



AFFECTIVE COMPUTING IN HEALTHCARE

INTEGRATION



OPTIMIZE

Affective computing stands to speed, cheapen, and improve healthcare



INTEGRATE

Proof of concept integrates affective computing solutions to demonstrate functionality



UNDERSTAND

Produces actionable insights to shine light on the technology and its implementation



ROADMAP

Helps the Company remain competitive in a changing healthcare market

Effecting Change in Affective Computing

The Company is a major US provider of health insurance plans to almost 50 million customers. More than a million healthcare professionals, as well as thousands of hospitals, are part of the Company's global network.

A major initiative in healthcare is the push towards telehealth. Customers demand access to healthcare options and providers without having to travel to an office. Forward-thinking organizations are answering this need with technology-powered solutions that respond to patients' concerns in the comfort of their own homes.

The growing focus on telehealth and the drive toward care empathy initiatives find their conflux in affective computing. This involves analyzing facial expressions, tone of voice, and other non-verbal cues to better understand the patient's physical and mental health. By harvesting this data, enterprises can optimize diagnosis and treatment, helping speed, streamline, and cheapen the care process, thereby improving the quality of care provided.

Helping a Healthcare Giant Explore Cutting-Edge Technology

Prolifics' role in the initiative was to prove out the state of affective computing technology. While the Company had already performed a degree of preliminary research, Prolifics' efforts would help the Company verify its hypotheses and determine whether this emerging technology was mature enough for action.

Prolifics' involvement in the project came through our existing relationship with the Company. Our track record of successful project delivery, as well as our expertise in data science, made Prolifics a clear choice.

Prolifics performed a global search to identify technology providers offering solutions that analyze non-verbal face and voice cues. Our experts created a shortlist of potential providers, and chose the most qualified face and voice cue solution vendors to build a proof of concept.

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About the Company

- ▶ Major US health insurance provider
 - ▶ Covers almost 50 million customers
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Business Challenges

- ▶ To keep pace with competitors, the Company sought to explore the potential benefits of affective computing technology
 - ▶ The Company needed a partner with data science expertise to prove out the state of affective computing and verify the Company's hypotheses on technology maturity
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Solution

- ▶ Prolifics identified the best-qualified affective computing solution vendors
 - ▶ Designed and implemented middleware to connect patient interaction with vendor solutions, producing emotional scores that could then be analyzed to enhance interactions
 - ▶ Produced actionable insights into the effectiveness of affective computing, giving the Company's stakeholders a clear picture of the state of the technology and how it might be implemented
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Harvesting Emotional Insight

Prolifics implemented the integration middleware necessary to connect raw affective data with the facial and verbal cue solutions. These technologies analyze affective data to produce emotional scores.

Using this integration middleware, Prolifics then introduced a pre-recorded video of a scripted interaction between a patient and a healthcare provider. The affective data solutions analyzed the video and produced emotional scores based on the patient's responses.

This proof of concept produced actionable insights into the effectiveness of affective computing, giving the Company's stakeholders a clear picture of the state of the technology and how it might be implemented. The results help the Company understand if affective computing can increase productivity, foster greater communication between patients and providers, and better inform healthcare professionals' diagnosis and treatment.

Charting the Future of Care

Research shows that the more empathetic the patient care process, the better quality the patient outcome. Enterprises are focused on adding value to their care journeys to sway and retain customers.

The Company stands to gain from a number of affective computing use cases. Patients can contact care providers over the phone or via digital engagement, reducing the time and expenses that both providers and patients incur with visits to physical care locations. Affective computing enables care providers to gain a more complete picture of a patient's health—something that would not previously have been possible without seeing the patient in person. This particularly strengthens care providers' ability to deliver the right mental health services, as well as help manage chronic diseases.

With a better understanding of affective computing courtesy of Prolifics, the Company is better prepared to chart a course toward a future that embraces the latest in diagnosis and treatment technology.

By harvesting data on non-verbal cues, enterprises can optimize diagnosis and treatment, helping speed, streamline, and cheapen the care process, creating a substantial competitive advantage in the industry.

ABOUT PROLIFICS

Prolifics creates a competitive advantage for organizations around the world by implementing customized, end-to-end IT solutions that achieve business success, leveraging leading technologies in a global delivery model. For more than 40 years, the company's technology expertise, industry-specific insights and certified technology accelerators have transformed organizations around the world by solving complex IT challenges. For more information, visit www.prolifics.com.