PROFESSOR: [UNINTELLIGIBLE] and we will spend the next couple of weeks grading them. But that was pretty fun on Friday so [UNINTELLIGIBLE]. We've been talking these past couple of weeks-- we've been talking the past couple of weeks about serious games, games for education, games as an art form, as a means of expression. And we're going to be continuing some of those discussions later on. But the whole idea is to sort of give you, to sort of prep you, for a situation where you're going to make a game for a client. And for this last assignment, you're actually going to be making a game based on a problem that Lisa is going to be talking about.

GUEST SPEAKER 1: My name is Jim [UNINTELLIGIBLE]. I'm a clinical psychologist. I work at-- I was at Beth Israel, I'm just starting at Brigham and Women's Hospital, one of the Harvard mafia hospitals. And my area is using interactive media for clinical training but especially for treatment of clinical problems. So we make computer programs to help treat clinical disorders in psychology.

GUEST SPEAKER 2: It's my turn to stand up. I'm [UNINTELLIGIBLE]. I'm a psychiatrist at UMass. I trained in the same place like Jim used to work, Beth Israel. And my focus is primarily clinical. I'm an attending psychiatrist in a variety of settings, inpatient, outpatient. And what I brought up to Jim and then Phillip was a practical question that I will try to present, which is helping psychiatry residents deal with angry, agitated, and potentially [UNINTELLIGIBLE] patients. Later this is a significant and largely unknown issue. Certainly the research is picking up, and we don't quite understand the extent of the problem. And but I'll say more. I'll save it for our presentation. Thank you for coming here.

PROFESSOR: So when they contacted me, there was the usual interest in trying to make some sort of digital piece of software to help the training residents in learning how to deal with violence in mental institutions. And immediately the first thing that I thought, well before we jump right into digital, let's try doing something in analog first. Let's try prototyping something first.

But it also occurred to me that, in the real world of game design, there's actually a lot more jobs in game design outside of the game industry than inside the game industry. There are a lot of companies out there that are basically looking for solutions. Some of which may be games. And you might end up working in some of those capacities. A lot of folks in advertising for instance are involved in games. A lot of folks who are interested in improving teaching methods, or improving simulations, working on-- trying to think of an example-- public awareness. And people who are also now working in website design and in various online services, who are trying to think about how to make their experiences a little bit more game like.

There are really really good ways of doing that, and there are really really bad ways of doing that. And for the most part what we're hoping is that, if you end up getting one of those jobs, you're going to be able to bring some of your personal insight as having actually done game design, as opposed to just copying what games have done, and just assuming, well, it kind of looks like a game, therefore it is a game. You guys know that now.

So this is kind of get your feet wet, in terms of designing something, designing for somebody else's needs. The important thing to keep in mind is, who is going to be playing your game, or who's this game intended for. And in what context are they going to be playing your game. One of the particular problems that you're trying to address, what's the part of the system that you're trying to simulate. And what kinds of insights do you hope people are going to get out of that.

The problem they're going to talk about it huge. If you noticed I uploaded actually four readings to the class website. Only one of them is required, but all of them are useful. I will be uploading more. These are all reference material for the team to use however you wish. Because the problem is so huge and vast, you don't have to solve the whole problem. You pick one thing that you're excited about, that you're interested about, and that you think that you might have a good strategy. Do the usual brainstorm. We're going to be going through brainstorming and team selection pretty much just this week. And try to identify some small part that might be addressable with a card game or a board game, or I'll talk a little bit about role-playing games in a couple of weeks. So with that being said I'm going to turn it over to you guys.

GUEST SPEAKER 2: OK so we'll try to take turns to talk about violence in psychiatry, in particular. So as Jim has pointed out, violence is a large issue. What I'm going to try to focus on, as I mentioned earlier,

rather than engaging with psychiatric patients, especially psychiatric patients on an inpatient program, which is where the question for me came from.

And obviously violence can be looked at in a variety of ways. And I think in one of the handouts that I sent to Philip, Violence in Mental Illness, they talk about the biological, psychological theories that the social dimension of violence and how it can be understood.

If you look at the human development, and no matter what theory you consider, either a traditional drive-based theory like Freud or Erikson's stages, each seems to define a certain developmental goal, and often, achieving or achieving in a faulty way that goal can create potential for aggression and sometimes violence. A little child or an adult who's dependent or needs are frustrated may try to takeover and get those met, in one way or another.

So what I use as a [UNINTELLIGIBLE] metaphor for the origins of violence is a communication breakdown. At some level, something doesn't happen right between the person who gets angry and those around him or her. So in a most generic way, basically communication is less about who says what to whom, than in what channel, and with what affect. The breakdown can occur at many levels. Again, this is the generic form. I hope I'll [UNINTELLIGIBLE] what I mean. And especially what can be done at a practical level, let's say when you are the resident on call at night. And the staff calls you up and says so and so is getting out of control. She's raising her voice, threatening, pounding walls, wanting to get out, refusing medications. How do you approach such a person?

And again, the intervention can happen at different levels. And actually one goal of the training, or potentially the game that you might consider, is what to do. How do you establish when do you engage fully, by yourself, with outside help, when intervention is minimal and you just bring pens with you, restrain the patient, use pharmacology.

So it's a continuum of interventions. I'm going to just focus on what to do when you can actually engage the patient. Again, continuing the metaphor is what Walter Fisher has described as this type of narrative, rationality, as opposed to the traditional rational paradigm that defines people as thinking beings that actually do make decisions and base their actions on evidential reasoning. Or rational people. We analyze the situation. We come up with the best possible outcome.

Walter Fisher talks about that fact that we are all storytellers, that we try to interact and understand others based on the narrative that we have about ourselves and about others. My

assumption, and again, this is just the introductory metaphor if you want, that at some point violence can be caused by a disruption in this narrative. Things don't make sense anymore. We feel misunderstood. We feel the victim of an injustice. And that those principles apply to somebody who is struggling with a mental illness. Where things have a much narrower window of opportunity than for people who are able to flexibly adapt to the demands of reality.

So we all know who this is, and the reason I put it up-- and I have to admit I haven't looked into the copyright, I know there are longer and longer copyright rules for using cartoons, so you'll have to forgive me. My point is that this is an angry person. And as someone who is communicating. I think we get quickly and clearly the fact that his emotional range may be intense, but it's fairly narrow. It doesn't cover like a spectrum.

And the communication is fairly simple. He's in distress. He is imposing his point of view, his space. He could become very aggressive and assaultive. I think that the language is very simplistic.

How would we approach the Hulk in trying to calm him down and change his color? That's the end of my introductory metaphor. And please, feel free to interrupt, jump in, and make this presentation as long or as short as you want me to. There are many slides, but I'm not going to go through every single line. I'm just using this as a stimulus for the conversation especially from your perspective and from your needs.

As I said, I'm a clinical provider, I'm a psychiatrist. I deal with patients all the time, many of whom are angry or potentially angry or potentially assaultive. And I may do things after so many years instinctively. But sometimes I have to think through, OK, this is the situation, how do I do to maximize the benefit for the patient I'm treating and to keep myself safe. I've been assaulted just once, in 15 years.

It was like in the movies. A VA patient, former Green Beret, who got upset with the system, and picked up a very heavy armchair and lifted it above his head. And we established eye contact then. I think he wondered, what should I do with this puny little doctor? Should I squash him or not? And at the end, I guess it was a last, you know, split second moment, he decided to throw it to my side. A large section of the wall came down, so I was looking at it wondering, well I could have been that wall coming down. He ran out. It took him a while-- for people to catch up with him. And two cruisers full of police officers to subdue him. So I guess, no communication there. He was just subdued.

What's the magnitude of the problem? I think it's substantial. And actually more than 10 years ago, there were some isolated reports of how significant the problem was in terms of the trainees, and especially psychiatry trainees, being the target of verbal and physical violence. On this first page I talk about medical students in one study. Numbers are relatively small. But again, the study is 14 years old.

A survey of psychiatry residents showed that assaults or threats of violence are clearly one of the most difficult events in their training. And some were wondering introspectively if this is the right field for them. Actually some students may wonder reading this literature whether psychiatry is the right field for them to go into. And as you see in the fourth article, almost two-thirds of psychiatry residents were assaulted at least once during their training.

And obviously like with any dangerous situation, the risk of post-traumatic symptoms can be substantial. Either acute stress response or longer lasting issues. The idea of improving their training and their ability to deal with the situation has multiple benefits. Those who know what to do are never or almost never assaulted. Not only that, if they happened to be exposed, the likelihood of developing post-traumatic goes down significantly. So I don't think I need to demonstrate that point any further.

The assault rate in a more [UNINTELLIGIBLE] relatively recent study, 10 years old, pretty old, you see that overall the number of assault rate was 30% to 40%. Men tended to be slightly more physically assaulted than women.

AUDIENCE: Can you define what assault means, exactly? What qualifies as assault?

GUEST SPEAKER 2: Assault basically means kind of laying hands on the person. And the assault resulting in an injury, of any kind. Skin being kind of broken through or--

AUDIENCE: Just holding the clinician wouldn't be an assault?

GUEST SPEAKER 2: Well it would be an assault because that kind of grabbing action could actually result in injury. And I think it would be probably very limiting to talk only about physical injuries, especially since the psychological consequences are often the longer lasting and much more significant. I think what the surveys have shown also is that how unprepared trainees in the mental health and outside the mental health field are actually. Often this is reduced to a few lectures, especially during orientation. And then they are thrown into the lion cage and they learn on the job.

And many of these findings are introspective. Many trainees felt that well, I didn't say anything, because I thought I was supposed to toughen up and bite the bullet and move on. Or this is part of the job, I chose this, it's my fault. Or maybe I did something wrong. Maybe I was the one who made it so the assault happened. So a lot of reasons that were just, again, not looked into. Fear of being scrutinized. How come that I'm the one that was assaulted, and not 10 trainees. How I'm going to explain this. I was so frightened that I cannot even remember clearly what happened to me.

So there are a variety of reasons why people who are in training-- and again, I'm focusing on a again a very small segment, a specific group of trainees in medical and psychiatric training. But I could easily think of other situations of people who are exposed to the potential for violence and where such training would be helpful.

Up until now, and for the most part the data that I was able to collect, and most people in looking at this have been able to collect is fairly limited. There are certain limited number of programs. Methodologically the research is quite faulty. You can just talk about how limited the generalizability of the findings are. And often people have talked about what happened in the past. So clearly the recall bias is a major limiting factor in understanding what happened.

Also, as Jim asked me, so how do you define assault. One of the biggest problems with most research in this field is that defining assault, aggression, is done in very idiosyncratic ways. It's hard to compare different studies.

So this is a compilation of what people in different areas have thought about in terms of improving the psychiatric training. And as you see most often, in the last few years, the idea of using simulation to expose the trainees to a protected environment that has clearly defined boundaries and consequences, and basically that can be repeated almost in identical fashion in order to gain proficiency, this coming up more and more.

What many training programs are doing is to use standardized patients that use actors. And that of course would behave in a programmed fashion. They make get up to you and make fists, but hopefully they'll not get so much into the role and then they're punching you.

GUEST SPEAKER 1: I think this is the real challenge, is that there's different levels of learning. You can learn kind of a list of facts, things to do if your patient starts to get agitated and threatening. And you can learn how to take a test on it and forget it the next day, especially if it doesn't come up for you

right away.

And then there's the question of internalizing it so you actually have not just kind of a working knowledge but really understand what you should do in different kinds of circumstances. And that's where the idea of role playing with live role plays for the trainees-- it could be residents, and mental health providers-- can really be helpful so they have some sense, some semblance of this kind of training. But the tricky things with these role plays is it's not easy to ensure that everybody receives high quality access to well trained actors. Here at Harvard Medical School, they probably do. At UMass, they probably do. But there's a lot of places. And if you expand beyond psychiatry to every mental health center in the country, every caseworker who is going out to visit a patient at their home, or social worker, they're definitely not getting this kind of training.

And so the ones who really I think you said before are really well trained are the nurses, actually. Because they get a different kind of training that's really pretty effective, it sounds like. But the mental health care providers often have no training. And then they're the ones who are kind of in a closed room with the person who can become really violent. Especially if it's at their home, or an inpatient unit.

GUEST SPEAKER 2: Jim was making reference to that psychiatrist at MGH who last year was stabbed by a patient in the outpatient clinic.

GUEST SPEAKER 1: You all hear about this last year? Can you just describe the situation?

GUEST SPEAKER 2: Well, it was late in the evening, when most things like this have the potential of happening. This was a neuro evaluation or [UNINTELLIGIBLE] in the Bipolar Clinic at MGH. Basically he was angry from the beginning and was able to stab repeatedly. An off guard person who just happened to walk by.

GUEST SPEAKER 1: It was a police officer, right?

GUEST SPEAKER 2: Yeah. He was one of the security people for that particular clinic. He came and he had a gun. I don't know how often off-duty security people carry their guns. But he opened and killed the patient. So he was charged. Eventually was cleared. For using excessive force.

GUEST SPEAKER 1: What happened to the psychiatrist?

GUEST SPEAKER 2: Well, the psychiatrist was admitted into the hospital and required extensive surgeries. She was stabbed in the chest and in the neck. It was a fairly gruesome-- she survived and I think she's back at work. But this is an extreme case. And I'm afraid that many of the things that we talk about, the principles that we may come up with, may not necessarily be so helpful, other than thinking back at a level of intervention. It is quite conceivable that for somebody who charges at you, you won't be able to talk him down, you won't be able to use any of the nice de-escalation principles that I'm going to talk about in a few minutes. But, figuring out what do, I think it means [UNINTELLIGIBLE].

AUDIENCE: You mentioned that nurses have a different training system for this, and it seems to be effective. What is that training, like what is different about what nurses get taught?

GUEST SPEAKER 2: Well, there are some, in most states, there are some regulations that try to implement some level of training or are designed specifically for patients who get out of control. And that's not only psychiatry. Emergency room teams have probably the most highest rate of assaultive patients, across diagnostic departments. Often psychiatric patients, especially patients using substance abuse, will get out of control. So if you want to become an emergency physician, or if you work in the field as an EMT or another capacity, you'll have to deal with these situations.

What makes the nurses somewhat better trained is that they often are the frontline staff dealing with out of control patients. And I think that's probably pretty sad, because physicians should be equally, and trainees, physicians and trainees should be equally well trained. But on the nursing front, there has been some progress. In Massachusetts, the Department of Mental Health has some mandatory training. But there's a lot of red tape there, but there a lot of helpful aspects, including aspects related to stop attacks. And I wish I could have presented a recording of a training session for staff.

When I went to it, I thought it would be something like a very spectacular kind of kung-fu, how you do it. When in fact, the emphasis is how to keep yourself safe, and believe it or not how to keep the person safe, the person that you're blocking the punches, the person that may be trying to strangle you, or keep you in a stronghold, or scratch you, or rip your hair. Again, even when you're trying to be intervene or you're trying to protect yourself, and keep the other person safe. No punching, kicking, no kind of spectacular steps.

But again, that's also I feel could be an interesting topic for a simulation. How do you interact with-- especially since again I'm a totally kind of outsider in the field. Having kids, they were asking me the other day about Microsoft's Kinect. And I thought that was really interesting because the level of interaction with computer generated interfaces is very interesting, and certainly would be a safe bet to be attacked by somebody from the TV.

AUDIENCE: It sounds like the nurses get better training because the states require them to have better training.

GUEST SPEAKER 2: That's correct. That's a part of it. I've been trying at UMass to suggest that not only the staff physicians get exposed to the training but even the psychiatry trainees and other trainees, especially in emergency medicine. They should all really know about it.

GUEST SPEAKER 1: I suspect some of this have to do with the benefits of being in a union. So a union can demand that nurses receive this better training, where the physicians don't have a union.

GUEST SPEAKER 2: It's also about numbers. On any unit, you have six, seven nurses for one physician. And the nurses are there in shifts around the clock. So their likelihood of being exposed to an out-of-control patient are much higher. Usually on these units people intervene as a team. And as a team leader that tries to apply so many of the principles I'm going to talk about. And then if there is need for seclusion or restraints, then that has to be done in a coordinated fashion. And things are much clearer, as I said, on the nursing front. Maybe because they are doing it all the time and because there are some tight regulations, because they're unionized. And at least half of the literature really comes from the nursing direction. So that's a tangent.

PROFESSOR: Just want to ride off the Kinect comment that you were making. We will be talking about a little bit more about live action games so that's kind of how you prototype something that's going to be a motion gesture computer game. You don't obfuscate. Actually having to write code to do that, that sort of body recognition, is kind of annoying and expensive. But you can test off a lot of ideas just by having two people play with coding. Safety becomes the biggest concern for the players as well. It's kind of interesting in this particular case that you are trying to teach someone how to prevent damage to both parties. That actually kind of helps you with the design a lot actually. That's only one problem. You'll go into more details about the kinds of things to prevent it escalating into actual conflict.

GUEST SPEAKER And the idea is basically to do your best to not end up at that particular extreme of direct

2: combat, which is not-- So ideally you don't have to go there. And as I said in 15 years I've been assaulted once. I'm sure I was lucky. People think that my eyebrows are intimidating. So don't tend to get very [UNINTELLIGIBLE]. Again I'm going to tell a few, you know, tell you about a few pearls and a few tricks that I personally use. It may not be helpful for everybody. Over time, you develop you own style. The idea is to be able to make an assessment and try to take preventative steps. And I think that's the secret. And this is what I hope better training may be the user simulation and gaming would be helpful.

Now I'm going to just, I'm going to jump into talking about prevention and [UNINTELLIGIBLE] but identifying how you assess and how you think about the potential for violence. And these are some known risk factors for aggression. Obviously the history of violence is the top. How recent, how frequently, those people become assaultive. What's the pattern of escalation. What are the associated symptoms. What happens before somebody becomes assaultive.

Why is this important? Because you can do, and probably should do before, you engage with the patient an assessment at that level. And it will help you figure out how deep to get involved, how likely you are to [UNINTELLIGIBLE] the patient. Versus saying, oh, I don't need this, I need help, let's go in as a team. So that-- that makes it important.

People often talk about violence and a rise in tendencies. Young people tend to be more assaultive, and there's no surprise. Also older people who have dementia and get more disinhibited and more likely to become reactive. I always like to tell the story about a patient with dementia. I was moonlighting, and he swung at me as I was passing. And then I went to talk to him. Well, I don't know, you just passed by, and I was upset, and you were the closest. So I thought I would try to-- So there was no way for me to predict that. It wasn't a serious thing, it wasn't a predatory type of assaultiveness where somebody plans. Doesn't like you, goes after you.

A colleague of mine was attacked by a patient. The patient watched when people were not around, went into the doctors room, locked the door, and started punching. So that's a totally different animal. So the distinction between impulsive, affective if you want or the type of aggression and the predatory is essential to keep in mind.

In some subcultures, violence is not allowed certainly much more frequent. People of a lower socioeconomic status may be more likely to become assaultive. Patients of a limited cognitive ability, especially when institutionalized, are way more likely to become assaultive.

And then it's many, many diagnoses increase the likelihood of assaultiveness. The top are psychotic disorders, like schizophrenia. Mood disorders like bipolar. I told you about what we call cognitive disorders, especially dementia and confusional states. Patients that have had traumatic brain injuries or that have had epilepsy.

GUEST SPEAKER 1: There's a real problem with Iraq or Afghanistan veterans, when they have had an IE explode under their vehicle. And they had a brain injury. Now they have a lot of disinhibition about violence. And they can just go off sometimes very unexpectedly.

GUEST SPEAKER 2: The frontal lobe exerts a sort of inhibitory influence on our ability to function. And that allows us to plan, to think ahead, to sequence events. This is the executive function of our frontal lobe. When it's impaired either in a trauma, or after surgery, or being in an accident, or becoming demented, that ability to operate in that fashion may be impaired. Violence is a possible side effect. Substance abuse are at the top of the list, because of the disinhibition, both during the intoxication phase and during the withdrawal people tend to become very agitated and assaultive.

There are certain personality disorders. So when we think about the percentage order, we have this enduring maladaptive patterns of relating to you and to others and to the world. The obsessive compulsive personality disorder likes to have things organized, planned. Nothing-- even going on vacation is an exhausting task. Nothing has to happen randomly.

The grandiose personalities really need this kind of feeling coming from all directions. They need to be in the limelight. They use people, not as real people but as people that provide sustenance to their own self esteem.

Two type of personality disorders are particularly likely to promote violence. The antisocial and you may have heard the term borderline personality disorder, which is basically at core has significant instability and emotions and interpersonal relationships and identity and basically their lives are a mess. Often they feel abandoned, they feel put down. They may get briefly paranoid and often they become assaultive.

So again, I'm throwing a lot of terms and definitions at you. I don't want to make this a lecture about psychiatry. But these are conditions that I think are helpful to think about.

AUDIENCE: When people with delusional disorders like schizophrenia get violent, is it usually because they are frustrated about something or is it because they suddenly have some sort of delusion

about their clinician that involves requiring them to take some sort of action that is violent?

GUEST SPEAKER 2: I think both. I think even people that have a psychotic disorder have the right to feel the victim of an injustice or feel frustrated or-- many of the reasons that I talked about could happen. But in particular, I think the other point is equally important. That they may act on a delusional conviction. Or their psychosis may also have hallucinations. And command auditory hallucinations are known to often be the forerunners of a violent attack. You talk about me and say things. Or the voice tells me, I'm going to go after you. And the person feels hopeless to resist that.

I discharged a patient, was doing great. Next day he comes back. Went home, the voice told him that he needs to hurt his mother, otherwise he'll get disemboweled. So he started punching her and then chased her with a knife. She had to hide in a neighbor's house until the police arrived.

There is an interesting threat control override here that people who have looked at violence have prescribed as being sometimes the proximal cause for violence. People feel directly threatened. And they also have this overpowering urge that they need to act on that they cannot resist.

It's a controversial concept. I'm not so sure why we should give this particular association a higher status than other delusional convictions about the neighbors watching me or planning to kill me, or putting together a variety of clues that my friends are really trying to get rid of me and then I need to protect myself.

But you are absolutely right. What's interesting even though patients with 20 psychiatric disorders may have their reasons to become assaultive, in the overall bigger scheme of things, when you look at actual violent assaults committed in society, they're responsible for a tiny one. So it's an interesting way of looking at numbers. Yes they could become violent, but the reality is that their numbers, the actual violent acts, are very small. But anyway this may just be a kind of statistical trick.

AUDIENCE: You're talking about the number of cases of violent episodes compared to the general population.

GUEST SPEAKER 2: Exactly. That's exactly the problem right there. And then there are various acute findings when you examine the patient. On what we call the mental status examination. Obviously, hostilities,

suspiciousness, agitation are all associated with violence.

I want us to focus one minute on the so-called aggressive attributional style, how do we respond to stress when we have a perception of threat. This is the threat override delusion that I mentioned. I think that's quite relevant.

What happens in conditions of uncertainty, and many of these patients may have to think in a distorted fashion. I was talking at the beginning about the communication breakdown. You have the layer of the mental illness that shrinks your options. You have a particular situation to deal with that makes you even more likely to become assaulted.

And this constellation of cognitive distortions may make it more likely for you to become assaulted. Neglecting the base information, which assigns a high weight to certain events that otherwise are low frequency, attending only to facts that would confirm your assumptions, I think--

AUDIENCE: So if the psychiatrist's office calls to reschedule an appointment, the person assumes that this is because the psychiatrist doesn't like him. This person doesn't want to treat me, they don't like me, they don't want me to be their patient because they rescheduled me.

GUEST SPEAKER 2: Ignoring facts that could disconfirm your hypothesis. I just talked to the psychiatrist who was nice to me, but still the fact that he called and canceled is the overriding explanation that he doesn't like me. Or focusing on common events just because you remember them, which is an interesting way of explaining. The fact that you remember them and it brings them up in the rack. And other disconfirming evidence is totally kind of ignored.

AUDIENCE: In spite the assumption that the train on the other platform always seems to arrive first. Because those are the ones you remember.

GUEST SPEAKER 2: Or the garden variety, the grass is always greener. And I talked about medications and street drugs. Some are more likely to be associated. Alcohol just by the sheer volume. And especially because withdrawal is so violent. It's a significant issue. The intoxication phase, your level of coordination, your perception of facts, it's just they're so off that you are more likely to lose control.

Antidepressants have an interesting impact, because in people that have an underlying tendency to swing in their moods may actually all [? blend those ?] things. You may have heard of the news of antidepressants promoting violence and suicide in adolescents. And

while statisticians are still scratching their heads to figure out the exact numbers, the truth is that mood is very unstable in adolescents.

And often initial depression may turn out to be something else. You give somebody an antidepressant, call him or her for followup in six or eight months. In the meanwhile, lots of things could happen. And I think in those cases, when actually those young adolescents committed suicide, it was not so much about antidepressants causing it. Probably the antidepressants made the symptoms worse. It was very poor followup and poor diagnostic. But anyway, this is getting too technical.

I included this last minute. This is an interesting summary of a nationwide study focusing on violence risk assessment. Let me just take two minutes about useful measures in assessing dynamic to the violence. People have looked at violence in two ways. They have put together all those factors that I presented initially. And they have looked at the perspective of those who have become violent. And they compiled the history, clinical risk assessment scale.

The problem is that when you're dealing with somebody, those scales, even though they may give you a good image of what happens in the long run, they may not help you deal with the immediate situation. So clinical scales have been used in [UNINTELLIGIBLE]. One developed in Norway, the other one, the dynamic appraisal, developed in Australia. These are the items for the HCR-20. And it's almost like a repetition of what I said earlier in terms of risk factors. This is the historical risk factors. And these are validated, because they have been used for more than 15 years.

The clinical scale is the dynamic part of the HCR. And then the risk management scale is trying to project in the future what you have to do in order to ensure safety, what could go wrong.

GUEST SPEAKER 1: So the value of these scales is kind of sizing up the likelihood of this person coming violent, in the absence of other information. The best predictor is probably what they're actually doing behaviorally in front of you. They're reaching for something heavy, I take that in and weigh that heavily. But in the absence of anything else, you know that the people who meet a certain profile are more likely to be violent as a psychiatric patient than others.

GUEST SPEAKER 2: This is a dynamic scale that looks at what happens in front of you, as you pointed out. You're considering confusion or debility, how boisterous and how verbally threatening the person is.

The most recent one is the dynamic appraisal of the situation aggression that has seven factors that seems to be the best one [UNINTELLIGIBLE] assessment or prediction of violence over the next 24 hours.

And this is an interesting psychopathy and an index. Psychopathy has an interesting history. I think the current version that we all talk about is antisocial personality. But basically refers to people with minimal capacity for empathy, whose moral dimensions is fairly primitive, who engage in stealing, cheating, violence, and don't have a lot of moral drawbacks to do it. It seems to be associated with violence, not surprisingly. And this is actually a factor analysis that identifies those two dimensions.

Now just at the end I want to talk about the de-escalation principles that I am actually now trying to incorporate in the standardized patients, because these should be fairly easy to at least present, and then maybe hopefully to teach the residents how to use in terms of dealing with agitated patients. So actually many of them are used by staff.

How to start interaction with a violent patient. How to position yourself. Within arm's length. Probably at 45 degrees. For two reasons. One, in case you're attacked, to offer a much smaller surface of the impact and also to allow you a way to escape, you have to. Not obviously to block the exit door. Stand over if the person is leaning down or in the bed. Never turn your back.

What to do with you your hands. Never make fists, or kind of keep your arms crossed, or behind you, or in your pockets, to kind of appear as nonthreatening as possible. How to regulate the eye contact. If it's too intense, it can become bothersome. If it lacks completely, then people could conclude that you are not really interested or involved.

GUEST SPEAKER 1: The thing that's important to keep in mind with a psychiatric patient is, well, a couple things. One is that mental health patients are much more likely to be the victims of violence than actually to commit violence. And this is really the outlier, the unusual case where the psychiatric patient becomes violent. But obviously it's an important situation. It does happen frequently enough to be a real concern for the providers, for their well being.

Basically there's different levels of what you have to understand how to do. One, how to protect yourself, and then two, how to protect the patient. It's almost like if your child who's 11 years old comes at you swinging, it's really different than if you're getting bumped on the subway in terms of what you're going to do. Now the person who's sitting in your office might

be a lot bigger than your 11 year old. But you kind of get the idea.

You're not trying to punish them, you're not trying to inflict any more harm on them than is absolutely needed in order to stop the situation and for you to get out, or let them out.

GUEST SPEAKER 2: Yes. And that's important, and that's somewhat counter-intuitive. I'm just thinking, I'm trying to think in terms of potential simulation, and targets for our training paradigm.

I think an important aspect is for the person who is going to the training to understand himself or herself. How what's the reaction when you are threatened. And how to continue to think on your feet. And take decisions that are not based on a flight or fight or tend and befriend attitude.

This is not about dealing with a common situation. This is when you have to maintain your ability to remain therapeutic and helpful and to minimize harm to yourself and certainly harm to the other person. And the truth of the matter is that many people in these situations react the way that they've always done.

I gave Jim the example of a social worker I work with, who every time when she is confronted by a patient, she gets angry and she gets defensive and tells things to her that I find are hurtful. And they are just adding gas to the fire. I need to intervene because you feel that it's almost like, you know, I'm there to umpire. OK, time out. Stop. We need to do something else. And I try to explain to her. She just doesn't get it. Or can theoretically figure it out but doesn't do a very good job at it.

When we are angry or frightened, our behavior, the way we talk, the way we track, changes. And those things can be major triggers for the other person.

GUEST SPEAKER 1: If you're staying really calm, and the other person's escalating, that's a real dampening force on that other person from escalating even more. And it's really, really hard to do, to stay professional. And recognizing that this aggression is really a medical symptom. It's like if they are bleeding on the floor. The difference obviously is that it could actually hurt you, the provider. But you need to recognize it as a medical symptom that needs to be dealt with as opposed to taking it really personally, or you being violent back.

GUEST SPEAKER 2: How do you appear. How do you-- obviously, being calm, centered, self assured is always helpful. It's the message that you're conveying.

Often if you respond to anger by being fearful or angry yourself, obviously these will just escalate. Or if you're fidgety and pacing, and gesturing yourself, and wondering, so what do I do now, I think the other person would clearly pick up that feeling.

Touching most often than not is not a good idea. Even though instinctively we would like to calm the other person down or wonder what it is. This is how we learn to show empathy and that we care, we want to help. Well, it may not be a good idea.

And then this could be a topic in itself. Active listening would be the most-- if you want the buzzword, in terms of the verbal de-escalation principle. Often when I'm called, and many of my colleagues are called in such situations. I introduce myself. I'm telling the person no matter how agitated he is why I'm here. And I'm trying to understand. I may not respond or react to the person's curses or threatening behavior. Of course I try to maintain a safe distance.

And I continue my assessment. Can I deal with this, or I need help, or I need to stop and find another way. And I give that person feedback about what I see, how he or she makes me feel. I feel you are threatening, I feel uncomfortable, I think we need to stop. Do you want to talk? What are the issues that you're dealing with? And I also explain and set limits on what is acceptable and what is not acceptable. Often, that combination works.

I listed pharmacotherapy and seclusion restraint because they are part of the process, and I think I would like people who are trained for this to understand that those things are available. Any questions so far?

AUDIENCE: I've just got a couple of comments on [UNINTELLIGIBLE].

GUEST SPEAKER 1: Yeah. We can do that. And also I wanted to suggest and see what you think about this, if someone would like to play the role of a patient, I can meet with you briefly and just kind of prepare you to do that if anybody is interested in taking the role of the aggressive patient. You'd like to do that? Why don't you and I step out for just a couple of minutes. And then [UNINTELLIGIBLE]?

[INTERPOSING VOICES]

PROFESSOR: So there's a couple of things that have been brought up already, immediately seem to be possible places where you guys can think of what you're doing to do your project on. There's identifying factors. There's a whole bunch of different schemes and different metrics that

people have been using. All the way from known personality types to socioeconomic factors and personal history. You could make some kind of [UNINTELLIGIBLE]. I can imagine, some sort of like can you figure out enough information before it's too late.

The dynamic assessment of violence seems to be more of a time pressure kind of thing. Because you almost have to figure out on the spot. But factors are very different. But similarly I can find de-escalation. It seems kind of interesting, because it almost seems like you could make a word game. Or a face to face kind of thing out of that. Can you remember what you're supposed to do in conversation with each other without missing any of the [UNINTELLIGIBLE]. And that might be something. That would be like a live action game but not necessarily a physical game. It would be more like a party game.

GUEST SPEAKER 2: One way-- this is, by the way, I didn't want to go there to make this too long. But these are some parts of a standardized patient that I'm putting together, then I'm going to try actually to talk to the simulation department at UMass, to be played by an actor. And this would be the training goals.

And I'm really particularly interested in how people respond when they are exposed to an angry situation or even to an angry face. What do you have to do in order to de-escalate the patient. And what I think I'm going to suggest to the actor is that, you are in the room and you're pacing up and down. And appearing angry. And you're allowed to use some generic swear words. And to have a number of complaints. Could be a number of them. Nurse was too late to give me the medications. The girlfriend didn't come in time. You owe money. You just had a job interview today and you missed it because you're in the hospital. Could be a number of things.

And then the person approaches you. The trainee should follow some rules in terms of the verbal and nonverbal de-escalation. If that person is able to engage you, you can become less angry, less agitated, more interested. Pacing less, lower your voice. If the trainee is just doing the right or wrong things, you either stay at the same level or get more and more angry.

Of course, it's fairly demanding for a standardized for an actor, because the nonverbal elements are easy. How you regulate the distance. How you look, how you approach. You inhibit your natural tendencies to pat the person on the shoulder, whatever. But the verbal aspects are more difficult.

AUDIENCE: Improvising dialog on the spot is hard.

GUEST SPEAKER 2: Exactly. But at the same time, the goals of the dialog are not. Because you should probably find out what's going on, even though, let's say, the actor will try to tell you about his life, and how miserable things are. You know, I lost my job, and I was kicked out. But you need to try to bring the person to what really happened. I think that's very, very helpful because you're pinning down a particular conflict that triggered it. And if you are able to do that, then you can take some steps.

OK. I have a patient right now who has difficulty expressing herself. And systematically there's one particular shift where the staff is not patient, doesn't wait for her. You just need to give her a little bit more time. And she gets upset and angry and starts pacing. And I have to every time say, please, listen to her. Or she comes up to me, she tells me the story and then I have to go back to the staff.

People just don't have the patience or don't care. So that's just a simple intervention. This is why you need to find out what's going on. And then, if you can get more information about what brought the person to this place.

GUEST SPEAKER 1: OK. I think we're prepared. She did role play before I showed this, because [UNINTELLIGIBLE].

GUEST SPEAKER 2: Do you want to do it? You've been trained.

GUEST SPEAKER 1: No. You're the expert actually.

GUEST SPEAKER 2: OK. Alright. Let's see what happens to me. [AUDIENCE LAUGHTER] So, I'm Dr. [? See. ?]

ROLE PLAYING PATIENT: Where's John? I want to speak to John. I respond to him and I want him. Why isn't he here? Why?

GUEST SPEAKER 2: Who's this person? I don't know.

ROLE PLAYING PATIENT: Where's John? I only want to speak to him.

GUEST SPEAKER 2: Well, Nurse John is not available.

ROLE PLAYING PATIENT: [BANGING NOISE] Why isn't he available? Why? Only [UNINTELLIGIBLE]. I don't want to talk to you right now.

GUEST SPEAKER 2: How can I help you?

ROLE PLAYING PATIENT: Get Johnny.

GUEST SPEAKER 2: OK. I can try to see if he's around.

ROLE PLAYING PATIENT: [BANGING NOISE] You could [UNINTELLIGIBLE] now.

GUEST SPEAKER 2: OK. But what else can I do?

ROLE PLAYING PATIENT: Um. An education. Stop it. Not good. Try to poison me. You all want me dead.

GUEST SPEAKER 2: What am I trying to do to you?

ROLE PLAYING PATIENT: Doesn't [UNINTELLIGIBLE].

GUEST SPEAKER 2: OK. I can talk about that. So tell me what kind of problems do you have with the medication?

ROLE PLAYING PATIENT: Trying to poison. You all want me dead.

GUEST SPEAKER 2: So you don't think the medication is helpful?

ROLE PLAYING Course not. Trying to kill me.
PATIENT:

[TEARING NOISE] [LAUGHTER]

ROLE PLAYING They're watching me.
PATIENT:

GUEST SPEAKER What else can I do to help?
2:

ROLE PLAYING [INAUDIBLE] family.
PATIENT:

GUEST SPEAKER You want me to contact your family?
2:

ROLE PLAYING No. I hate them all. They're all against me.
PATIENT:

GUEST SPEAKER It must be very hard, to not have anyone to talk to or feel comfortable with.
2:

ROLE PLAYING That's why I want to talk [UNINTELLIGIBLE] with John.
PATIENT:

GUEST SPEAKER Well, I'm sorry you're struggling so much. And I know we haven't met before. But I'm here and
2: trying to be helpful to you.

ROLE PLAYING You want to kill me, don't you?
PATIENT:

GUEST SPEAKER No, I don't think I want to.
2:

ROLE PLAYING [GRUNTING]
PATIENT:

GUEST SPEAKER So we have a number of options. And I think you look angry. And you're scaring people and
2: you're scaring me.

ROLE PLAYING PATIENT: Fine.

GUEST SPEAKER 2: You're scaring me.

ROLE PLAYING PATIENT: [UNINTELLIGIBLE] You're just laughing behind me. You're not scared. You're just laughing.

GUEST SPEAKER 2: No, I think you're a big, strong guy. And when you get angry and upset, you get to be intimidating. And there are other--

ROLE PLAYING PATIENT: Is that why you're going to poison me? Scared of me?

GUEST SPEAKER 2: No. Well, I'm not trying to hurt you. But we need to come up with a solution. Because you could get hurt and other people could get hurt. So we need to do something about that.

ROLE PLAYING PATIENT: I would be better off dead. Everyone wants me dead.

GUEST SPEAKER 2: Well. I understand you're quite distraught today. And I want to help you. I may not be able to, right away. I'm going to try to get the nurse that you want. But what if I do not get him? What's the next best thing?

ROLE PLAYING PATIENT: [INAUDIBLE] I don't know.

GUEST SPEAKER 2: Would it help to contact your family?

ROLE PLAYING PATIENT: Maybe mom. I want my mom.

GUEST SPEAKER 2: OK. I can try to reach out to her. And do you think that if you change the medications maybe you can try a combination that could help?

ROLE PLAYING As long as it's not poison.

PATIENT:

GUEST SPEAKER 2: OK. I hear you. You don't like the medication. You think that it's hurting you. But it's helped in the past. And maybe a different combination would be better. Hmm?

ROLE PLAYING PATIENT: Maybe.

GUEST SPEAKER 2: Maybe? Well, thank you. We can go on like this.

[LAUGHTER, APPLAUSE]

[INTERPOSING VOICES]

AUDIENCE: I have a question concerning about the disruption of narrative model of why violence occurs. Is that pretty much accepted as the way--

GUEST SPEAKER 2: I just made it up for this.

[LAUGHTER]

AUDIENCE: I was just wondering if there were competing, different theories, it might be useful for people to understand more than one model, or is that [INAUDIBLE].

GUEST SPEAKER 2: The narrative perspective is, if you want, a cry from the past. I think the last 20 years, in science and certainly medicine, have been dominated by hard evidence. Actually, the evidence-based medicine has been taking over the entire world, as the ultimate standard. So there are lists of the strength of the evidence, and randomized controlled designs are the best, and clinical impression anecdotes are the worst.

So on this map, the narrative or a person-like story about the patient may not be if you want the accepted model today. But I think in dealing with individual cases, I feel that makes a lot of sense. When you have to deal with somebody who is very distraught, if I tell him that the best available evidence was published two years ago and showed that, you know, 20 milligrams of Abilify would work best for psychosis, I'm not so sure that you would fuel the warmth and the empathy.

But the reality, it could be that that evidence is is right. He's psychotic. And he tried to a variety of medications. Some of them made him fat and pushed his triglycerides up and raised his blood pressure. If I switch him to Abilify in two months, he'll get better. But dealing with the immediate issue, I think it's just, it's something else. And that knowledge about medication, while helpful in the long run, will not make it very good.

So this is why I came up with if you want, for the purpose of this meeting, with a way of creating a metaphor that could sustain my verbal and nonverbal de-escalation. I'm trying to create some sense, some coherence, some meaning, some meaning to that interaction. And in doing that, I'm empathic and I'm trying to channel the energies in a way that it's almost like a beginning. He's distraught. He's ready to give up. He's ready to shut himself away from the world. I'm trying to reach out to him, without becoming his friend, without becoming his brother or father. And I think in a sense I'm restoring the meaning of his narrative. Somebody cares, somebody reaches out.

PROFESSOR: Because it seems like a very interesting system for people, for designers to play with. The idea of trying, even though there is this historic narrative, and you may not know enough about the narrative to be able to act on it. But you'd find out things about it by talking to the patient. And what you're really trying to do is make things fit within that person's narrative.

GUEST SPEAKER 2: You're filling the blanks that were kind of somewhat destroyed by events. And it could be a variety of events. And at times you have to use your imagination. It's almost like intuition. I mean, I know the principles from every case, but how I'm going to do it, it's not pre-programmed.

PROFESSOR: Seems like that's also something that you could then play with from a design point of view. This idea of disruptive narrative, and then how do you put it back. Just like putting the pieces back together [INAUDIBLE].

GUEST SPEAKER 2: That may be the reason-- and that's another speculation, I'm just making this up-- why adventure games are so powerful. Because, in a sense, you're finding a substitute narrative that is much more controllable than your own. And for the time of the game you're there. It's almost like you're buying a few minutes, 10 minutes, 20 minutes of a different story line.

PROFESSOR: Actually, one of our researchers here looks specifically at adventure games. And her point of view is that playing adventure games is like being a performer who hasn't been given the script. You're still an actor in the story, and you have to figure out what that story is in order to

move it along.

There's one other thing that I do want to bring up. Obviously, I don't want any of these games that you guys are working on to be quizzes, to be really fun quizzes, even. [INAUDIBLE] all this stuff is about. I do want you guys to be learning games. And not just Trivial Pursuit, Psychiatric Version. That's kind of pointless.

We have had games in the past in this class where people basically pulled questions out of a hat and had to answer them, with various penalties. Kind of fun, but that's not what I've been teaching you guys.

So try to think about systems. Try to think about all these things that they want their trainees to learn. Think about how they can engage with the system, in some small way, for your project.

AUDIENCE: Can I ask a question? What are your thoughts, or what are the field's thoughts on lying to people, so mitigate a situation.

GUEST SPEAKER 2: Well, I would call lying a distortion, in a very general way. And when people lie, they have to make a decision. Often, people lie for a variety of reasons. What I always am surprised by is the reason to make friends, to get friendly, to resolve a situation. And I don't believe in lying as a communication tool. Given, it may make things easier in the short run. Certainly clinically it's not helpful.

I was telling you about patients with borderline pathology that has this affective and relational instability that is basically taking over their lives. They are some of the most accurate lie detectors that you can imagine. You cannot design something more perfect than that. Especially having been in the system for a long time. They can feel the lie even before it comes up. And if you're going that path with them.

AUDIENCE: So this role play, for example, if you told Bobby, well, let me go get John. You wait here for a minute. And then you know that John is not working right now. He's nowhere in the hospital. But you just told him that to safely get out, then you get security to come back in with you, and you can subdue him or something.

GUEST SPEAKER 2: That's a great example. And that happens all the time. Because often when you're in this place, many of your requests are unreasonable. So you need to set some limits. And eventually you'll end up setting some limits.

He could have continued to escalate until attacking me, breaking everything in the room. I usually tell them about how they make others feel. How unacceptable some of their behaviors are, and what are the consequences. So I'm going to probably tell you if this continues, I don't have any other choice but to call security and you may end up in restraints. And with a chemical medication, it could be injectable, you can take it by mouth. So I'm coming up front with how the next few minutes, the proximal future, looks like. As opposed to kind of fudge it and get on his friendly side, and, oh I don't mean anything, but the security will put you in restraints.

So I don't want to buy him out by just becoming his friend. If that involves lying-- that's-- some people do it. When you're in the corner, you're-- OK, so what do I do now. A little lie won't hurt. And you do it. Maybe it's just my--

GUEST SPEAKER 1: What you just mentioned too, that sort of like good cop, bad cop. Well, I wish we could have more of a conversation here, but security needs to put you in restraints. Security's the bad guy. When that's exactly where you want the patient to be anyways.

GUEST SPEAKER 2: I'm OK, but you know Jim. He doesn't tolerate it. He's the director and he's going to--

[LAUGHTER]

GUEST SPEAKER 2: Does that answer your question?

AUDIENCE: Yeah. Would you-- [INTERPOSING VOICES]

AUDIENCE: I guess my followup is would you ever sneakily put medicine in someone's food or do something [UNINTELLIGIBLE].

GUEST SPEAKER 2: It's not only a lawsuit waiting to happen, of a major magnitude, but I don't think it's right. Even though probably reality is that family members and sometimes even providers in nursing homes may do that. But I think it's--

GUEST SPEAKER 1: You may need to treat the person against their will, which is often meaning putting them into physical restraints, which is usually like leather kind of things, kind of a straitjacket thing, or maybe to a bed. And maybe physically inject them with something to really sedate them. But you should always be telling them what you're going to do, right. And the reason why you're

doing it. Even if they don't have any choice in the matter.

GUEST SPEAKER 2: And if you feel that the person is unable to comprehend, then you may need to work towards appointing a guardian who will take decisions for that person. And it's not necessarily that the legal field has pushed itself very hard in field. But I think it's fair.

You meet the person where that person is at, and try to be helpful. And I think, in my view, there is no substitute for being upfront and saying this is what's going to happen. He may not be my best friend, but he knows exactly. I'm telling the patients often ahead what's going to happen. In that sense, I'm giving them choices.

So if I end up taking them to court for commitment, they know that. And you would be surprised how angry they are at the beginning and how OK they are later. And how often they come up to me and say, thank you, I was in a very bad space and I didn't want to, and I fought you all the way but I think that was the best solution. I don't necessarily do that to get that thanks. I just do it as a principle.

Often it doesn't come. It's not like people are grateful. Often they leave the hospital.

GUEST SPEAKER 1: Let me show a little of this training, just a few minutes. This is a project I've been working on a lot for NASA, which is basically to develop a mental health support system for the long duration space cruise. And this is kind of a whole other topic. But just one piece of this was teaching the astronauts how to manage conflict, interpersonal conflict more effectively or safely. Astronauts being a very different population from what we were talking about.

[VIDEO PLAYBACK]

--Welcome to the virtual space station, where you can access training and resources to help deal with the stresses of long duration space flights. In the training simulator, you'll interact with virtual crew members to learn and practice managing some of the problems that might come up on long duration missions. The resources modules has more advanced training that you can do to learn about adapting to the stresses of living in isolation, plus interviews with long duration flyers. It also has a number of ebooks and audio books on dealing with stress. Plus survival stories about polar missions and other adventures. In the self-assessment module, you'll find questionnaires--

[END VIDEO PLAYBACK]

GUEST SPEAKER 1: This is basically the whole interface. What I'll show you here is our simulator.

[VIDEO PLAYBACK]

--This is the training simulator. Click on the topic you would like to learn about. Then the coach or mentor for that topic will takeover and guide you through.

-- This is the conflict management part of the simulator. We recommend that you do the 10 minute briefing first. After you complete each simulation-- [INTERPOSING VOICES] Here's how these simulations work. You're flight engineer one, or FE1. Your crew mate, Chuck, is flight engineer two.

We'll be giving you three choices of what to say or do. You can roll your mouse over them to hear how they're said. Even though some options are more likely than others to reduce the conflict, I recommend that you try out options you might not choose in real life. That's because all paths in these simulations lead to teaching points. You can click the backup button anytime if you want to change your choice and go down another pathway. You can click on the fair fighting manual at any time to read some tips. You'll also find this manual in the resource module's library. Now as you go through the simulation, I'll be right here coaching you along the way. OK. Back to the simulation.

It's four months into your mission, with five and a half left to go. So far, the mission's been going pretty well. But you're both tired, having had to sleep shift last night.

-- Is your display getting squirrelly? Shoot, mine too. Damn, I think the whole system's down. It was the wrong cable. When I was installing the recorder I disconnected the A10 cable. I fixed it right away but I think it screwed up the whole system. Look, if ground calls, don't tell them about the cable.

-- Ah, this is a tricky situation. You believe it's important to tell the ground what happened. At the same time, you don't want Chuck to get in trouble. What's your response?

-- They'll spend hours trying to figure this out. We got to tell them. What's wrong with telling the ground.

-- You're saying make a choice.

-- OK, but you're putting me in a bad position.

-- I know. But thanks you're a real friend. I owe you big time.

-- Houston, this is FE2. Go ahead. No. Negative. I have no idea. Yeah I know. I already got the reboot started. No, I guess it's too early to say what the impact is. Roger that. I'll let you know if it happens again. FE2 out.

-- You're feeling very anxious having just heard Chuck lie to the ground. You're worried that this might backfire on you, if the ground finds out that you knew what happened. This makes you very angry at Chuck. How would you like to respond?

[END VIDEO PLAYBACK]

GUEST SPEAKER 1: The reason I'm showing you this is that this is one approach that I've taken to teaching how to handle an interaction with somebody through sort of a simulation. Now this is obviously not a game. There's no score. There's no time limit. It's more of an interactive movie. But with the teaching points here, just like what Cesar's given you is, we can give this to an astronaut and they'll read it in 5-10 minutes and say, yup, got it, what's the next thing. That doesn't mean they actually can use it, remember it, absorbed it. and I'm not saying that this is the way they should do your games. But that this is one approach that we've taken to try to get them more involved with the material in more of a simulated way.

We can just do maybe one or two more of this. What would you like to do here?

[VIDEO PLAYBACK]

-- Chuck, we need to talk about this.

-- What is there to talk about? Ground doesn't need to know every single little detail, alright? Plus if we do tell them, next thing you know we're going to be all over the news.

-- This was a good choice. Even though Chuck seems exasperated, you know what's going on in his mind. Understanding what each other is thinking goes a long way to solving conflict. Chuck is concerned about the ruckus this might cause about negative media attention. But now you have something to work with. What's your next move?

-- I know you-- you've been doing excellent work so far. I can see you're really scared of them. I know you don't want to draw a lot of attention. What'll you think will happen if they figure it

out?

-- OK. You got a point. I'll get fried. Especially if it looked like I was trying to cover it up. You know, this really is a team issue.

-- On one hand, you seemed to get Chuck to come around to your perspective. But the ground really needs to know what happened. On the other hand, he's asking you to share the responsibility, even though it really wasn't your fault. You have mixed feelings. You don't want to be blamed for a mistake you didn't make. But you're concerned about keeping a good relationship with Chuck. How are you going to respond?

-- I'm sorry, Chuck. But this was your mistake.

[INTERPOSING VOICES]

[LAUGHTER]

-- Houston, this is FE2.

-- Go ahead, FE2.

-- Houston, I think we found the problem. The instructions you sent up for the recorder had some serious problems. When you follow the recorder connect procedure, you can end up disconnecting A10. It may need to be validated.

-- Copy that, FE2. The procedures team ran through this in the mock-up, but they can give it another look.

-- In any organization [LAUGHTER] Sometimes this can help to create a bond within the workgroup, because everybody has a common enemy. But, even though scapegoating the ground may keep the crew unified for a while,

[END VIDEO PLAYBACK]

GUEST SPEAKER 1: OK. You kind of get the idea. We'd like to be available by email, in case you guys have any questions.

PROFESSOR: I'll sent out some tech information to the class list and we're probably going to spend the rest of this week being around all of you so we're not quite sure yet exactly what we're going to do yet. Hopefully [UNINTELLIGIBLE PHRASE]. I just have a couple more [UNINTELLIGIBLE]

things to do. I wanted to thank you guys first of all. [APPLAUSE] So let's see. On next Wednesday, which is the Wednesday right before Thanksgiving, I think a couple of folks are probably going to be getting out-- because I've been hearing some daffy stuff about what the TSA might be doing, and what people have been doing in response to TSA [LAUGHTER]. Getting to the airport early, if you are flying out, might be a good idea. Because if everybody decides to refuse the bag scanner scans and the body searches, then we're talking about some real delays. Anyway.

So I think what I'm going to do is [UNINTELLIGIBLE] this class. If there are teams who are really wanting to do a live action game, and they want to get a head start on that, talk to me directly. And maybe what we can do is, meet up with you as a team. And try to get some of ideas across. Do a brainstorming with me.

I will also get into talking about live action games the following week. I'll schedule one of the classes for that. So we're not going to miss that topic. I just worried that if we get to it too late, and you are making live action games, then you don't have enough material to work with.

Finally, about this assignment, if the subject matter is at all uncomfortable for you to work with, and you can't really find something in this fairly large topic that you will be comfortable working with and you can't find a team, talk to me directly. And we can work out some other assignment. I can't say that I have an assignment in my back pocket all ready to go, and more likely than not, I'm half-assing it too. I would much prefer folks to work on this problem that I think is fascinating. And a pretty big problem that you can find some small project that you're comfortable with. But if you are, I don't want to make anyone uncomfortable due to [INAUDIBLE]. So just talk to me.