



2025 HSI Battle of the Brains Case Competition Prompt

Challenge Theme: "AI in Advertising: Innovation with Impact"

Problem: Smarter, Sustainable AI in Digital Advertising

Digital ads are everywhere from banners to social media feeds, but they often miss the mark, wasting ad spend and frustrating users. Additionally, the growing use of AI in digital advertising increases energy consumption, raising environmental concerns. How can businesses deliver more effective, personalized ads while minimizing their environmental footprint?

Your Challenge:

Design a business solution that leverages AI solutions (such as agentic AI, MCP, etc.) for automating ad placement or generative AI for real-time personalized content to enhance targeting, boost engagement, or optimize performance measurement. Your solution must also incorporate a sustainability strategy by designing AI models that use less computational power, optimizing data pipelines to reduce energy waste, or leveraging renewable-powered cloud infrastructure to reduce the environmental impact of AI. Teams should demonstrate both the technical feasibility and business impact of their solution, such as increased revenue, improved customer retention, or enhanced ad efficiency.

Examples of Sponsor Media Networks and Solutions:

- **Capital One:** Capital One Media Network
- **Dell Technologies:** Dell Digital Marketing Hub (Marketing Solution)
- **eBay:** eBay Ads (Retail Media Network)
- **The Home Depot:** Orange Apron Network (Retail Media Network)
- **Thrivent:** Thrivent Financial Outreach Platform (Marketing Platform)

Deliverable Due Dates + Times

- ✓ 10/02 @ 10:00 AM CT - Develop an outline of Proposed Solution
- ✓ 10/02 @ 9:00 PM CT - Deliver a 5-Page Business & Marketing Plan - includes Project Budget
- ✓ 10/03 @ 7:00 AM CT - Create an Executive Summary to summarize your Proposed Solution
- ✓ 10/03 @ 7:00 AM CT - Propose a Technology Solution that assists in solving the issue
- ✓ 10/03 @ 7:00 AM CT - Create a pitch deck/presentation

Furthermore: SUBMISSIONS MADE LATE WILL NOT BE REVIEWED; ONLY THE LATTER OF MULTIPLE SUBMISSION OF THE SAME DOCUMENT WILL BE REVIEWED.

IMPORTANT NOTE I: Naming convention for each deliverable is as follows:

- Submit via <https://hsibattleofthebrains.com/submit/>.
- School Acronym_File Abbreviation_Date.File_Type (Example: SEU_5PBP_100325.pdf).
 - **PS** - Proposed Solution
 - **5PBP** - 5 Page Business Plan
 - **ES** - Executive Summary
 - **PD** - Pitch Deck
 - **Tech** - Tech Solution

IMPORTANT NOTE II: If you have an issue submitting any files, please reach out to us via **Slack** or communications@hsibattleofthebrains.com.

REMINDERS WORTH RESTATING:

- Submissions that do not follow the naming convention will not be accepted.
- All submissions must have a cover page.
- All references must be cited.
- All code and solutions should be original.
- No plagiarism allowed whatsoever [will result in automatic disqualification].
- Late submissions will not be accepted

Tech Submission Instructions

1. **Recommendation:** Host your application using a service like Vercel, Netifly, GitHub Pages, etc., if possible to make things easy for judges.
2. **Tech Submission Format:**
 - Preferred: Submit a link to your **github repository** in a word/pdf. Review the below are some recommendations for cloning and pushing to a repository (tech)
 - It is recommended to use the [GitHub CLI](#) to interact with GitHub
 - Authenticate to Github using the `gh auth login` command
 - At this point, you should be able to follow the regular `git add`, `git commit`, and `git push` workflow
 - Alternative: Package your entire project into a **zip file**. This should include all the necessary files (code, wireframe, etc.), assets, resources, and README.
3. **README File:** Include a **README file** in the repo/zip. Your repository README must be well-documented and organized. This will be the first thing judges see when they visit your repository. At a minimum, you should include:
 - What your application does
 - What tech/frameworks does it use
 - What the judge should do to navigate/interpret your application
 - How to run your application - keep in mind most judges will not want to run your application locally if they don't have to.
 - If you do not host your application it is recommended that you containerize
 - Regardless of the steps needed to build/run your application, it is recommended you script all the build/run steps in a run.sh script in the main folder
 - A way to tell if the app started successfully...

Example:

```
Java
./run.sh
Building Image...
0d2ccda6bc78bf764467f2a9b025c12e221891eba035dc3a61bde7fedf06525b
Started potato-grow:0.0.1...
Waiting for startup
Running an example curl to check app is working
{
  "estimated_yield": 0,
  "growth_stage": "planting",
  "health_status": "healthy"
}
```

3. Naming Conventions:

- Use clear and descriptive names for repo, zip file, and README.
 - SchoolAcronym_TECH_Date.FileType
 - Example: SEU_TECH_10022025.zip
 - Example README: README.md (Updated 10/02 - 2:30p)

4. Submission Deadline:

- The deadline for submissions is October 3rd, 2025 @ 7:00 AM ET. Please make sure to submit your project before this time.

5. Submission Platform:

- Upload your word doc or zip file to the designated submission platform

BUSINESS SOLUTION PRELIMINARY JUDGING RUBRIC

Submission ID	1-2	3-4	5-6	7-8	9-10
Outline	Unsatisfactory: The outline lacks clarity, feasibility, and innovation. It fails to address key problems or issues outlined in the case study adequately. The proposed solution is unclear and lacks practicality.	Below Average: The outline is somewhat clear but lacks innovation and feasibility. It partially addresses key problems or issues in the case study, but the proposed solution may not be fully convincing or practical.	Average: The outline is clear and demonstrates a basic level of feasibility and innovation. It adequately addresses some key problems or issues in the case study but may lack depth or originality.	Above Average: The outline is clear, innovative, and feasible. It effectively addresses key problems or issues in the case study, showcasing a well-thought-out solution. There may be minor areas for improvement.	Excellent: The outline is exceptionally clear, highly innovative, and feasible. It thoroughly addresses key problems or issues in the case study, demonstrating a well-crafted and original solution. There are no significant areas for improvement.
Exec. Summary	Unsatisfactory: The executive summary is extremely brief, lacks comprehensiveness, and fails to provide a clear overview of the proposed business solution. Key points are not effectively highlighted, making it challenging to understand the essence of the submission.	Below Average: The executive summary is limited in comprehensiveness and struggles to provide a clear overview of the proposed business solution. Key points are somewhat highlighted, but the document lacks the necessary depth to set the stage for the rest of the evaluation.	Average: The executive summary is moderately comprehensive, providing a basic overview of the proposed business solution. It somewhat effectively highlights key points but may lack the depth needed to fully set the stage for the rest of the evaluation.	Above Average: The executive summary is comprehensive, offering a clear overview of the proposed business solution. It effectively highlights key points, providing a solid foundation for the rest of the evaluation. There may be minor areas for improvement.	Excellent: The executive summary is exceptionally comprehensive, providing a thorough and clear overview of the proposed business solution. It effectively and succinctly highlights key points, creating a strong foundation for the rest of the evaluation. There are no significant areas for improvement.

5-Page Bus. Plan	Unsatisfactory: The business/marketing plan lacks strategic depth, coherence, and practicality. There is minimal evidence of effective solutions, and the plan does not leverage case data appropriately.	Below Average: The business/marketing plan has limited strategic depth and coherence. Practicality is questionable, and there is room for improvement in leveraging case data to develop effective solutions.	Average: The business/marketing plan demonstrates a basic level of strategic depth and coherence. Practicality is evident, but there may be some gaps. The plan moderately leverages case data to develop effective solutions.	Above Average: The business/marketing plan exhibits good strategic depth, coherence, and practicality. It effectively leverages case data to develop solutions, demonstrating a well-thought-out approach. There may be minor areas for improvement.	Excellent: The business/marketing plan excels in strategic depth, coherence, and practicality. It goes beyond expectations in leveraging case data to develop highly effective solutions. The plan is comprehensive and demonstrates a thorough understanding of the business context.
Pitch Deck	Unsatisfactory: The pitch deck lacks engagement, clarity, and persuasiveness. Slides are disorganized, content is difficult to follow, and the presentation fails to effectively communicate the proposed solution and key elements of the business/marketing plan.	Below Average: The pitch deck has limited engagement, clarity, and persuasiveness. Slides could be better organized, and there are areas where content clarity is lacking. The communication of the proposed solution and key elements needs improvement.	Average: The pitch deck demonstrates a basic level of engagement, clarity, and persuasiveness. Slides are reasonably organized, and the content effectively communicates the proposed solution and key elements of the business / marketing plan. Some enhancements could be made for increased audience interest.	Above Average: The pitch deck exhibits good engagement, clarity, and persuasiveness. Slides are well-organized, and the content effectively communicates the proposed solution and key elements of the business / marketing plan, capturing the audience's attention. There may be minor improvement areas.	Excellent: The pitch deck excels in engagement, clarity, and persuasiveness. Slides are highly organized, visually appealing, and the content effectively communicates the proposed solution and key elements of the business / marketing plan with a high level of impact. The audience is captivated and thoroughly informed.

TECHNICAL SOLUTION PRELIMINARY JUDGING RUBRIC

Category	1-2	3-4	5-6	7-8	9-10
Functionality	Unsatisfactory: The solution lacks basic functionality, with critical features not working as intended or missing altogether. It does not meet the minimum requirements for a functional solution.	Below Average: The solution has limited functionality, with significant issues affecting the core features. Some essential components may not work as expected or are poorly implemented.	Average: The solution demonstrates basic functionality, meeting minimum requirements, but with room for improvement. It covers essential features adequately but may lack sophistication or polish.	Above Average: The solution exhibits good functionality, with most features working well and meeting expectations. It shows a solid understanding of technical requirements, and improvements could enhance its overall performance.	Excellent: The solution excels in functionality, with all features working seamlessly and efficiently. It goes beyond expectations, demonstrating a high level of technical proficiency and innovation in the implementation of features.
Feasibility	Unsatisfactory: The solution lacks practicality, viability, and attainability. It demonstrates a fundamental misunderstanding of the real-world constraints and challenges, making it infeasible for implementation.	Below Average: The solution has limited practicality, viability, and attainability. There are significant issues that would hinder successful implementation, and the solution may not align well with real-world requirements.	Average: The solution demonstrates basic practicality, viability, and attainability. It meets minimum requirements but may have some gaps or uncertainties in terms of real-world applicability.	Above Average: The solution exhibits good practicality, viability, and attainability. It addresses real-world constraints well and shows a solid understanding of the challenges involved. Minor adjustments could further enhance feasibility.	Excellent: The solution excels in practicality, viability, and attainability. It not only meets but exceeds real-world requirements, demonstrating a thorough understanding of potential challenges and providing innovative solutions. The feasibility of implementation is well-considered and robust.

Innovation	<p>Unsatisfactory: The solution lacks any trace of innovation, introducing no novel ideas, methods, or approaches to technology. It does not demonstrate a creative or forward-thinking approach.</p>	<p>Below Average: The solution has limited innovation, with few attempts at introducing novel ideas, methods, or approaches. The approach to technology is conventional and lacks creativity.</p>	<p>Average: The solution demonstrates a basic level of innovation, making some attempts to introduce novel ideas, methods, or approaches to technology. There is an effort to be creative, but it may lack depth or originality.</p>	<p>Above Average: The solution exhibits good innovation, introducing some novel ideas, methods, or approaches to technology. It shows creativity and a forward-thinking mindset, although there may be room for additional groundbreaking elements.</p>	<p>Excellent: The solution excels in innovation, introducing highly novel and creative ideas, methods, or approaches to technology. It goes beyond expectations, showcasing a high level of ingenuity and a pioneering spirit in technological innovation.</p>
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