolution" OR "emerging" OR "unexpected")

("evidence" OR "signals" OR "indicators" OR "examples")

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after:2023-06-01

**AI Pattern Analysis**:  
  
 I've collected perspectives on emerging shifts in [industry]. Please analyze these materials to:

1. Identify patterns across different signals of change

2. Distinguish between surface-level trends and deeper structural shifts

3. Map potential second-order effects of these emerging changes

4. Analyze which industry assumptions or orthodoxies might be challenged

5. Evaluate potential timeframes for these shifts to materialize

6. Identify strategic implications for different types of industry players

Focus particularly on non-obvious connections and implications. What might industry insiders be overlooking about the significance of these changes?

**AI-Informed Boolean Follow-up**:  
  
 site:hbr.org OR site:mckinsey.com OR site:[industry publication]

("[specific shift identified]" OR "[related concept]")

("implication" OR "strategy" OR "response" OR "advantage")

after:2022-01-01

**Synthesis Loop**: Continue this cycle, developing a comprehensive map of industry shifts, their potential implications, and strategic response options.

## **Part 5: Advanced Integration Techniques**

### **1. Comparative Cross-Platform Analysis**

Different online communities have distinct cultures, perspectives, and communication patterns. By systematically comparing how the same topics are discussed across different platforms, you can reveal deeper insights about diverse audience segments.

**Implementation**:

1. Create identical Boolean searches across different platforms (Reddit, Twitter, LinkedIn, industry forums)
2. Feed the platform-specific results to your AI research tool with this prompt:

I've collected discussions about [topic] from different platforms. Please analyze how this topic is discussed differently across these communities:

Reddit discussions:

[paste Reddit findings]

Twitter discussions:

[paste Twitter findings]

LinkedIn discussions:

[paste LinkedIn findings]

Industry forum discussions:

[paste forum findings]

Please analyze:

1. How the language and terminology differs across platforms

2. What concerns or priorities are emphasized in each community

3. The emotional tone and attitude variations between platforms

4. Which perspectives or stakeholders are represented in each versus missing

5. How formal versus informal communication affects the content

6. What these differences reveal about distinct audience segments and their needs

What strategic implications do these different conversational patterns have for how we should communicate about this topic across different channels?

### **2. Time Pattern Detection**

By systematically examining how discussions evolve over time, you can identify emerging trends, shifting language patterns, and changing priorities before they become obvious.

**Implementation**:

1. Create identical Boolean searches for different time periods
2. Feed the time-specific results to your AI research tool with this prompt:

I've collected discussions about [topic] from different time periods. Please analyze how this conversation has evolved:

2022 (Jan-Jun):

[paste findings]

2022 (Jul-Dec):

[paste findings]

2023 (Jan-Jun):

[paste findings]

2023 (Jul-Dec):

[paste findings]

2024 (Jan-present):

[paste findings]

Please analyze:

1. How the core terminology and language has evolved

2. Shifting priorities or concerns that have emerged or receded

3. Changes in emotional tone or attitude toward the topic

4. New stakeholders or perspectives that have entered the conversation

5. Topics that were previously important but have faded

6. Early signals of future conversational shifts

Based on these patterns, what trajectory does this conversation appear to be on? What might we anticipate as the next evolution in how people discuss this topic?

### **3. Strategic Silence Exploration**

Often what's NOT being said is as important as what is. This approach systematically explores absences, gaps, and silences in online discussions.

**Implementation**:

1. Create Boolean searches for topics you would expect to find but that seem underrepresented
2. Feed these findings (or lack thereof) to your AI research tool with this prompt:

I've been researching [topic] and have noticed some interesting silences or gaps in the conversation. Please help me analyze what might be missing from these discussions:

What appears in the conversation:

[paste what you DID find]

What seems unexpectedly absent:

[describe what you expected but didn't find]

Please analyze:

1. Why certain aspects of this topic might be systematically overlooked or avoided

2. What unstated assumptions might be making certain perspectives invisible

3. Whether cultural, technical, or commercial factors might be suppressing certain conversations

4. If there are taboos or sensitivities that create these conversational gaps

5. Whether these silences represent potential blind spots or opportunities

6. How these absences might shape the overall understanding of this topic

What strategic opportunities might exist in these conversational gaps? What might we learn by specifically addressing what others leave unsaid?

## **Conclusion: Building Your Boolean-AI Research Practice**

The integration of Boolean search with AI deep research tools represents a fundamental evolution in how we conduct research and generate insights. By combining the precision and diversity of Boolean search with the synthesis and pattern recognition capabilities of AI, professionals can discover connections, opportunities, and insights that remain invisible to either approach used in isolation.

To build this capability into your professional practice:

1. **Start with well-crafted Boolean searches** that find diverse, authentic, and edge-case perspectives
2. **Feed these materials to AI deep research tools** for pattern recognition and synthesis
3. **Use the resulting insights to create more targeted Boolean searches**
4. **Continue this cycle**, building increasingly sophisticated understanding with each iteration
5. **Document your process and findings** to create an evolving knowledge base

The organizations that master this Boolean-AI symbiosis will enjoy a significant competitive advantage—the ability to see what others miss, connect what others separate, and understand what others overlook in our increasingly complex information landscape.

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