CLO3D in the Studio: Equity, Pedagogy, and Practice Across Institutions

A Cross-Institutional Roundtable Report on Digital Fashion Pedagogy between Winchester School of Art (University of Southampton), University of Brighton, and CAD for Fashion

Date: 8 July 2025

1. Introduction and Context

On 8 July 2025, staff from Winchester School of Art (University of Southampton), the University of Brighton, and CAD for Fashion convened for a cross-institutional roundtable at the University of Brighton. The session focused on the integration of CLO3D into undergraduate fashion design education, exploring how digital tools intersect with pedagogy, curriculum structures, studio culture, and student development.

Framed as an informal and collaborative dialogue, the roundtable brought together academic staff, technical instructors, and industry-facing digital specialists. While CLO3D provided the central point of connection, discussion quickly expanded to include broader themes: student engagement, curriculum overload, infrastructure inequities, assessment practices, and the emotional dynamics of digital learning.

This report provides a critical reflection on the current conditions, tensions, and opportunities surrounding CLO3D in the studio. It captures insights from across institutions, surfaces shared challenges, and foregrounds the lived realities of those teaching and supporting CLO3D integration. What emerged is a complex but generative picture of fashion education in a moment of digital transition, shaped as much by workflows, access, and institutional cultures as by the software itself.

2. Aims of the Session

The roundtable was structured around four agreed aims:

- **To share and compare how CLO3D is currently being taught across institutions**
  Including year groups, module structures, delivery models, and staffing roles.
- **To discuss what works, what doesn't, and where CLO3D fits in the curriculum**
  With attention to project briefs, assessment, integration into studio, and cross-role collaboration.
- **To explore evolving design workflows, student engagement strategies, and digital tool ecosystems**
  Looking beyond CLO3D to emerging tools, changing industry practices, and hybrid workflows.

- **To reflect on pedagogical challenges and opportunities in digital delivery**
  Including questions of equity, infrastructure, confidence-building, and cross-institutional learning.

The session was intentionally informal and exploratory, designed to foster open dialogue rather than a structured presentation. Discussion was shaped by shared practice across institutions and centred on key themes including integration models, student behaviour, infrastructure equity, and digital workflow literacy.

3. Participants and Convening Information

Participants included:

Matthew Coats – Senior Teaching Fellow, Winchester School of Art; **Carl Bartlett** – Lecturer, University of Brighton; **Craig Higgins** – Academic Subject Lead, University of Brighton; **Daniel Crabtree** – Course Leader, University of Brighton; **Rose Murray-Langdon** – Senior Teaching Fellow, Winchester School of Art; **Sharon Williams** – Programme Lead, Winchester School of Art; **Sarah Humphrey-Smith** – Senior Lecturer, University of Brighton; **Lucy Zhang** – Visiting Lecturer, Winchester School of Art; **Jess Horton** – Technical Instructor, Winchester School of Art; **Leesa Marshall** – Technical Instructor, Winchester School of Art; **Katherine** Graziano– Technical Instructor, University of Brighton; **Sam Carmichael** – Technical Instructor, University of Brighton; **Sarah Morrel**l – Technical Instructor, University of Brighton; **Erica Newton** – Director, CAD for Fashion

4. Key Insights

4.1. Delivery Models: Drip-Feed vs. Intensive

A key theme of the roundtable was the comparison between intensive delivery models and drip-fed integration for teaching CLO3D. Across institutions, different models have been piloted at various levels, with varying results depending on student experience, staffing, and curriculum structure.

Intensive Model

At Winchester School of Art, CLO3D was delivered through a dedicated intensive week in Year 2 (Level 5), situated within a denim-focused design project. This format provided students with uninterrupted time to engage deeply with the software, reducing the cognitive switching that often occurs during concurrent project work. By anchoring the CLO3D teaching within an applied context, visualising denim garments, students were able to see immediate relevance and value in their learning.

This model proved successful in building short-term confidence and competence, especially among students who had previously struggled with traditional pattern-cutting. However, participants also highlighted that, without structured reinforcement or curriculum follow-through, the benefits of the intensive week could fade. In some cases, students who missed

the intensive found it difficult to catch up, and others failed to transfer their CLO3D knowledge into later design work.

Drip-Feed Model

By contrast, the drip-feed model, where CLO3D is introduced incrementally across a semester, offered more time for students to consolidate their learning. This model was typically used at the University of Brighton, where CLO3D was embedded within broader studio practice rather than delivered as a standalone module.

The strength of this model lies in its potential for iterative experimentation, particularly when students are encouraged to return to the software regularly in relation to design decision-making. However, staff observed that without strong project integration or clear expectations, student motivation and attendance could decline. In several cases, CLO3D became perceived as optional or disconnected from the core of the course.

Hybrid Approaches and Strategic Alignment

Most participants agreed that the most effective model combined elements of both: early exposure through drip-feed sessions, followed by a focused intensive linked to a live or studio project, and then structured reinforcement in the second half of the module or year.

This hybrid strategy enabled:

- Confidence-building through safe, low-stakes early exposure
- Focused application in a time-bound format
- Integration into reflective, portfolio-driven, or concept-led outcomes

The strongest results occurred when CLO3D was not positioned as a separate technical component, but as a tool embedded into design thinking, critical analysis, and communication.

Ultimately, no single model was deemed universally effective. The success of each approach depended on its alignment with learning outcomes, studio culture, and assessment strategy, as well as the institutional capacity to support sustained delivery across roles.

4.2. Pedagogical Integration: Technical vs. Academic Divide

A consistent and critical issue raised throughout the roundtable was the disconnect between technical delivery and academic teaching in relation to CLO3D. While technical instructors are often responsible for introducing the software and supporting students through early learning stages, academic staff, who guide design development, lead tutorials, and assess student work, are not always confident or familiar with CLO3D’s capabilities.

Structural Division of Labour

This division has led to a scenario where CLO3D exists in a pedagogical grey zone. Technicians may deliver excellent skill-building sessions, but if academic staff are unable to

engage with the software, students are left without consistent feedback or encouragement to integrate CLO3D into their creative workflow.

At both Winchester School of Art and the University of Brighton, it was noted that students often self-select out of digital working, particularly in later years, because they don't see CLO3D being valued in critiques, tutorials, or assessment feedback. In effect, the tool becomes optional, not by design, but through omission.

Perception and Legitimacy

Several participants pointed out that students take cues from their tutors: if academic staff do not refer to, question, or support CLO3D work, students perceive it as secondary or irrelevant. In some cases, digital work is brought to tutorials but sidelined in favour of sketchbooks or physical sampling. This creates a false hierarchy in which analogue work is read as "real design" and digital outputs are seen as superficial or overly polished.

The group agreed that this is not just a problem of technical skill, but one of pedagogical legitimacy. For CLO3D to be fully integrated, academic staff must be supported to understand not only how the tool works, but what it can enable in terms of design exploration, proportion analysis, construction logic, and creative communication.

Opportunities for Cross-Role Collaboration

To address this divide, participants discussed the need for more joined-up planning and delivery. Ideas included:

- Co-teaching or co-critique models involving both technicians and lecturers
- Shared briefing sessions to align learning outcomes and vocabulary
- Informal CLO3D awareness workshops for academic teams, focused on capability rather than fluency
- Creating space in team meetings to discuss how digital tools are being framed across modules

Where academic and technical staff worked together on shared projects or briefs, students were more likely to treat CLO3D as a valid creative language, one they could iterate within, reflect on, and integrate meaningfully into studio work.

4.3. Infrastructure and Equity: Tools, Access, and Space

While CLO3D offers considerable potential for creative experimentation and design innovation, its effective use depends heavily on access to reliable infrastructure, including devices, software licenses, specialised spaces, and technical support. Across the roundtable, participants identified access as a critical barrier to both engagement and equity.

Hardware Constraints

A major concern across both institutions was the number of students who lack personal laptops powerful enough to run CLO3D. Many rely on iPads or older machines that do not

meet the software's minimum requirements. As a result, students are often dependent on accessing lab spaces during timetabled hours or borrowing devices from peers.

This reliance introduces barriers to independent, exploratory use of CLO3D. Students who cannot practice outside of structured sessions are less likely to build fluency or incorporate the tool into their personal workflows. For commuting students or those with limited access to campus facilities, these challenges are compounded.

Plotting, Printing, and Digitising Resources

Participants also discussed the logistical and financial realities of digital plotting and digitising. At some institutions, plotting is free but access is limited to specialist staff or bookable slots. At others, students must pay per metre, which can discourage experimentation or generate anxiety around waste.

The availability of digitising tables, pen plotters, and trained support staff varies considerably. In some settings, students queue for hours to access facilities or encounter bottlenecks due to technician shortages or equipment breakdowns. These access points significantly shape whether CLO3D is used as a regular part of workflow or reserved for isolated, high-stakes outcomes.

Space and Timetabling

The success of CLO3D delivery also depends on space availability and timetable alignment. Students need physical environments where they can work uninterrupted with the software, ideally spaces where digital and manual processes can co-exist. Some institutions described having to rotate small groups through limited facilities, which fragmented learning and disrupted momentum.

In addition, timetable clashes between studio modules and CLO3D sessions often meant students were pulled between projects with conflicting deliverables or expectations. These conditions made it difficult to position CLO3D as anything other than an add-on, undermining its potential as an integrated design method.

Equity Implications

Underlying these technical challenges is a broader issue of educational equity. Students from less financially privileged backgrounds are disproportionately affected by device access, printing costs, and limited studio time. If digital delivery is not planned with these disparities in mind, it risks further entrenching inequity within fashion education.

Participants emphasised that any future strategy for CLO3D implementation must be grounded in realistic, inclusive infrastructure planning, from procurement and licensing to technician hours, room access, and communication across teaching teams.

4.4. Student Engagement and Skill Development

Beyond technical access, participants discussed how students engage with CLO3D in terms of motivation, confidence, and learning behaviour. What emerged was a nuanced picture of students who are curious and visually literate but often underconfident, overly perfectionist, or unsure of how CLO3D fits into their identity as designers.

Motivation and Perception

Many students are enthusiastic about learning CLO3D, particularly when it is introduced in a way that is framed as industry-relevant and creatively empowering. However, enthusiasm is not always matched by perseverance. Participants observed that students often become discouraged early, especially when early results are not polished, or when they encounter interface friction. Unlike physical sampling, where imperfections are expected and embraced, digital tools are often approached with a "finished product" mindset.

This perfectionism leads to avoidance behaviour: students may attend initial sessions but drop off when they feel they are not "getting it right." Some retreat to analogue methods not out of preference, but because they feel safer. Others may use CLO3D only for last-minute visualisation, missing its potential as a process tool.

Confidence and Skill Retention

Student confidence is closely tied to the structure of delivery and staff support. Intensive weeks can offer a strong confidence boost, especially when students see tangible progress within a short timeframe. However, without structured repetition or reinforcement, this confidence often fades. Drip-feed models allow for skill consolidation, but only when supported by consistent integration into projects and feedback cycles.

Participants noted that students thrive when CLO3D is positioned not as a standalone skill, but as a way to explore proportion, silhouette, fit, layering, and movement. When they are encouraged to use CLO3D for decision-making and design development, not just rendering, engagement deepens.

Behavioural Patterns

Several behavioural trends were noted across both institutions:

- **Selective engagement**: Students often only use CLO3D when required or assessed, rather than as a voluntary design tool.
- **Surface polish over process**: When CLO3D is used, it's often for high-fidelity final visuals, not early-stage experimentation.
- **Disparity in uptake by year**: Year 2 students are more likely to engage meaningfully when CLO3D is linked to projects. Final-year students, by contrast, tend to avoid unfamiliar tools in favour of known strengths, particularly under deadline pressure.
- **Limited peer sharing**: Unlike sketchbooks or toile samples, CLO3D work is rarely shared informally among students, reducing the potential for peer learning and organic skill-building.

Opportunities to Support Engagement

Participants identified several ways to improve engagement:

- Introduce CLO3D with low-stakes, play-based exercises that emphasise experimentation over outcome.
- Build mini-outcomes into modules e.g., visualise a single garment in CLO, test a design revision digitally, or render one silhouette multiple ways.
- Incorporate CLO3D into sketchbook or reflective documentation to normalise it as a process tool.
- Use peer crits, informal show-and-tells, or video walkthroughs to make digital work more visible and socially embedded in the studio culture.

4.5. Creativity vs. Simulation: Critical Reflections on Outcomes

While CLO3D offers powerful visualisation capabilities, roundtable participants voiced concerns about how it can distort the perception of creative quality. In many cases, highly polished digital outputs mask shallow design thinking, while more exploratory but imperfect uses of the software are undervalued or dismissed. This dynamic raised important questions about how CLO3D is framed, assessed, and understood within fashion education.

The Problem of the "Polished Image"

CLO3D's rendering features can produce highly refined images that resemble fashion campaign visuals or commercial lookbooks. While this is useful for portfolio presentation, it can also create a **false equivalence between surface polish and design merit**. Participants noted that students often become fixated on producing visually impressive final renders, sometimes at the expense of conceptual depth, process insight, or material experimentation.

This behaviour is shaped by both student expectations and staff assumptions. When tutors are unfamiliar with CLO3D's affordances, there is a risk of judging outcomes based solely on aesthetics rather than recognising how a student used the tool to explore or resolve a design idea.

Simulation vs. Iteration

CLO3D can support iteration, proportion testing, and virtual toiling, but only if students are guided to use it that way. When taught as a pipeline tool (e.g., create pattern > render look), CLO3D reinforces a linear and product-driven mindset. When introduced as an exploratory environment, a space to test forms, layering, movement, and volume, it becomes a tool for design thinking, not just documentation.

Participants noted that the software's capacity for rapid, risk-free experimentation was often underused. Many students failed to see its value as a testing tool because early sessions focused on producing neat outputs rather than speculative trials.

Assessing Digital Creativity

Another key issue was the difficulty of assessing digital work meaningfully. In traditional studio projects, sketchbooks, toile samples, and physical prototypes provide clear evidence of process. In digital workflows, unless the process is captured via screen recordings, annotated screenshots, or layered CLO files, the learning journey is often invisible. This leads to a form of assessment opacity, where staff can only respond to the final image, not the thinking behind it.

To counter this, some educators have introduced reflective digital diaries, step-by-step walkthroughs, or hybrid submission formats that require both digital output and critical commentary. These approaches help foreground decision-making and experimentation rather than just the rendered result.

Reframing Expectations

Finally, participants stressed the importance of changing the culture of both students and staff around CLO3D:

- Students need permission to treat CLO3D as a sketchbook, not just a rendering engine.
- Staff need tools to evaluate CLO work in terms of design logic, material thinking, and process, rather than polish alone.
- Institutions should rethink module language and marking criteria to better reflect the values of digital craft, narrative, and criticality.

Without these shifts, CLO3D risks reinforcing a narrow definition of creativity, one shaped more by simulation aesthetics than design exploration.

4.6 Foundational Skills and Digital Literacy

Throughout the roundtable, participants emphasised that meaningful engagement with CLO3D depends on a broader foundation of design literacy. This includes not only technical fluency within the software, but a confident understanding of pattern cutting, visualisation, and adaptable digital thinking. Without these, CLO3D risks becoming a surface-level rendering tool rather than a vehicle for exploration, iteration, and design development.

Pattern Cutting as Conceptual Grounding

CLO3D was widely valued as a tool for enhancing students' understanding of construction logic. Its real-time 3D simulation capabilities allow students to test how 2D patterns translate to form, an especially powerful entry point for those who find manual pattern cutting abstract or intimidating. Several educators noted that students often re-approach physical sampling with more insight and confidence after working digitally.

Some advocated for a reversed pedagogical model, where students are introduced to digital shape-building before formalised pattern rules. This flipped approach allows them to play with volume, silhouette, and proportion early on, building visual intuition that can later support more structured learning. As discussed in Section 3.4, this shift from fear to fluency was a key driver of sustained engagement.

One Year 2 project example involved students generating three variations of a design digitally in CLO3D, selecting one to develop into a toile. This hybrid task encouraged design iteration, reinforced construction thinking, and positioned digital and manual methods as complementary, not competitive.

Adobe, Obsolescence, and Transferable Skills

There was strong critique of current digital teaching practices, particularly the continued emphasis on Adobe Illustrator. While still relevant for certain industry functions (such as tech packs and supplier communication), Illustrator was described as increasingly disconnected from creative design workflows. Participants questioned whether its dominance in curricula reflected current industry needs or outdated assumptions.

In response, many advocated for a shift toward teaching core digital logic, vector construction, bitmap layering, and visual communication principles, rather than brand-specific software. This enables students to move fluidly across platforms like CLO3D, Style3D, or even emerging AI-enhanced tools. Several noted that teaching students how to think digitally was more valuable than teaching them what button to press.

Some argued that Illustrator's persistence in fashion education reflects a legacy mindset, and called for periodic curriculum audits to align digital delivery with evolving industry standards and tools.

Digital Literacy Within Broader Workflow Awareness

These skills were also linked to workflow literacy. Participants highlighted the need to help students understand *where* CLO3D sits within different roles and production systems, whether as a visualisation tool, a prototype development method, or a collaborative platform within team-based workflows.

Helping students map these possibilities was seen as essential to building confidence in their own career paths. As discussed in Section 4.8, graduates who understand the ecosystem of roles; designer, digital pattern cutter, visualiser, developer, are better positioned to navigate emerging fashion careers.

Playful Learning and Low-Stakes Confidence Building

Finally, participants reiterated the importance of low-stakes experimentation in developing foundational fluency. Early exposure to CLO3D through exploratory exercises, such as shape distortion, avatar styling, or quick 3D sketching, helped students engage playfully without the pressure of accuracy or outcome. These tasks provided a way into the software that foregrounded creative risk-taking over technical perfection.

Framing CLO3D as a space for digital sketching rather than polished presentation not only reduced anxiety, but helped students approach it as a natural extension of their design process. As echoed throughout the roundtable, play and iteration were key to building long-term confidence, resilience, and creative agency.

4.7. Hybrid Workflows: Aligning Manual and Digital Practice

Across the roundtable, participants consistently highlighted the pedagogical value of combining digital prototyping with manual making. When CLO3D was used not as a replacement but as a complement to physical design processes, students were better able to understand form, construction, and iteration. However, aligning these workflows within curriculum structures presented both logistical and conceptual challenges.

Enhancing Construction Understanding

One of the clearest benefits of hybrid workflows was the way CLO3D enhanced students' understanding of pattern construction. Students who struggled to visualise how flat patterns translated into 3D garments found the software helpful for testing construction logic before committing to fabric. This led to fewer errors, more confident sampling, and deeper insight into how silhouette, proportion, and balance operate in space.

Several tutors observed that students used CLO3D to prototype garment changes before toile-making, reducing waste and improving efficiency. In some cases, CLO3D was used to compare alternative design variations (e.g., sleeve or collar shapes), allowing students to make informed decisions in advance of cutting fabric.

Reinforcing Iterative Thinking

When CLO3D was embedded within studio workflows, students were more likely to treat it as an iterative tool rather than a final-stage renderer. This enabled hybrid pathways where students toggled between analogue and digital modes: drawing, draping, patterning, rendering, in a way that mirrored how many contemporary designers work.

However, for this to succeed, CLO3D had to be embedded into the rhythm of studio projects, not treated as a parallel task. When CLO outputs were disconnected from physical outcomes or tutorials, students were less likely to carry digital experimentation into their design process.

Curriculum and Infrastructure Challenges

Despite its potential, integrating manual and digital workflows raised significant structural challenges:

- Timetables often did not support students moving fluidly between physical and digital workspaces.
- Studios and computer labs were separated physically, limiting spontaneous transitions.
- Technician time was often allocated to either physical pattern-cutting or digital instruction, not both.

This made sustained hybrid working difficult to maintain, particularly in shorter modules or during final-year project periods when students narrowed their focus.

Some institutions began mapping CLO3D touchpoints across multiple modules to build long-term familiarity and reduce the drop-off between digital learning and manual making. Others explored combined assessment tasks, where students presented both a digital prototype and a corresponding toile, with reflective analysis on how the two informed each other.

Design Identity and Hybrid Fluency

A deeper theme underlying this conversation was how students perceive design identity. Some gravitate naturally toward hybrid working, seeing CLO3D as a way to enrich or deconstruct physical outcomes. Others feel they must “choose a side”, analogue or digital, especially when time is short or expectations are unclear.

Participants agreed that normalising hybrid workflows early (e.g. in Year 2) helped students develop confidence across modes and avoid false binaries. By showing that digital tools can be tactile, speculative, and expressive, and that manual processes can be informed by simulation, educators can foster a more flexible, future-oriented design practice.

4.8. Student Futures: Workflow Literacy and Industry Mapping

As the conversation turned toward student progression and employability, participants raised critical questions about how CLO3D fits into students’ understanding of their future roles. While CLO3D is widely framed as an industry-relevant tool, there remains a disconnect between how students are taught to use it and how they imagine their professional identities.

Limited Role Awareness

Many students continue to orient their practice around the final collection model, seeing success primarily through the lens of the independent designer or creative director. This focus often obscures other viable career paths, such as 3D garment technologist, digital visualiser, product developer, or PLM coordinator, where CLO3D is increasingly in demand.

Participants noted that students are rarely introduced to these alternative roles in a structured way. As a result, digital tools like CLO3D are often perceived as optional enhancements rather than central to a professional workflow. This contributes to uneven adoption, particularly in final-year work where students default to familiar methods under time pressure.

Designing for Real-World Workflows

There was consensus that students would benefit from clearer exposure to how CLO3D is used within industry. This includes not only large fashion brands but also start-ups, suppliers, tech platforms, and sustainability-focused businesses. Some participants discussed case studies or alumni examples that helped ground CLO3D in real practice, but agreed these needed to be more systematically embedded into teaching.

Participants proposed mapping out different design and production workflows, manual-led, hybrid, and digital-first, and helping students locate themselves within these systems. This

kind of workflow literacy would support more intentional use of CLO3D and help students articulate how their skills translate into emerging roles.

Beyond Software Training: Career Framing

Rather than treating CLO3D as a discrete skillset, there was strong advocacy for positioning it as part of a professional identity. When students understand CLO3D as a method for communication, iteration, and problem-solving, not just for rendering, they are better equipped to speak about it in interviews, showcase it in portfolios, and use it to differentiate themselves in a competitive market.

At the same time, participants acknowledged that industry adoption of CLO3D remains uneven, particularly in businesses that still outsource sampling or rely on legacy systems. Educators must therefore balance aspirational framing with realistic preparation, ensuring students are digitally fluent without assuming every job will require CLO3D expertise on day one.

Building Agency Through Mapping

One promising strategy discussed was having students map their own workflows, identifying where they use digital and manual tools, where they feel confident or constrained, and how they might evolve their practice to fit future aspirations. This reflective exercise can help students see CLO3D not just as a requirement, but as a tool that supports their individual design language, working methods, and professional values.

5. Reflections and Recommendations

The roundtable revealed that CLO3D is not simply a software to be taught; it is a lens through which deeper questions about pedagogy, equity, infrastructure, and institutional values come into focus. While there is strong enthusiasm for its creative and professional potential, realising that potential requires more than technical delivery. It demands systemic alignment, cultural reframing, and thoughtful integration into design education as a whole.

Key Reflections

- **CLO3D is only as valuable as the context in which it's embedded.** When linked to meaningful design outcomes and reinforced across studio modules, it enhances student creativity, confidence, and criticality. When siloed, it is often underused or misapplied.
- **Students mirror staff attitudes.** When CLO3D is embraced as a valid tool for design development and critique, students engage more openly. When it is marginalised or unfamiliar to academic staff, students deprioritise it.
  Infrastructure and access shape student behaviour. Device compatibility, plotting logistics, and room availability are not secondary considerations—they are fundamental to whether digital tools can be used creatively and equitably.

- **The digital-perfectionism trap is real.** CLO3D's polished outputs can lead to risk aversion and shallow surface work unless educators actively foreground process, failure, and iteration.
- **Workflow literacy is as important as technical skill.** Students need to understand how CLO3D fits into broader industry pathways, production systems, and evolving creative roles. Without this framing, the tool risks becoming a short-term skill rather than a long-term asset.

Recommendations

1. **Reframe CLO3D as a design tool, not just a technical skill.** Embed it into design thinking, visual communication, and reflective practice, not just digital modules.
2. **Foster academic-technical collaboration.** Encourage co-teaching, shared briefings, and team training to align language, expectations, and feedback across roles.
3. **Design hybrid delivery models.** Use a combination of drip-feed and intensive formats, tailored to project structure and learning outcomes, with scaffolding before and after.
4. **Make digital process visible.** Develop assessment formats that recognise experimentation, iteration, and design decision-making in digital environments, not just final renders.
   Normalise failure and play. Introduce CLO3D through low-stakes, exploratory exercises that promote confidence and creative risk-taking.
5. **Support student-led workflow mapping.** Help students reflect on how and where they use digital tools, what roles they align with, and how they might shape their own working identities.
6. **Invest in equitable infrastructure.** Review device loan schemes, studio access, plotting systems, and staff time to ensure all students can engage meaningfully, regardless of background or location.
7. **Integrate CLO3D into futures thinking.** Connect students with industry case studies, career pathways, and speculative design scenarios that show the diverse applications of CLO3D across fashion's evolving landscape.

Conclusion

This roundtable underscored that CLO3D is not an add-on; it is a pedagogical opportunity. When taught with care, collaboration, and context, it can reshape how students understand silhouette, systems, and self-expression. But it cannot do this in isolation. Institutions must create the conditions, cultural, logistical, and curricular, for digital design to thrive as part of a richer, more critical vision of fashion education.