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**PROFESSOR:** Hello and welcome. My name is Chris Ariza, and this is 21M.380, Live Electronics Performance Techniques. What we have here is a rather unique ensemble. You should probably be asking what is this ensemble. Some people refer to these sorts of organizations as laptop orchestras. Although this is indeed an orchestra of laptops, we've looked more towards the traditions of jazz and improvisatory music and early live electronics performance, where each musician is responsible for improvisation, contribution, and real-time composition at a level maybe not found in every orchestra.

So what we've done here is we've started with a common interface. And that is the Dual Analog Game Controller along with the Pure Data synthesis language. And so you'll see that each of us have one of these controllers. Using a common controller with a number of different instruments allows us to reach a certain level of virtuosity with these controllers. Of course, virtuosity with these controllers is more often associated with video games, we are going to harness that virtuosity and put it more towards music-making.

So from there we've explored a number of different approaches to improvisation, composition, and performance. Each student has explored their own interfaces and design of their own instruments, some of which you'll see here today. And we've prepared a number of works for you. A couple of the works are compositions by me for the whole ensemble that explore my work in algorithmic composition and live electronics on a large scale.

Additionally, in groups the students have worked on what I call performance frameworks. These are contexts for improvisation and composition. And we will go through those as we proceed.

The first work is, again, by me. I call this "Work II." This work is an exploration in rhythmic and textural heterophony as we move through three distinct landscapes. I hope you enjoy the concert.

[MUSIC PLAYING]

[APPLAUSE]

**GUEST SPEAKER:** So for "Fruit Loops," what we'll be doing is using a loop pedal to first lay a track and create a loop of music. And so the chord will actually be passing from person to person, and each person will add to that loop. So what we're going to do now is just go down the line and explain a little bit about our instruments.

So this right here is a Victorian oscillator. And it's proof that you can create electronic music very cheaply. This is literally a battery, a small speaker, one of those little tabs from a soda can, and a piece of tin foil. So you too can make this music.

**GUEST SPEAKER:** I'll be playing software bagpipes today in addition to a couple of other instruments that Professor Ariza designed for some percussive sounds and a couple of instruments that you just heard in "Work II."

**GUEST SPEAKER:** I'm going to play [UNINTELLIGIBLE] in a different way, on this small keyboard.

**GUEST SPEAKER:** I'm [UNINTELLIGIBLE] different pitched screams. So some of them are screams from other songs. Some of them are just screams that they use for movie backgrounds and stuff. So you'll just hear [INAUDIBLE].

**PROFESSOR:** Are you going to build on the scream?

**GUEST SPEAKER:** Huh?

**PROFESSOR:** Are you going to build on the scream?

**GUEST SPEAKER:** No. I don't think so.

[LAUGHTER]

[MUSIC PLAYING]

[APPLAUSE]

**GUEST SPEAKER:** So next we're going to be improving a little. And improvising in an electronic ensemble is exactly how you improvise in any other ensemble. We're just going to be choosing some instruments and playing with them. While sometimes when you improvise, you give some structure, we are doing the most basic structure we can. So we're going to start. We're going to play. And then about six minutes later, we're going to stop. And it's going to sound nothing like anything else we've done before, but hopefully it'll sound pretty good. Thanks.

[MUSIC PLAYING]

[APPLAUSE]

**GUEST SPEAKER:** So next-- there's a long tradition of improvising to movies, because you get a nice story with that. So we wanted to do that. But we wanted to improvise to an amusement-park ride. So one of my favorite amusement-park rides is Disneyland's Haunted Mansion. So how many of you have been to Disneyland's Haunted Mansion or Disney World's? Yeah. So it's a great ride. It's a great story. And we're going to be playing music to that. So I'll be playing-- [INAUDIBLE]. So I'll be playing a noise instrument to give you a certain ambiance that you expect in a haunted house.

**GUEST SPEAKER:** I'll be playing my spooky instrument, which also uses this gamepad interface. But it's designed to give you spooky or ominous background noises.

**GUEST SPEAKER:** I'll be playing a sample bass instrument also on the gamepad with various sound effects and loops.

[MUSIC PLAYING]

[APPLAUSE]

**PROFESSOR:** All right. We have one more piece for you. This is titled "Work III," another composition by me. Before I describe a little bit about this piece, I want to thank Peter and all the library staff for giving us this excellent opportunity to use their beautiful space and to do something a little different in here. Luckily we're indoors. Otherwise we'd be a little problematic. Thanks also to the music division for their support, Curt at OpenCourseWare, and all of you for coming. Really glad to have you guys here today.

Finally, this work. This work explores a number of approaches to algorithmic design, algorithmic composition, both at the micro level with a stochastic synthesis instrument, which you will hear as a strident, bright sound, and also at the sort of macro level where we work with combinations of algorithmically-generated and combined patterns. Thank you very much.

[MUSIC PLAYING]

[APPLAUSE]