

## CocoBot (Caring for Caregivers Online)

**CocoBot is an online platform designed to assist family caregivers of patients with chronic conditions, providing personalized, evidence-based interventions. It integrates with patient health records and uses advanced natural language processing to aid providers in interacting with family caregivers and supporting the caregivers' own wellbeing.**

### What is the Problem?

According to research studies and the CDC, informal or unpaid caregivers are the backbone of long-term care provided in people's homes. In particular, middle-aged and older adults provide a substantial portion of this care in the US.

Chronic conditions like cancer, diabetes, or heart disease are among the leading causes of death and disability in the United States, with the responsibility of managing the condition falling onto the patient or family with occasional visits to a provider. This can lead to caregiver burnout commonly characterized by symptoms of fatigue, stress, and disturbances in sleep.

In our digital age, there's a growing demand for online platforms to bridge the gap between family caregivers and providers. However, current platforms fall short. They often lack integrated patient information, leading to repetitive questions and increased burden on both caregivers and providers. Furthermore, they aren't equipped to handle the emotional toll on caregivers. There is a clear need to redesign the concept of such a platform; instead of focusing only on connecting patients and providers, it should aim to both aid in caregiver self-care and facilitate efficient communication with the provider.

### What is the Solution?

CocoBot is an online platform designed to assist caregivers. This platform is designed to aid with delivering personalized, evidence-based interventions in an engaging format, empowering family caregivers to manage their own well-being while caring for others. The primary function of CocoBot is to enhance the efficiency of human operators in conducting meaningful conversations, while maintaining consistency with expert opinions.

When a caregiver sends a message to a healthcare provider, an AI-driven natural language processing (NLP) pipeline aids the provider in formulating quick and accurate responses. The interface is designed to help providers craft responses that resonate with caregivers, acknowledging their struggles and offering support in sensitive situations.

### What is the Competitive Advantage?

### Technology ID

BDP 8937

### Category

Software/Healthcare IT  
Selection of Available  
Technologies

### Authors

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CocoBot's competitive edge lies in its integration with patient health records through a HIPAA-compliant cloud infrastructure and its use of natural language processing (NLP) that aligns with expert opinions. This integration allows for personalized suggestions for different caregivers, enhancing the value of responses and saving provider time. Furthermore, CocoBot can be utilized by non-experts with minimal training on therapy protocol, enabling them to act as care coaches. This reduces the need for provider time and lowers overall costs.

## References

1. William R. Kearns, Neha Kaura, Myra Divina, Cuong Vo, Dong Si, Teresa Ward, Weichao Yuwen(2020-04-25) , <https://doi.org/10.1145/3334480.3382902>, <https://dl.acm.org/doi/proceedings/10.1145/3334480>, 1–9