

"Video games, social interactions, and mental health: benefits and problems"

Dr. Michelle Colder Carras

Mental Health Symposium 2019

April 26

[2019/04/26 12:57] Carolyn Carillon: Hello everyone.

Today's presentation is being transcribed so those without audio or who require text only can participate in real time.

A little explanation about this service.

Voice-to-text transcriptionists provide a translation of the key ideas discussed, NOT a word for word transcription.

Voice-to-text services provide an in-the-moment snapshot of ideas and concepts, so that those who are unable to hear or to understand the audio program are able to participate in real-time.

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MCC: DrMCSquared / Michelle Colder Carras

[2019/04/26 13:01] Carolyn Carillon: <<transcription starts>>

[2019/04/26 13:01] lez (lesbo Charisma): Dr., thank you for being here

Hi! Welcome to Virtual Ability's 2019 Mental Health Symposium.

Thank you all for coming.

I'm Lez from New Mexico, USA. I've been in Second Life since some time in mid 2008. I've been fortunate enough to make many great friends and consider myself blessed because of it.

I find SL to be very therapeutic and it is the main social interaction that I have in any life. Thank you, Linden Lab.

I have been living with a disability for 20 years but that's fine. I was able to have two great careers before I eventually became unable to work. Since then, one of the things I cherish about Second Life is that it has made me feel productive again.

Feeling productive is great for the health of anyone, disabled or not, so I thank you, Linden Lab, for this great forum.

I am retired/disabled from the medical field and most of my time is spent taking care of my Mother. She was diagnosed 3 years ago with liver disease. So, we both sort of take care of each other.

Here in SL I enjoy sailing and flying. I am also a very proud member of the Second Life Coast Guard. We've been around since 2005 which is quite a feat in itself.

Today, I'd like to introduce our next speaker, Dr. Michelle Colder Carras. Dr. Carras is a mental health researcher who is interested in video games and how they can promote mental health and even help prevent suicide. Dr. Carras is a gamer herself. Today Dr. Carras will talk with us about how the games we participate in improve or hinder our wellbeing. She will tell us about problematic gaming, privacy issues, and how gaming disorders overlap with other problematic behaviors. Since Dr. Carras is new to Second Life, I'd like to request that our audience hold their comments and questions until she is done speaking. There will be time for Q&A at the end of her session. Thank you. Now, please welcome Dr Michelle Carras.

[2019/04/26 13:05] DrMCSquared Resident: 1. Good morning. I'm Michelle Colder Carras, and I'm a public health researcher who specializes in video games and mental health.

I'm really excited to be talking to you all today and I look forward to your questions, but I'll ask you to bear with me until the end to answer them.

2.

Aside from the standard disclaimer that the various organizations I've worked with prefer, I believe in talking about my intellectual conflict of interest- although I haven't had any financial relationships with the video game industry, I do consider myself a gamer (although not lately).

I also have a disability, bipolar disorder, which I've lived with for about 35 years.

My research is driven by my first-hand experience and my experience as a family member-

I have a deep personal connection with games and virtual worlds and how they can both help and hinder mental health.

3.

When people talk about games, there is often a lot of disagreement or confusion. In this presentation I'll cast a really wide net and use the term video game to define lots of types of Interactive digital entertainment.

So, [that will] not just be what we normally think of as video games but also exercise games, digital board games, virtual worlds, gambling-type games.

This is not strictly correct, as games are usually defined by having rules, a goal, etc. Instead of that, just think of it as a form of interactive digital entertainment that has playful elements.

My background is in the biomedical sciences, particularly public health.

Unfortunately, from a public health perspective video games are often thought of as a negative exposure that leads to health problems.

This doesn't take into account that people play for various reasons/motivations, and that interacting with games leads to emergent properties.

That makes it impossible to investigate what we always want to investigate in science- X causes Y.

While this is a common problem in public health, it's even harder in games because their very nature means they change as they're played by the way people make choices.

So thinking of them as an exposure like measles doesn't make sense.

Our understanding of the effects of games is also limited by the fact that people play games within a context- what they have access to, who they play with, what activities they may be giving up & the impact of that game's context. And the changing pace of technology also makes it hard to keep up. In a little over 40 years we've gone from black and white, TV-based Pong to taking the game out into the world like Pokemon GO or becoming a member of an online, global community, whether in a game or a sim.

4.

Video games are wildly popular as entertainment. To compare, last years' Eagles Patriots Superbowl had 103.4 million viewers.

The 2018 League of Legends World Championship, which was livestreamed on Twitch.tv, had 99 million viewers.

Fortnite – 125 million players

PUBG (PlayerUnknown's Battlegrounds) – 400 million players

Almost half of the US plays regularly. Younger people play more than older ones, (72% vs. 49%)

90% of teens play regularly.

About a third of men identify as gamers and 9% of women.

People play because games are fun and exciting. They keep playing because they're engaged.

5.

In public health, we talk about the importance of meeting them where they're at: if we want to improve the health of a population by giving them some kind of intervention, we can't expect them to come to us necessarily; we have to go out into the community.

For kids in the old days, that might have meant on the playground like these kids playing Capture the Flag.

Social interactions at that time were mostly face to face.

This meant that people had to navigate a lot of difficult situations that favor those with good social skills or conform to social norms.

6.

This is what Capture the Flag is today....

Today, people spend hours a day online or say they're always connected.

Multitasking is the norm.

This applies to people all over the globe, not just those countries where most people have high-speed broadband internet.

Young kids now are the first generation who will grow up with the norm of being constantly connected through online communication.

A recent survey by the Pew Internet Research in the US found that 45% of teens said they were "constantly connected".

For all of us, connection, combined with a blending of online spaces, entertainment and marketing means that

many people get their information through online media, and we've learned how easily this information and popular opinion can be manipulated.

Multitasking has become the norm, which has led to concern about how our attention is being divided.

The good news is that these vast changes have leveled the playing field in many respects.

These online spaces make it possible for people to participate in society and meet like-minded others when doing so in real life can be challenging.

So if we want to change the health of populations, we need to meet them where they're at, which is online.

7.

Now social interactions are not my area of expertise, except in how they compare to the requirements and traditions of social interactions in public health programs.

Some aspects are the same, but many aspects are different.

For example, there are many more ways to have synchronous interactions-communicating at the same time, rather than, say, writing a letter.

Now we can have private or open conversations in different online settings, have video conferences with multiple forms of media at the same time, and communicate with thousands of people at the same time.

We can still have asynchronous online communication through emails, comments and discussion,

but the speed with which information, ideas, opinions, and support can flow is ridiculously different.

We also have anonymity and choice.

In the real world, there aren't a lot of opportunities to express different embodiments of yourself.

Here we have a bunch of video game fans dressed in cosplay costumes.

These folks have come to a gaming con called Magfest to meet with other fans and enjoy the chance to step outside of their usual personas for a few days.

In online worlds, we have a lot more choice.

In talking about health interventions and programs, we talk about scale and direction.

How many people can we reach?

If we intervene, is it best to do it one on one, or should we have some kind of program where we do one-to-many, like an emergency alert system?

Do we need feedback or reporting from many people to one person or group?

Or is it best to have many people talking to many people, like a support group?

All of these modes are a lot easier to implement in online settings.

Anonymity may be everyone's biggest concern.

The anonymity provided by computer-based communications is one of the biggest potential benefits.

It can allow people to feel more free to express themselves, to confide.

This can allow people to form close relationships and receive real support, and it leads to different types of communities and unique cultures.

But that has its downside – how anonymous are we, really?

There's no easy answer.

8.

One of the main things I'm hoping you'll take away from this is that commercial games are so engaging that

they can possibly improve retention in therapy if used as interventions.

Here's the way I look at it:

We have the individual existing in their social context, with their life experiences and health states and behaviors.

They choose games purposefully and enjoy an immersive experience that involves different types of social interactions.

Interacting with games provides data, which can be mined.

Through machine learning research we could learn to use these data to identify health conditions and needs,

and then provide health services and interventions in the online settings where people are already spending their time.

9.

Mini-review of existing interventions:

Researchers in North Carolina randomized people with clinical depression into groups,

then asked one group to play Bejeweled 3 times a week for a month and the other group to surf a website about depression.

The group that played video games had significant reduction in their depression compared to the group that just learned about depression from a website.

A group of researchers in Sweden are investigating how to use Tetris as a cognitive vaccine to prevent PTSD.

So far they have found that it reduces intrusive thoughts

when given to people who have just had a motor vehicle crash or an emergency caesarean section.

[2019/04/26 13:21] Carolyn Carillon: MCC: I'm thinking of giving Tetris to someone as a therapy

If you give people Tetris, maybe they'll have a frustrating experience

But maybe that doesn't matter

We don't know that

[2019/04/26 13:21] DrMCsquared Resident: When given to children who are put in anxiety-provoking situations like surgery or chemotherapy, games have been shown to be very effective at reducing anxiety.

Games can also be used in psychotherapy to develop rapport with patients or to learn more about their perspectives or ways of dealing with things.

The simple game of solitaire can be used to monitor the cognitive impairment of people with dementia or other cognitive decline

by mapping errors in moves in the game to specific cognitive skills.

However, so far most of these clinical trials are very small- no population-scale interventions have been tested yet.

10.

My personal experience with online gaming and specifically with belonging to a guild made me interested in how guilds and other online communities could be useful for veterans. [Story about Dugri].

[2019/04/26 13:23] Carolyn Carillon: MCC: I was in a guild that was run by a veteran

He liked to reproduce the militaristic setting he was used to

But that means certain people will be drawn to them

He didn't restrict the guild to veterans

People didn't conform to the rules he'd set for the group

We had a young teen who was just being obnoxious
That got the veteran leader really upset
The fact that he was drawn to the guild
I thought about how beneficial that [guilds] could be as a space for vets who were returning

[2019/04/26 13:24] DrMCsquared Resident: A couple of years ago I worked with a psychologist at a Veterans Affairs Medical Center on a qualitative study. We recruited vets who were treated for mental health problems or addiction and who played video games for 7+ hrs/week.

The average age of our gamers was about 40.

We asked them questions about their Video Game Play Habits, User Experience in games, the Social Dimensions of their gaming, their military experience, and their mental health, like:

- What draws you to video games?
- When you're playing, what makes you decide to stop?
- Have you ever been a member of a guild or clan? What was that like?
- How, if at all, do you feel your diagnosis is related to video gaming – either in a positive or a negative way?
- Has gaming helped you cope with your diagnosis or manage your symptoms?

How?

- Has gaming caused you any problems related to your diagnosis? How?

[2019/04/26 13:26] Carolyn Carillon: MCC: It's interesting as a researcher that the first speaker [...]

We ended up taking a similar approach

We wanted to know how games could be useful for conditions

It's heartening that we're both coming from the same perspective

One more important point

I had many collaborators

Nick's partner, Jamie, is an important part of this

She came up with the questions and did the qualitative analysis

[2019/04/26 13:26] DrMCsquared Resident: We found that some people indeed used games to escape or provide relief from disturbing or uncontrollable negative thoughts or feelings.

Others used games to develop meaning in their lives, through opportunities for leadership or employment,

or even through reframing the difficult choices they had to make in the line of fire.

Many found games really important for connecting.

[2019/04/26 13:27] Carolyn Carillon: MCC: I feel like I don't have to tell you guys this
People who don't understand virtual worlds find this amazing

[2019/04/26 13:27] DrMCsquared Resident: 11.

For one young man with severe PTSD, connecting with his Twitch followers was the only way he felt comfortable in social settings.

Another vet had some difficult decisions to make in the line of duty.

To him, the game Life is Strange resonated strongly, with its compelling narrative and the ability to control time.

But the thing that was most striking to me is how people talked about the power of games to get them through the hardest points in their lives. Gamers were using them as tools to refocus or cope when nothing else is available. They kept the mind busy – I was so excited because in qualitative research, metaphors can be really important, and I heard two different people talk about idle hands being the devil's workshop. We even found that for some vets, it was an effective way to avoid substance use relapse.

One woman wanted to structure it into her day.

[2019/04/26 13:28] Carolyn Carillon: MCC: It occurs to me that it would be useful to read the slide text

I'm going to try to rotate my view

So the vet with PTSD, that's the first quote on the slide

For the gentleman who liked Life is Strange, that's the second quote

I was so excited because metaphors can be important in qualitative research

I heard two people talking about how games are tools for refocusing

(reads quotes on slides)

[2019/04/26 13:30] DrMCSquared Resident: 13.

Now I'm really excited to tell you what some programs communities just like yours are doing to use video games for mental health and suicide prevention.

Stack Up is a nonprofit organization that serves 10,000 veterans nationwide each year through its Discord server.

(Discord is a chat program that was originally designed for online gamers).

They saw a need for mental health support for their members, so they developed the Stack Up Overwatch Program, or StOP.

StOP provides free, anonymous private chat with volunteers who are trained in crisis intervention.

They connect with those in need to assess suicide risk, discuss problems, brainstorm solutions, and share resources.

StOP served 60 people in 2018, and is on target to serve 90 in 2019.

I'm proud to say that I'm currently collaborating with them on a grant with the Centers for Disease Control to develop methods for evaluating all of their programs.

Operation HEAL was an online educational conference held last year for the Veterans Affairs community.

We had many researchers, clinicians, veterans, and suicide prevention specialists sharing stories

of what worked for them, where the research was, and what was still needed.

We had clinicians talking about how they used gaming in clinical practice, how

video games were useful in mental health recovery,

first person accounts of gaming saving lives, various perspectives on social media and suicide prevention,

and grassroots efforts in the online gaming community.

The online setting proved to be a great way for clinicians and veterans to share knowledge and learn from each other-

it leveled the playing field like we talked about earlier.

Tomorrow is another presentation I'm really excited about:

American Association of Suicidology panel tomorrow (4/27) in Denver:

Suicide prevention in Video Gaming Communities.

We'll have representatives from organizations that promote mental health in gaming and gamers, including Stack Up, talking about how their organizations use or promote games for mental health and crisis intervention.

Please consider tuning in!

The panel will be live streamed on Twitch.tv at <https://twitch.tv/stackupdotorg/profile>.

[2019/04/26 13:33] Carolyn Carillon: MCC: I helped organize this panel

[2019/04/26 13:33] DrMCsquared Resident: 14.

All of this good stuff I'm telling you about video games is not the whole story. We currently have two proposed disorders related to excessive use of video games. When I started researching this, I was convinced that the benefits of games outweighed the problems.

I've since learned that a lot of the research on disordered or problematic gaming is not great, but I've also learned that all over the world, a small percentage of people who game or use social media have true problems related to not being able to control their use.

The origins of gaming disorder is in boot camps in China.

[2019/04/26 13:34] Carolyn Carillon: MCC: As Tony mentioned earlier in his presentation

[2019/04/26 13:34] DrMCsquared Resident: Parents saw their children neglecting responsibilities and school in favor of online games, so some enterprising individuals capitalized on that by coming up with unique but untested treatments.

Well-meaning psychiatrists saw this and said that we needed to define a disorder so that only the most severe clinical cases would be seen as needing treatment, and they would get actual medical care.

The problem is that a lot of the concern about excessive playing gets labeled with terms like dopamine hijacking-

games are so inherently pleasurable that everything else becomes meaningless.

This has been tested again and again in studies of brain imaging.

But again, there's one small problem--many activities are inherently rewarding, but I have never seen a study where other pleasurable activities are compared to video gaming.

So who knows how the brain of someone on games compares to that of someone who is listening to music that they love?

Some of the problem is measurement.

All of these online spaces and activities are blending together.

There's also the problem of researchers, many of whom aren't really that familiar with the activities they study.

A lot of the evidence about what is called gaming disorder is actually from studies that ask questions about internet addiction.

That makes it hard to tell what is what.

15.

It's not just the amount of play, however.

Social context and people's overall wellbeing is really important for the outcomes of playing a lot.

Rather than thinking of problematic gaming as a continuum based on time, it's more valid to see it linked to groups of people.

We found that in our groups of gamers who played four or more hours a day, the only ones who were not depressed were boys who also communicated a lot online and had a lot of online friends. So rather than being about just the person or just the video game, it was a combination of person factors and types of communication that mattered. This is important from a statistical perspective, because if you give someone a survey and score them from 1 to 10, you'll be mixing people who really have problems as a result of their heavy gaming with those who play a lot of games but are showing "healthy engagement", which could wash out any associations between true problematic gaming and the problems you're trying to look at.

16.

Another important thing to consider is that as we found in our systematic review of studies taking place over a long time period, people move in and out of states of excessive/problematic gaming, and about half of the time it seems to resolve within a year or two.

This doesn't mean it's nothing, however- a year or two in a child's life is a big deal. A year or two of problematic gaming during a troubled marriage could mean divorce.

17.

Another troubling thing is that the mechanics of games and other online spaces are changing.

More and more we're seeing gambling mechanisms in games, or other persuasive techniques

that are very carefully designed to encourage people to continue to play and bring their friends with them.

In the debate about whether we are ready for a specific gaming disorder diagnosis, the controversy has polarized and devolved into name-calling over the last few years.

The other thing to keep in mind is that excessive use is subject to self-control, and not a lot of researchers are looking at that.

"I have a final two weeks from yesterday. ... I need to focus on that...it separates the game from real life and says, There's no distractions.

When I'm studying, I'm not looking down at the taskbar going, lemme see if anybody needs me."

~ID#7, Male, 54, PTSD

[2019/04/26 13:39] Carolyn Carillon: MCC: It being subscribing to the game for a month

In order to not [be] feeling like you have to log in

[2019/04/26 13:40] DrMCsquared Resident: Tony van Rooij, who presented earlier, and I have been opposed to a disorder for a while, but are starting to go change our minds based on what we're hearing about the clinical need.

These reports aren't coming out in the scientific literature yet, so it's a little hard to judge.

I still don't think a diagnosis limited to video games makes sense because of this thing right here- Harmony the sex robot.

She is the android head for a sex doll body, and currently costs about \$8,000.

[just for the head]

My concern is what happens when Harmony is affordable to more people?
If we've decided to target games because we think games are the only type of technology that people are really addicted to,
how will the people who can't stay away from Harmony get the help they need?

18.

[2019/04/26 13:41] DrMCsquared Resident: There are a lot of challenges to doing this research.

First, if we're going to use AI to try to track in-game behavior or to analyze chat for example, we'll run into the big data issue.

This is a growing field but what's clear so far is that people from different fields will need to work together

to find the best ways to analyze these data.

We also have a problem with how we collect all the evidence in one place.

In some fields there's still a really negative attitude toward games, so if you're a researcher looking to review all the papers on games,

you'll also have to include euphemisms for games - terms like "digital interactive rehabilitation technology" or "virtual reality".

We have to figure out how to take small clinical trials out into the scale of the Internet—

what do we have to do to translate the 30 people who played Tetris or Bejeweled into 10,000 people?

This will require a lot of staffing and a lot of money,

so researchers and clinicians will have to figure out ways to partner with industry to do that, like this promotion for Starbucks in Pokemon GO.

Conflict of interest is a problem in health research; we know that from the tobacco industry, big pharma., etc.

Ways around it include disclosure of financial relationships, but that might not be enough.

There's also the unintended consequences of trying to use games for good- these need to be measured in studies and they usually aren't.

"Addiction" is only one potential problem-

we should also be worried about things like privacy violations, persuasive advertising in games, and gambling mechanisms in games

(which are starting to be subject to regulatory control).

19.

Here's my vision of meeting people where they're at:

For me it was always World of Warcraft. Sometimes people in the game need help.

We can recruit WoW players who have depression for a study, then use machine learning on their publicly available data to search for patterns.

We can combine the machine learning with questionnaires that are delivered in the game,

that look like the game's interface so people don't get their immersion broken. Or too broken.

This will help us identify when people need help.

Then to close the circle, we can deliver the help they need where they're at- in this case standing on a tower in the capital city of Stormwind.

My character, shown here, is not a healer, but with training she – and I – could provide good peer support.

20.

I'd like to leave you with this thought:

the new norm of hyperconnected reality is already being replaced by mobile, augmented reality.

This allows people to be always connected, but also to integrate their online environments into the real world.

This might help people get out into public to meet people, socialize, and get physical activity--

but those benefits won't be equally accessible to all.

These fascinating new games will be everywhere, and it might be hard for people to learn to self-regulate amidst all the novelty.

And as technologies continue to evolve, we will have to evolve new methods to answer these complex public health questions about

how we can take advantage of the benefits of video games while minimizing potential problems.

21.

I would just like to take a minute to thank all of these people who have made it possible for me to do this research.

I consider myself very, very fortunate.

And a special thanks to Gentle Heron for the opportunity to talk to you all here today.

Please click the box here to get a notecard of my References list.

Hopefully we have time for questions?

[2019/04/26 13:45] Gentle Heron: We have time for one or two quick questions.

[2019/04/26 13:45] Mook Wheeler: QUESTION: Re: the point "games are tools for refocusing the mind" in vets with PTSD or suicide ideation: this involves the distraction method. It works while the game is on, but unfortunately, you cannot play a game 24/7. Have you found any *long-term* (persisting) benefit from such *short-term* game therapy?

[2019/04/26 13:45] Kevin Holloway (Jarom Cooperstone): outstanding question, Mook

[2019/04/26 13:45] Carolyn Carillon: MCC: I think one of the things I saw

This was with the women vets we interviewed

They seem to have more of a sense of

When I do this in the game, I can do it in real life

Even though I may not be able to access the tools

If I can do something to distract myself

I have a little bit of ability

I can learn how to do this outside games

Even if it takes time

It's a coping technique

You're internalizing the distraction technique

[2019/04/26 13:46] Mook Wheeler: nods. That female/male difference there is your next project :)

[2019/04/26 13:46] Seafore Perl: Any (even if temporary) relief from intrusive thought is a relief and a few moments of peace before heading back into the world.

[2019/04/26 13:46] Gentle Heron: QUESTION- You talked about hearing two people talk about "idle hands." What are some other metaphors people employ to describe their use of games?

[2019/04/26 13:47] Carolyn Carillon: MCC: oh boy, that's a good question Gentle I was just struck by the idle hands one
I'm sure there were others but I can't think of them off the top of my head

[2019/04/26 13:46] Lukey Woodget: Question interaction or influence on game programmers

[2019/04/26 13:47] Carolyn Carillon: MCC: I wonder if you mean what are the implications of this for those who make games
Is that the question?
I'll assume that is
I'll say there are 3 main things
One is to use ethical game design principles
To ensure you're not building mechanisms that are so persuasive that people can't stop gaming
The other thing would be to consider how to take advantage of the social benefits of games
Some platforms do this for a financial motivation
But some develop them as social spaces
That's what we want
And the other thing is about data
We need access to data
Some platforms allow some access
But it would be nice if developers could work with researchers
So we could study in our areas
They'd be useful for us to develop interventions

[2019/04/26 13:49] Gentle Heron: Thank you Dr. Colder Carras. Your research has many applications and you gave us a lot to think about.

I'd encourage our audience to click the giver box at the base of the podium to get a notecard of your references.

After this break, Dr. Holloway will explain how his organization trains mental health professionals to help veterans and their families cope with PTSD... using Second Life! At the end of his session, after our Q&A, we will get to go see two SL sites built to help mental health providers use the most recent research-supported strategies to provide mental health support. Don't miss that!

[2019/04/26 13:50] DrMCsquared: Thank you all!

[2019/04/26 13:50] Lukey Woodget: Thankyou DrMc

[2019/04/26 13:50] Lyr Lobo: Thank you!

[2019/04/26 13:50] Suellen Heartsong (Suln Mahogany): Thank you DrMc

[2019/04/26 13:50] Namaara MacMoragh: Thank you :-)
[2019/04/26 13:50] Eme Capalini: Thank you! Great job
[2019/04/26 13:50] Sandar Gausman: *:-,_,.-:*^`*Yayyyyyyy!!!!*:-,_,.-:*^`*
[2019/04/26 13:50] Zinnia Zauber: Thank you !
[2019/04/26 13:50] Marcel Mosswood: Thank you!
[2019/04/26 13:50] Abigail Cestlavie (AbbyCestlavie): Thank you
[2019/04/26 13:50] Elektra Panthar: 🎵🎵🎵🎵 Applauds🎵🎵🎵🎵
[2019/04/26 13:50] Buffy Beale: thanks DrMC!
[2019/04/26 13:50] James Heartsong (PeacefulJames): Thank you Dr MC/2
[2019/04/26 13:50] iSkye Silverweb: EXCELLENT PRESENTATION!!!

[2019/04/26 13:50] Carolyn Carillon: <<transcription ends>>

[2019/04/26 13:53] DrMCsquared: Thank you! If you'd like to email me, feel free -
michelle.carras@gmail.com