

MITRE's Latest Serious Game Works to Level Up Personal Relationship @

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Research & Prototyping

With "Now We're Talking," MITRE researchers built an innovative serious game, to promote positive personal communications that could save relationships, and maybe lives, among people in highstress jobs, such as veterans, the military, and police.

My partner tripping in front of a crowd was funny but calling her a klutz lost me points... literally.

An insensitive moment from a sitcom? Actually, this "walk in the park" was part of "Now We're Talking," a MITRE virtual game focused on creating positive communications in relationships.

Romantic and other interpersonal relationships are an atypical research topic for MITRE. Yet, from a systemic perspective, few areas have as powerful an effect on a person's whole life as the connection with a long-term partner or spouse.

While healthy relationships can be stabilizing, broken relationships are significant drivers behind veteran suicide. One study found that family breakdown accounted for 11% of the paths taken to adult homelessness. This means helping families learn to communicate can help our nation's troops, our communities, and MITRE's government sponsors, including the Department of Veterans Affairs and the Department of Defense.

Sara Beth Elson, a doctor of social psychology, led game development within MITRE's independent research program. She explains, "These relationships affect how well people function at work, how well they interact with their kids. They affect decision-making in just about every aspect of life."

"Yet even in the best, happiest, highest-functioning relationships," Elson says, "conflict is inevitable."

Relationship conflicts are also expensive, costing billions of dollars a year in decreased productivity, with billions more spent on counseling, therapy, and divorce proceedings.

There were 746,971 divorces in America in 2019, with military families more likely to split up than most. "There's a certain way of interacting and communicating in the military that doesn't always translate well to family life," Elson says.

A Serious Game to Support Emotional Growth

While there is no one answer to solve the problem of divorce and homelessness, communications training can help.

With initial funding from MITRE's <u>independent research program</u>, the team proceeded to create, plan, and design a serious game for use on a desktop browser. Unlike the latest offering for Switch or Xbox, these types of games are developed primarily for educational or training purposes. They're gaining widespread use as teaching and simulation tools.

Peter Leveille is the capabilities lead for serious games at MITRE and worked on "Now We're Talking."

"We've learned through games for a long time," he says. "At some point, society decided kids learned through games, but adults didn't. And that's just not true. Everyone learns through games."

MITRE's Olivia Boyce, an Army veteran who play-tested the game, agreed. "Your typical soldier is an 18 to 24-year-old male," she says. "I'm sure they would prefer this approach compared to classroom lectures about emotional intelligence."

"Now We're Talking" is a storytelling pathway game. Each episode is a conversation where you choose dialogue options with a virtual partner.

"The experience is much more hands-on than a book or class," explains Aidan Buffum, a software engineer on the project. "When you say something, you're seeing a character speak back to you."

"The user is immersed in what's going on, so there's a better opportunity for them to place themselves in the situation and contextualize it."

"Research with serious games shows that it's not reaching the goal that makes people happy, it's making progress towards the goal."

-Peter Leveille, capability lead for serious games, MITRE

Users can track scores, like relationship trust level or partner's emotional stamina. One of the main features is a virtual therapist—a section of the screen dedicated to providing feedback on the impact and consequences of player's choices. To ensure quality, each story is reviewed by expert clinicians to ensure it builds on and represents real scientific findings.

Players are encouraged to perfect their score by replaying episodes. "You learn a lot more from making mistakes than from not making mistakes," Leveille explains.

"Replaying episodes allows players to learn by applying the lessons they have learned. Research with serious games shows that it's not reaching the goal that makes people happy. it's making progress towards the goal.

"If you can give them something to strive for, that's going to keep them happy and keep their minds engaged so they can learn better."

For Veterans and Others, a Way to Bolster Relationships

While the format can be adapted to a variety of users, veterans were the primary target. The research team hopes providing a low-stress way to practice interactions can facilitate better emotional intelligence and responses.

"Being able to name emotions, let alone express them, is a challenge for people in the military, as well as many of us outside it," explains Elson. "This app is a place where people can practice these

extremely difficult behaviors on their own. Then, when those conflicts or tensions arise, the user will have practiced handling similar circumstances."

For Army veteran Boyce, the privacy was a selling point: "It has the potential to support existing family resources in a more approachable way, because you can play it privately, in off-time, rather than a class after work. It's a huge asset that I think people would like more than what exists today."

MITRE's goal is to find partners who will work with us to further develop the game, customize it as necessary, and deploy it. Since MITRE doesn't "sell" products, we look for the best ways to transition our technology to government or industry so that they can make something like this game available to many users.

Today, the virtual-novel format is being adapted for projects with the Dev Ops Coder Academy, internal MITRE training, and <u>MITRE Engenuity</u>.

Game on.