

Innovating Design Education in Hybrid Contexts: Social Channels as Communication Drivers

Vittorio Linfante

Politecnico di Milano

vittorio.linfante@polimi.it

ORCID 0000-0003-3271-9311

Andrea Manciaracina

Politecnico di Milano

andrea.manciaracina@polimi.it

ORCID 0000-0002-0831-2848

Abstract

The School of Design of the Politecnico di Milano has recently experienced, like other design schools, a sudden acceleration in the use of technology. All degree courses, with disciplinary differences, have started teaching experiments to verify the effectiveness of modern teaching approaches by exploiting the capabilities of technological systems, platforms and channels. The article presents some results of ongoing experimentation within fashion design courses on using a social platform, Instagram, as a channel to support teaching activities. Instagram, used as a highly visual medium, stimulated student learning and facilitated teaching through dialogue, engagement, and interaction. Finally, the article reflects on hybrid learning contexts as a possible future context for expanding experimentation in design education. Physical space, digital space, and time become components of a fluid creation of knowledge.

Keywords

Design education
Fashion design
Educational technologies
Social media
Hybrid learning

Context

Communicating and connecting with peers and teachers through technologies is crucial to supporting the educational process, creating knowledge, and acquiring skills. Users use technology to collaborate; thus, they are more prone to participate and feel more comfortable in a technology-driven environment (Smyth, 2011). Conole et al. (2008) investigated how the availability of communication technologies influences university students' learning patterns. They found evidence to support and validate the hypothesis that current students are immersed in a rich, technology-enhanced learning environment and select appropriate technologies for their learning needs. "When used appropriately, communication technologies enable new ways of teaching and learning rather than simply allow teachers and students to do what they have done before in a better way" (Tinio, 2003).

The COVID-19 epidemic's isolation has compelled all colleges to equip themselves with the instruments necessary to continue educating rapidly. They have been forced to undertake considerable modifications as a result of the broad adoption of digital technology (EUA, 2020; OECD, 2020). Communication technologies now play a more essential role in our lives and education than ever before. As a result, universities must improve their understanding of and engagement with technology, including discussing the creation of digital learning spaces and hybrid learning processes (European Commission, 2020).

In this context, the School of Design of the Politecnico di Milano has activated several reflections and initiatives on the future of teaching between the physical and digital dimensions (Manciaracina, 2020). In recent months, among the design studios at the School of Design, several fashion design courses have experimented with new technological tools to try new teaching activities and pedagogical approaches.

Design Education: Between Tradition and Innovation

Design education began to be codified as a process and method in the early 20th century. It has taken various forms from the vision of William Morris, who emphasised mastery of the craft, to the Bauhaus (Argan, 1951) and the Vkhutemas (Bokov, 2020), which, regardless of their beliefs, attempted to fuse art and technique, to the Ulm School (Lindinger, 1990; Spitz, 2002; Spitz, 2012). Today, Maldonado's vision of a design discipline in fieri is becoming increasingly accurate. Indeed, Maldonado states: "In each of these periods, the producer-consumer relationship is different because in each of them the product works differently. As a result, design cannot always have the same function or meaning" (Maldonado, 1958), and increasingly the designer becomes the one who is called to coordinate the most varied needs in close collaboration with many specialists. Traditional design education needs to be "updated" by introducing and experimenting with new teaching methodologies that can provide students with an open-ended approach to even the most complex problems. Moreover, as Meyer and Norman (2020) state, the time has come for the design education community to emulate the revolutionary spirit

of the early Bauhaus by adapting design pedagogy to the diverse approaches and objectives of 21st century design.

The arising digital flows introduce new modes of engagement and sharing. They transform students and teachers into both consumers and creators of content (Toffler, 1970), thereby promoting a discipline, design, that is “blurred at the edges” (Rodgers & Bremner, 2019) and stimulating reflection on the possibilities (and criticalities) offered by the growing complexity of the subject.

Conventional design education should be “upgraded” by introducing and experimenting with new teaching techniques that instil in students an open-minded attitude to even the most complicated challenges. Additionally, design schools are tasked with cultivating a new generation of designers capable of rapidly collecting, processing, and transferring information as speed is a defining characteristic of contemporary economic and social activity.

In this setting of societal change and the inescapable omnipresence of social media and digital in general, the study project was conceived to reflect the untapped potential of several instruments currently in common usage.

Educational Technologies

There is no question that communication technologies perform a critical role in our daily lives and education. Learners, using technology, anticipate technology-enabled experiences. We need to narrow our focus, examining how various technologies and resources are achieving significant progress in essential areas in which pedagogical obstacles have been identified thus far. We should attempt to comprehend how technology and technical instruments can directly impact learners’ growth. To define what constitutes a technological instrument for learning, one must first define educational technology. It is the study and ethical practice of promoting learning and performance enhancement by developing, implementing, and managing appropriate technological processes and resources (Januszewski & Molenda, 2008). Thus, educational technology aspires to aid rather than generate or influence learning; that is, it can contribute to creating a setting conducive to learning (Januszewski & Molenda, 2008). “Educational technology refers to the use of tools, technologies, processes, procedures, resources, and strategies to improve learning experiences in a variety of settings” (Huang et al., 2019).

Social Channels and New Digital Forms in Fashion Communication and Education

Social media has surpassed all other communication channels in the digital domain (Rees-Roberts, 2020) due to its capacity to expand storytelling possibilities by allowing for better integration of languages and interactive transmedia forms. Digital enables fashion to ultimately realise its social nature (Simmel, 1905/2005) and trigger new interaction modes between businesses, designers, and consumers. Fashion has begun a process of communicative democratisation by sharing through social media: behind-the-scenes clips, sketches,

fittings, etc. , more or less serendipitous episodes of everyday life (Amed, 2013).

Therefore, what has been labelled the “mediatisation of fashion,” a new concept of “doing fashion through media” (Rocamora, 2016), is coming into greater focus. Communication and fashion design are increasingly being developed with direct participation, if not real co-design, as participatory actions are expanded and amplified digitally. Ideas and thoughts are being increasingly shared through the net, which could become an essential part of business and creative processes (Linfante, 2021).

Physical and digital worlds are progressively forming inter-connections that can be effective when they employ unrestricted creativity, defining even hybrid projects that are highly physical but enhanced by digital. In this media-saturated environment, Instagram positions itself as a communication route with the entire world and as a tool for design, research, and collaboration within businesses. Indeed, we are experiencing the digitalisation of creativity, or more precisely, a form of creativity facilitated by digital technology (Gentile, 2012; Byrge, 2020).

Why Instagram?

With this paper, we try to answer two specific research questions. The first concerns the ability of social media to complement educational technologies in carrying out design education. The second aims to investigate how Instagram (as a technological tool with a high visual coefficient) manages to actively and hybridly engage students carrying out activities related to the discipline of fashion design.

The research considers the digital, visual, and user-centred context of sharing through Instagram. Social media could potentially become a tool to support creativity and different learning processes. On the other hand, educational purposes could be supported by the various functions of Instagram that could be effectively included in the educational path. Finally, we also considered that Instagram is a platform familiar to students (Brisco et al., 2016) who already use it spontaneously, either in their interactions or as an online visual channel for research or information.

The choice of Instagram as a tool for experimentation was also guided by the analysis of certain theoretical approaches, arising in different fields and contexts but which can interpret the progress of knowledge construction through the concept of mediation and collaborative/social practice: Nonaka and Takeuchi’s “Knowledge Creation” (1995), Bereiter and Scardamalia’s “Knowledge Creation Theory” (2014), and finally Engeström’s “Expansive Learning” (2001).

Among the elements that stimulated experimentation was a concept of technology-supported learning, interpreting online communication, participation and knowledge sharing as the evolution of Piaget’s (1969) and Vygotsky’s (1978) thinking in the digital domain. According to Laurillard (2015), communication produces the need to control and confirm thoughts, a process characteristic of adult thinking; digital supported learning could awake various internal developmental processes that can only function when the learner interacts

with people in his environment and cooperates with his peers. Once these processes are internalised, they become part of independent acquisition in learner development.

Instagram, then, was conceived as a teaching channel, considering it a useful tool that could expand how teachers and students interact and expand the content of lessons (both synchronous and asynchronous) in different forms. Ultimately, through Instagram, the sharing of work and design processes could complement the learning experience (Douglas et al., 2019) and help increase student engagement (Cornaro, 2019), considering the social and visual nature inherent in the tool.

The Methodology

As a result, an examination of Instagram's many features was conducted, using the Bloom "Taxonomy" (Bloom et al., 1956; Anderson & Krathwohl, 2001), and more specifically, the "Digital Bloom Taxonomy" (McNulty, 2020), to determine their potential applicability in an educational setting Fig. 1. Instagram, if handled properly, has the potential to stimulate a variety of activities, thereby covering all levels of the "Digital Bloom Taxonomy". This possibility becomes the experiment's focal point.

DIGITAL BLOOM TAXONOMY → [INSTAGRAM TOOLS]	DOING	CONNECTING	APPLYING	CONCEPTUALIZING	EVALUATING	CREATING	SHARING
POST							
FEED							
STORIES							
STORIES HIGHLIGHTED							
POOL							
QUESTION							
QUIZ							
GUIDE							
DIRECT MESSAGES							
DIRECTS							
IG TV							
REEL							
REPOST							
TAG							
ARCHIVE							
#HASHTAG							

Fig. 1
Analysis of the different functionalities of Instagram through the lens of the "Digital Bloom Taxonomy".

The choice to refer to the revised Bloom's "Taxonomy" characteristics stems from the consideration that it is becoming increasingly necessary to create online learning activities and define actions based on how students interact and learn, which are increasingly passing through the digital realm. The "Digital Bloom Taxonomy" helps us navigate through the myriad of digital tools. It allows us to make choices based on the type of learning experiences in which we want students to engage (Lightle, 2011), considering that knowledge results from the activity, context and culture in which it is developed and used (Meyer, 2010).

Instagram is potentially structured to be a practical resource in education, adaptable to the different levels of Bloom's "Digital Taxonomy", as it:

- defines a bulletin board of information: visual and textual;
- allows different levels of communication: long duration and short duration;
- allows different types of interaction: likes, reactions, comments, direct messaging, tags, polls, quizzes, questions, live video;
- allows images to be stored and shared;
- allows different levels of in-depth analysis;
- contains within the platform an exhaustive archive of images;
- is a potential creative stimulus.

Experimentation and Findings

Based on these premises, experimentation was conducted in two stages across several Fashion Design courses during the Academic year 2020/2021: Metadesign Studio (46 students), Textile and Print Design for Fashion (31 students), Fashion Retail Experience (77 students) and Communication Design (85 students).

In this article, to be concise, we will focus mainly on the experimentation carried out within the Metadesign Studio as an exemplification of the experiments conducted.

The course is structured according to four main moments, defined following a sequence of stages of increasing complexity, which consider the different levels of Bloom's "Taxonomy", namely:

- analysis of the project context (Remembering and Understanding);
- creation of a brief (Applying and Analysing);
- concept of the collection concept (Evaluating and Creating);
- design and development of the collection (Evaluating and Creating).

The use of Instagram allows the implementation of the Sharing level in all of the phases, and above all, helps implement different forms of formative assessment (Sancassani et al., 2019), continuous scaffolding (Wood et al., 1977), peer evaluation (Weaver & Cotrell, 1986) and creative stimulus.

The experimentation was realised by implementing two types of Instagram channels: a course profile (@corsometaprogetto), managed by the teaching staff, and several profiles operated by the students' working groups (@meta[brandname]2020).

The Course Profile: @Corsometaprogetto

The course profile, initially conceived as a "bulletin board" summarising the course contents, almost immediately lost this "official" and "static" form and was set up according to a more dynamic structure, overlapping different communicative languages and defining a system of interaction. In this way, we tried to keep the students' attention high, providing them with various stimuli to support both "action" and "reflection".

We structured a communicative palimpsest, mixing long-term tools and actions (using the Posts on Instagram) and short-term tools and actions (Story, Guide, Pool and Quiz on Instagram). These tools and actions could integrate topics presented during the lessons and in-depth information shared during the project reviews and formative verification actions as a further scaffolding method.

The channel was also used as an instrument of communication with the students through feedback and direct messaging.

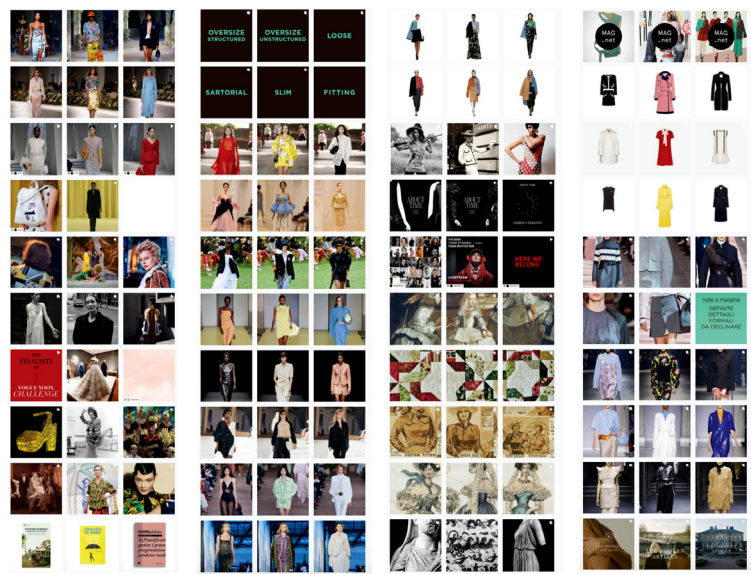


Fig. 2
Some pictures of the posts uploaded to the course's Instagram profile.

Group Profiles. @meta[brand name]2020

Each group managed an Instagram profile, created by inserting as profiles to follow: the course profile, the major fashion magazines, the channel of the assigned brand, the private account of the designer (if any) and those of the second lines or other projects of the brand.

The first aspect to underline was a faster and more immediate understanding of the visual identity and style of the brand. Another aspect was a natural borrowing of approaches and methods of analysis and narration, used within the course outline, though this was not required.

In some cases, another interesting fact to underline is that halfway through the course, some groups redesigned the profile entirely, making it more coherent with the brand and the project they were working on.

Results

At the end of the course, a survey was conducted among the students to verify the effectiveness and usefulness of the different tools used, both in terms of the content and the mode of presentation and interaction.

Regarding the type of digital user: about 42% of the respondents have only one Instagram profile; 33% have two and 25% have more than two; 40% of the students claim to access more than 15 times a day; 21% claim to access between 11 and 15 times a day; 39% claim to access less than ten times a day. In general, the number of profiles followed is high: 60% of respondents follow more than 500 profiles, and only 3% follow less than 50 profiles.

Considering Instagram as a tool to support creativity, the survey shows a relatively homogeneous situation: 65% of students use Instagram to interact with their circle of friends; 77% use it as a channel of information; 80% for fun; 67% as a channel of creative stimulus.

Regarding the use of an Instagram channel for the course, as a social interface between teachers and class, the results show general satisfaction: 92% consider it a useful support to further explore the content presented during the lessons; 82% consider it helpful to understand the design process; 87% consider it a helpful channel to receive design and creative stimuli.

The experiment of having a student-managed channel to interact with faculty and among students was considered helpful for: sharing content within the working group (70%), sharing content with teachers (93%), sharing content with the class (85%), receiving feedback from teachers (86%), receiving input from other students (63%), organising project content (71%), as support for the different project phases (74%), and as a creative stimulus (75%). In general, 92% of students involved considered Instagram worthwhile for activating a group or classwork.

The Student's Point of View

The students found the course channel useful because it was considered an “official status”, a spokesperson for teachers. They thought receiving direct visual stimuli (through Posts and Tags) attractive and valuable. The comments on the work in progress and the direct messages were handy tools that were much appreciated to “adjust the aim” of the work in progress. From the point of view of the amount of work, managing a group channel involved additional work but was still considered manageable and valuable. The visual synthesis required by the channel forced us to rework the information in a clear and immediate form.

It was also highlighted that Instagram is already one of the channels of research and creative stimulation and that digital *serendipity* (Race, 2016) is an element that has already been experienced and appreciated. In some cases, the use of Instagram was experienced as an additional workload. Some technical problems also emerged due to the nature of Instagram, which is not created to allow simultaneous access to too many users at the same time. Another element of criticality and stimulus at the same time, highlighted during the focus group, is due to the media exposure of the works: exposure that on the one hand generates anxiety, “because exposing one's projects in this way can make one a little anxious

because one is subjected to the judgment of an entire class”, on the other hand, it is seen as a stimulus to take care of the contents to make them clear and easy to use. Another controversial element that emerged during the focus group is the square format and the constraint of the number of posts bound by social media. For some, these elements are now familiar and easily manageable, while for other students, this limitation of format and depth of information was perceived as an excessive constraint.

The Teacher's Point of View

Positive elements that emerged from the teaching point of view are:

- greater control of the progress of the work of both individuals and groups;
- the possibility of creating connections between the contents of the course profile and the class or group profiles;
- the possibility of defining an open palimpsest;
- the possibility of creating informal moments of evaluation;
- the possibility of sharing comments synchronously and asynchronously;
- the use of the course's Instagram channel as a platform to present or explore topics;
- immediate and concise communication via Instagram;
- the possibility of stimulating creativity by activating forms of “teacher-guided” *serendipity*;
- the possibility of creating a palimpsest of ad hoc content.

Some critical issues that emerged from the teaching point of view are related to the teacher's need for active participation in the review process. The interaction with the class can stimulate the creation of more practical and immediate ad hoc content. Furthermore, it becomes essential for teachers to plan posts well and implement or modify the schedule as needed. This activity that requires flexibility is undoubtedly an extra effort. On the other hand, the digital serendipity of the Instagram logarithm, plus the teacher's experience and reading skills, can help optimise time and resources, considering furthermore that much of the content is already on the social network, so the main action on the teacher's part becomes finding the right content, not necessarily creating new content.

Conclusion

According to Jacobsen et al. (2013), “Studies demonstrate technology can increase connections, communications and interactions among learners for collaborating and creating”. Numerous influential elements promote technological tools as a necessary component of educational reform. They are a critical factor for educational leaders to consider when considering the expanding relevance and ramifications of technology and the innovations of technology-based educational institutions (OECD, 2010a; 2010b).

Digital technologies establish a strong position primarily due to two attributes:

- they implement a third space that establishes an interaction between presence and distance, thereby strengthening both;
- they establish a learning space-time in which diverse participants can reflect on practices and activate models to experiment with new learning theories. The introduction of technologies in teaching activities supported the creation of forms of collaborative learning, more elaborative, generative, and shared.

The focus shifts to the student who becomes an active subject of learning and the implementation of teaching methodologies capable of exploiting the opportunities of the digital world. Digital is an enabler of activities that engage the student in problem-solving, implementing appropriate formative assessment strategies, and fostering creative potential.

The role of the teacher is also changing. In this context, the teacher becomes a facilitator, who can guide the construction of knowledge through the development of effective learning activities, using all the tools, both traditional and innovative, at his disposal. Teaching shifts toward the concept of learning centeredness. Today, from didactic practices based on the binomial frontal transmission-summary evaluation, it becomes crucial to create an active learning experience. An experience capable of activating formative assessments and constant scaffolding as reinforcement. This experience can create connections between knowledge acquired over time and new concepts or skills to develop a more profound, rooted, and lasting knowledge of the topics.

Regardless of the learning environment, it is essential to remember that people learn best when actively involved. What is important to underline as a preliminary outcome of the experimentation carried out is that, regardless of the type of digital support used, it becomes necessary to structure a system of active dialogue between teachers and students (who become not just spectators but actors in the learning experience). The teacher is increasingly becoming a key figure in the effectiveness of social channels.

Furthermore, digital social platforms could activate several hybrid learning processes in both the physical and virtual domains. Hybrid learning environments were first envisioned as online realms that enable synchronous and asynchronous interaction between teachers and students while also providing access to digital learning resources at any time. This definition was recently revised to include a blending of distance and face-to-face interaction that incorporates both the concept of time and the concept of a virtual environment.

Vittorio Linfante

Art director and Professor of fashion design, branding and communication design at Politecnico di Milano, University of Bologna, NABA and Milano Fashion Institute. Curator — together with Paola Bertola — of the exhibition *Il nuovo vocabolario della moda italiana*, Triennale di Milano (November 2015–March 2016). Author of several essays and books on the relationship between fashion, art and design.

Andrea Manciaracina

Ph.D. with honours in Design (Politecnico di Milano). Research Fellow at the Department of Design (Politecnico di Milano), Adjunct Professor at the School of Design (Politecnico di Milano) and communication designer. His research focuses on learning spaces, technologies, innovative pedagogies, and design tools to support teachers and decision-makers.

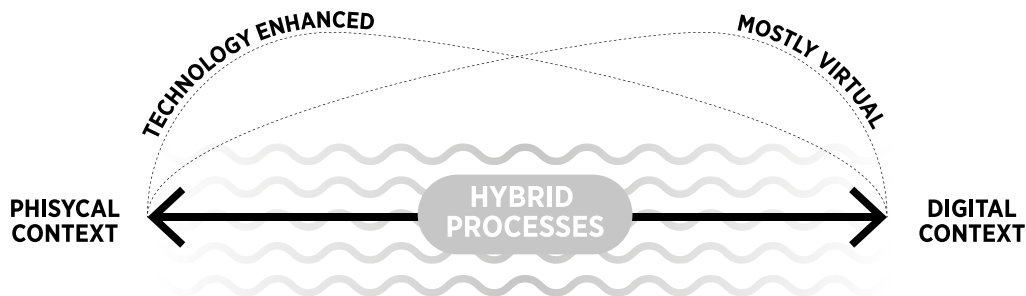


Fig. 3
Spectrum of the hybrid
learning process. Edited
from Graham et al. (2013).

Thanks to digital and social media, the learning environment can evolve into a hybrid environment, influenced in different degrees by technology, bouncing back and forth between the physical and digital realms. It is the setting for various activities to encourage learning. The dynamic cycle of transition between the two contexts, facilitated by technology, is at the heart of why current learning approaches enable us to constantly reformulate learning, and why we need to continue experimenting with new technologies to encourage widespread reflection and the use of fresh, modern learning approaches.

In this context, not only Instagram but digital social platforms in general could be considered effective tools to connect physical and virtual environments, opening the path to further experiments connecting learning activities and digital tools.

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