



# Technologies to Expand Emotional Connections

Empathy—the ability to imagine oneself in another’s shoes and understand another’s feelings—is increasingly being recognized as key to health and well-being. Over the last decade, though, studies have shown a decline in empathy among young people, and many assume that technological advances necessarily erode it. But that does not have to be the case. Over the next decade, technology will play an important role in building capacities for empathy and facilitating empathetic exchanges to create health and well-being. As inference and emotion-tracking technologies become more advanced and commonplace, they’ll reveal where and how empathy can make a difference in health and well-being, both inside and outside the clinic. These technologies, along with advances in telepresence and media tools, will create new ways for people to engage emotionally with others—both face-to-face and remotely.

## Monitoring emotion to foster empathetic exchanges

In the next decade, emotion- and attention-tracking technologies will be embedded in many consumer electronics devices, creating accessible tools for teaching and monitoring empathy. This ability will reveal which social and environmental conditions are conducive to empathy, by quantifying where and when people feel safe and open to connecting with others, even if they don’t notice it consciously. It will also reveal which interactions benefit most from empathy. These technologies will be used to train medical providers to connect emotionally and to monitor patient interactions to ensure that providers sense patients’ emotional needs in specific encounters and over time.

## Employing storytelling technologies to elicit empathy

In a decade, individuals and populations will have access to powerful tools—based on advances in our understanding of the mechanics of narrative—that will help them craft multimedia stories to elicit empathy. Patients will use these tools to explain their health goals and concerns in a succinct and persuasive manner. And populations will use them to make their experiences, and corresponding health and well-being needs, more visible. While many of these will resemble contemporary documentaries and art projects, more lightweight forms, such as patient-created multimedia enhancements to traditional health records, and much more sophisticated media, such as virtual reality experiences that let people slip into another’s skin, will also emerge.

## Routing needs to matching resources

As we begin to understand more precisely where empathy can make a difference in health and well-being, technologies will uncover needs for empathy and match them with resources. For instance, such technologies could identify that someone’s feelings of isolation are negatively impacting that person’s well-being and then route the person to a formal resource, such as a doctor or health coach, or an informal resource, perhaps a family member or a local business, to meet that need. We’ll also see the emergence of new copresence platforms that route people in need of emotional support, in both emergency and less critical situations, to remote volunteers who can provide it.

These **artifacts from the future** are examples of products, services, and experiences that may play out in the future based on this forecast.

## “DAY MAKER” MOBILE APP



**Settings**

- I'm feeling helpful
- I want help from others
- Enable email text analysis
- Enable in-call voice analysis
- Connect to heart monitor
- Connect to neuro monitor

**Thank you.**  
Your mental health support has added **2.4 YEARS** to people's lives in your community. Keep being a day maker!

**We found a match!**  
Maria needs someone to talk to. She's overwhelmed at work. Accept this task to reduce her stress levels now!

expand your task zone

Join the world's largest network of mental health microworkers.  
*The day you make could save a life!*

**DAY MAKER**

Available on the  

visit <http://daymaker.ai>

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### WHAT:

You were just about to check your email when “Day Maker” sends you an alert. A woman named Maria is just down the platform and she needs someone to talk to. “Day Maker” has analyzed her and your biometric data and mobile activity and identified that she’s feeling stressed—and that you’re the right person to help her. Others have done the same for you, and daymaker has calculated that their help has added 2 years to your life. Now it’s time to jump into action and pay it forward.

### SO WHAT:

As we begin to better understand the downstream consequences of different emotional states and experiences they will create new imperatives to take preventative action. This will coincide with the rise in inference technologies—which can use everything from web-browsing habits to blood pressure to infer people’s emotional needs and preferred communication styles at any given moment, creating a way to know when and where to intervene upstream. “Day Maker” is a view into a world where real-time emotional data is commonly used for preventative interventions.

# HEALTHY BLOCK PROJECT



## WHAT:

It had been there so long that it's hard for you to imagine anything other than a vacant lot on the corner of Walnut and 7th Street. But now, using the Healthy Block Project app, you can literally see it. The project started when some high school kids superimposed an augmented reality recorded video of a park in a neighboring city onto the vacant lot. The local non-profit insurance provider CareNogero jumped on board, creating the app and encouraging more people to tell stories about their visions for the vacant lot. A new park was the clear winner. Your community coalition then raised funds, materials, and labor to construct the park, breaking it down to micro-contributions with the app. Now, as you walk over, shovel in hand, making your shared vision a reality feels within your grasp.

## SO WHAT:

While the social and environmental determinants of health are becoming targets of upstream investment, focusing vision and resources is still challenging. Stories—particularly those people co-create—have always been a way to inspire people to take action. Like today, people will use digital media to help others understand their challenges and aspirations and to request resources from the crowd. More immersive forms of media present an unprecedented opportunity to help people visualize healthy futures that are radically outside their previous experiences, inspiring new kinds of community health initiatives.

While we've traditionally thought of technologies as creating emotional distance, the next decade of technological innovation will usher in a wave of tools to connect people emotionally in ways that matter to health. Learning to harness these tools and strategically deploy them in instances where emotional connection matters will drive new kinds of empathy-based health strategies.



### CREATE CONTINUOUS CHRONIC CARE: Developing and routing empathetic providers

Dr. Rushika Fernandopulle's Special Care Center in New Jersey improved the health of people battling multiple chronic conditions, partly by hiring health coaches who empathized with these patients. Technologies to quantify empathy can help reveal the mechanisms at work and provide another way to screen and train applicants for health coaching jobs and route them to the appropriate patients.



### ENHANCE EARLY CHILDHOOD HEALTH: Upstream emotional intervention

As we begin to make links between the emotional experiences of children and their later health outcomes, what was once looked at mostly as a family issue will increasingly become important to the medical system. Technologies for monitoring emotion provide a way for providers to incorporate emotional metrics into their assessments of a child's healthy development.



### SUPPORT END-OF-LIFE CARE: Storytelling for empowered last years

As the focus of end-of-life care shifts from prolonging life to making people happy and comfortable, technologies for empathy will help with understanding and enhancing the experiences of comatose or dementia patients. Emotion monitoring will bolster efforts such as narrative gerontology programs that aim to empower people to create stories to share their subjective experiences.



### OPTIMIZE WORKPLACE WELLNESS: Routing empathy in the workplace

Recent research from the University of Michigan indicates that workers who have more empathetic bosses are sick less often, and points to the health benefits of empathy in the workplace. As we begin to understand where empathy can make the most difference at work, technologies can be used to strategically place empathetic people in positions and situations that will have optimal impact on workplace wellness.



### BUILD COMMUNITY HEALTH CAPACITIES: Creating community narratives

New storytelling tools will be an important resource for creating community health in the next decade. The ability to easily create multimedia personal narratives and embed them in a physical location will give people new opportunities to tell stories of place, leading to greater empathy and stronger community bonds. These same technologies will allow communities to broadcast their narratives to entities that impact their health, such as public health organizations, law enforcement, and other communities.

#### KEY RESOURCES

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