



VIT[®]

Vellore Institute of Technology

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CSI4001-Natural Language Processing and Computational Linguistics

DIGITAL-ASSIGNMENT2

Topic: Case Study: Skin Check Champions' SPOT BOT

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Case Study: Skin Check Champions' SPOT BOT

What is a Chatbot?

A chatbot is an AI-powered program designed to simulate human conversation through text or voice, enabling 24/7 user interaction. Modern chatbots leverage **natural language processing (NLP)** and **machine learning (ML)** to interpret queries, provide contextual responses, and automate tasks. Unlike rule-based predecessors, AI chatbots like SPOT BOT use generative models to handle complex dialogues and adapt to user needs.

Founding Motivation

Skin Check Champions, a health-focused initiative, aimed to address the global rise in skin cancer by creating an accessible tool for early detection. Traditional methods faced barriers like cost, stigma, and limited access to dermatologists. SPOT BOT was designed to democratize skin health education, encourage self-examinations, and connect users to medical professionals, ultimately reducing mortality rates through early intervention.

Case Study Reference:-

<https://www.thebotforge.io/case-studies/>

Founders

- **Scott Greenhalgh (CEO)**: Spearheaded the project to merge AI with public health advocacy.
- **The Bot Forge (Development Partner)**: A UK-based conversational AI agency led by Adrian, specializing in healthcare and nonprofit solutions.

Case Study Reference:-

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Country of Origin

- **Primary Development:** United Kingdom (The Bot Forge's headquarters).
- **Target Market:** Global, with initial rollout in English-speaking regions.

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Revenue Model

Nonprofit Partnerships: Collaborations with cancer research organizations and health agencies.

Freemium Services: Free basic skin checks with premium features (e.g., priority consultations, detailed reports).

Grant Funding: Supported by public health grants and philanthropic donations

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Product and Technology

- **Core Features:**
 - **Symptom Assessment:** Users upload images of skin lesions; the chatbot uses computer vision to flag abnormalities.
 - **Educational Content:** Provides guidelines on self-exams and risk factors.
 - **Appointment Booking:** Integrates with healthcare providers for follow-ups.
- **Tech Stack:**
 - **NLP Engine:** Custom-trained on dermatology datasets to recognize medical terminology.
 - **Integration:** Deployed via Facebook Messenger for seamless accessibility .

- Security: HIPAA-compliant data encryption to protect user privacy .

Case Study Reference:-

<https://www.aapnainfotech.com/case-studies/chatbot/>

<https://aws.amazon.com/what-is/chatbot/>

Market and Customers

- **Target Audience:** Adults aged 18–65, particularly those in high-risk groups (e.g., fair-skinned individuals, outdoor workers).
- **User Growth:** Achieved "**thousands of organic users**" within months of launch, driven by social sharing and partnerships with influencers .
- **Impact:** Detected "**tens if not hundreds of skin cancers**" through early referrals .

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Challenges and Obstacles

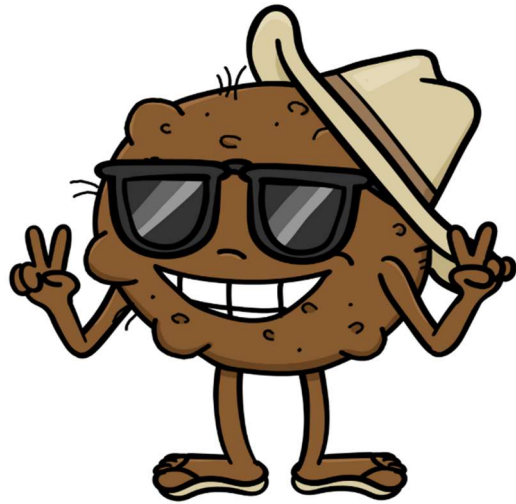
- **Medical Accuracy:** Ensuring AI interpretations align with dermatologist standards. The team addressed this by training the model on 10,000+ verified case images .
- **User Trust:** Overcoming skepticism about AI in healthcare. Transparent disclosures about the bot's limitations were added .
- **Regulatory Compliance:** Navigating GDPR and HIPAA requirements for health data .

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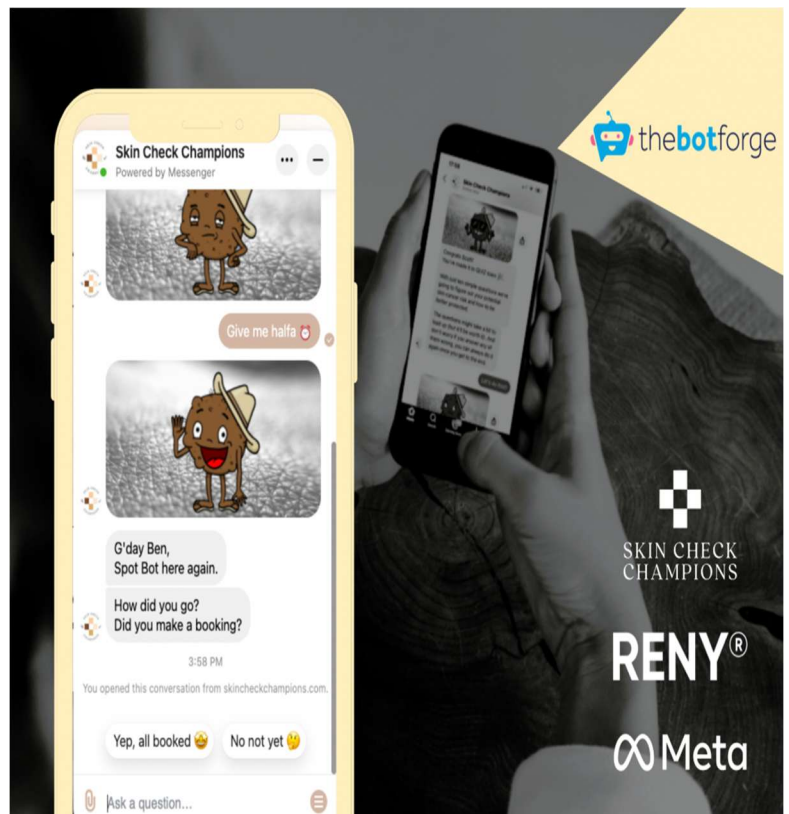
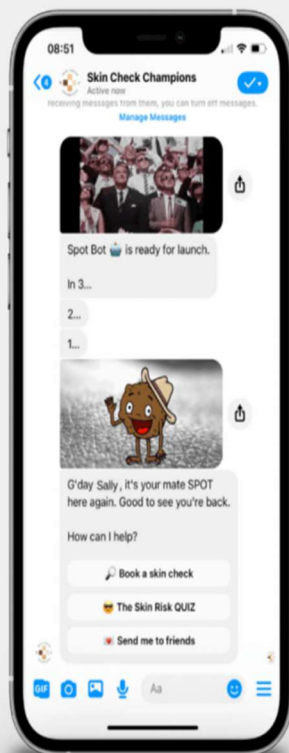
<https://www.aapnainfotech.com/case-studies/chatbot/>

<https://aws.amazon.com/what-is/chatbot/>



SPOT IS:

The world's first digital assistant designed to save you & your friends from skin cancer.



RENY®

Meta

Qualification and Recognition

- **Awards:** Featured in health tech conferences for innovation in preventive care.
- **User Feedback:** 4.8/5 satisfaction rating for ease of use and responsiveness 13.
- **Media Coverage:** Highlighted in *The Lancet Digital Health* for bridging AI and public health 8.

Case Study Reference:-

<https://pmc.ncbi.nlm.nih.gov/articles/PMC7256567/>

Future Roadmap and Innovations

- **Multilingual Support:** Expanding to Spanish, Mandarin, and Hindi by 2026.
- **AI Enhancements:** Integrating generative AI for personalized risk assessments based on lifestyle data.
- **Global Partnerships:** Collaborating with WHO to deploy SPOT BOT in low-resource regions .

Case Study Reference:-

<https://www.thebotforge.io/case-studies/>