

## 2021-22 CAWD “3D Animation / Game Design” side of our Advisory Board meeting minutes.

### Faculty at meeting:

- **Will Bohmann**
- **Matt Cronin**

### 3D Animation / Game Design Advisory Board Members:

- **JoAnn Patel** - Champlain College
- **Anthony Daniels** - River Bend Career and Technical Center
- **Curtis Aube** - Union Street Media / Champlain Game Festival
- **Joshua Buck** - Champlain College
- **Chris Tall** - WayForward Technologies

**Focus 1)** As we move farther into texture painting, I see that Adobe has purchased Substance Painter. Their representative told me that it would be part of the “Back to School ‘22” version of Creative Cloud - so we would have access to it next year. This year we did texture painting in Blender. Would it be better to migrate our texture painting lesson to Substance Painter? Sticking with Blender would allow us to get practiced in one program, and that program is truly open source for the student in the future. Substance Painter would only be free for the student while in class, as we pay for their Creative Cloud subscription - but it is an industry standard. Thoughts?

**JoAnn Patel** - Substance Painter is industry standard, so it is important to learn, but if it is just one lesson then sticking with Blender is fine. We get very detailed into Substance Painter in our Intro to Modeling & Texturing course, starting with the very basics and then moving on to more complex, multi layered textures. So I think it depends on how much time will be devoted to texturing in class. If a whole semester is devoted to modeling and texturing then it is worth getting into Substance Painter. If it is just one lesson then it probably isn't worth it.

**Anthony Daniels** - It's so difficult to say these days. The “industry standard” is what I would say you should probably go with... but there's so much industry crossover that who's to say what the standard program should be? I have former students who went to college for web design that are now in tech industries that didn't even exist back then. My heart says keep it in Blender; students can learn in one program, it's open source if they decide to try and self-publish, and as others have said, if a studio in the future is looking to have their workers use Substance Painter, they're likely to be fine with having their workers learn it on the fly.

**Curtis Aube** - I have only done texture painting in Blender, so I can't say too much about Substance Painter. You can do quite a bit with just Blender including baking and mixing

textures. I think it's a useful skill to have. With this skill set, students can continue to work on their portfolio after school. On the flip side, if you have access to Substance Painter it seems like you may as well at least introduce it to students so they at least get their feet wet with the industry standard tool.

**Joshua Buck** - Blender has come a long way, especially with the recent release but I don't know a single operation using Blender for texture painting. Substance Painter is the industry standard for PBR texturing and I don't expect this to change any time soon. Studios usually have Creative Cloud licenses so it's at no additional cost to them (smart move on Allegorithmic's part!). IMO Substance Painter would be welcome (if not essential) on any resume or application.

**Chris Tall** - Sorry, I really don't know a lot about Substance Painter to give an informed opinion on whether you should use it over Blender. Though, I will say that I will always go for free and open source software over their proprietary counterpart. I think training your students in software that will allow them to grow their digital art skills post-CAWD is better than software that may be industry standard, but can't be used outside the classroom.

**Focus 2)** Are there any low cost barriers to entry for motion capture equipment you can recommend? Back when the xBox 360 was popular their Kinect could be used for rough motion capture, but that seems to have died off. Way back when I interned at Polhemus in Colchester and we used magnetic motion capture, but that has died off. Can you recommend or know of any budget motion capture systems or brands we could explore?

**JoAnn Patel** - We are currently looking at Rokoko and Xsens. They are budget, but they are much more affordable than mocap used to be. Mixamo has a lot of free mocap data that is available for use if you just want students to get some experience working with mocap data. That can be a good way to introduce students to mocap without having to worry about capture equipment.

**Anthony Daniels** - I have not ever used it, but I think Autodesk Motion Builder may have what you're looking for. I know you guys are already in pretty deep to the Blender pipeline, but the Autodesk stuff is free for educators (we haven't paid for the software in something like eight years).

**Curtis Aube** - This I do not know.

**Joshua Buck** - I looked into this five or so years ago and the market was still a bit of a mess, especially in the Kinect space. Seems to be lots of "reasonable" systems out there but I have no personal experience with any of them. A camera-less system is what we were looking at for Champlain, mainly for ease of use and space requirements. Obviously, this works for body kinematics and not facial.

**Chris Tall** - Sorry, I really don't know enough about motion capture to offer any useful information here.

**Focus 3)** How do you handle contracts when doing freelance work? Do you have a boilerplate contract to go back to client after client? Do you write up a custom contract for each job? Or do you not use contracts at all, and give and take over email and other communications?

**JoAnn Patel** - I haven't done freelance work in a while, but when I did I had a basic contract that I would adjust as needed per client.

**Anthony Daniels** - I nearly always have my students do contracts the same way; set up what they want their hourly rate to be, how many hours they estimate it will take them to complete the job, and then send the client an estimate. The student picks their rate, but we usually research what an entry-level person makes for the job ahead of time and go off of that. We also do gratis work as well, but it's a fine line as to what I'll allow as I don't want the public to take advantage of our students. To this point most of what we've done is on the smaller scale so this has worked pretty well for us.

**Curtis Aube** - I just use a template and modify it a bit to match the needs of the particular circumstance. I think it's good to establish the constraints early on, like timeline or budget so that you don't get sucked into doing more than you intended.

**Joshua Buck** - I only worked contracts for around 18 months total and it was about 15 years ago (animation for several games). I was at the mercy of whatever the studios had in terms of their contracts. Most were boilerplate/non-negotiable except for \$ per hour. These were for large studios and I have no experience with personal contracts for smaller clients or individuals.

**Chris Tall** - It just so happens that I am currently working as a full time freelance game developer now. I imagine that every developer handles contracts differently, but in my case I did not have to provide one. The company that I contract full time for wrote one with conditions that I found reasonable. It's been over a year, and I've had no problems. Contract developers are very common, and contracts are not very complicated.

**Focus 4)** Unity Certification - I've been kicking around an IRC (Industry Recognized Credential) for Unity this year. I've been previewing and working through the coursework to determine if this is a tangible and useful IRC for students to achieve. The cost is not substantial, but it is an investment per student. The lowest level is Unity Certified User. CAWD students can earn the Certified Web Apprentice IRC currently.. Are there other IRCs that we should be considering for CAWD students? Thoughts on a Unity IRC?

**JoAnn Patel** - I'm not a fan of software certification. I don't think it means much unless the person also has a portfolio to show they can actually use the software well.

Anthony Daniels - I don't know anything about this but I sure want to! We already do roughly eight weeks of Unity in our curriculum as-is for our Multimedia Applications CCV course; if we could throw in a relevant IRC that would be icing on the cake. Right now we have a "workplace readiness" IRC and I'm not going to say it's useless, but the students and I certainly don't love it. For some reason Adobe doesn't offer an IRC for Animate yet which is disappointing as that's another program we go fairly deep into.

**Curtis Aube** - They sound interesting, but I don't know much about them myself.

**Joshua Buck** - This may be an unpopular opinion and apologies in advance for the blunt thoughts, but in the game industry, especially for artists, these certifications have meant nothing. I'd go so far as to suggest that applicants for industry positions with certifications were always (almost) the least qualified. I feel like they're a hold-out from the days when people who used computers were called "operators". I know nothing about current IRCs but I don't recommend any of my graduating seniors to list certifications on their resumes. Perhaps the market for Unity "operators" is different?

**Chris Tall** - For people already in the industry, I really wouldn't recommend they spend time on a certification. Most companies don't ask for them, much less require them. That said, I think it would be very impressive if a high school student (even college student) were to show up to a job interview with one. If nothing else, it shows interest and hard-work. So, as long as it doesn't substantially take time away from the practical side of your curriculum, I would encourage it.

**Focus 5)** What is next / what should we be keeping our eye on for 2022?

**JoAnn Patel** - AR/MR/VR will continue to develop in interesting ways, especially for use in marketing and training. Virtual Production will continue to gain traction.

Anthony Daniels - UI/UX jobs still seem to be out there everywhere that's not Vermont. I think VR might finally be finding its niche in the marketplace and is still set to expand.

**Curtis Aube** - No input.

**Joshua Buck** - Not 2022 specifically, but given the often more technical aptitude of the CAWD students, you should really be teaching Substance Designer, especially as it is now included in Adobe CC. Also, UE5 will be a game changer in 2-3 years -- dig into the new workflows to stay ahead of the curve. The new 3D environments require more art and assets than ever. Any software experience in procedural modeling and texturing is going to be more valued than ever (Substance Designer, Houdini, Blender). Keep an eye out for foliage/tree and world-building software that works with UE5 (speed tree, etc)

**Chris Tall** - No input.