Chapter 14

Visual Plagiarism: Seeing the Forest and the Trees

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Abstract Recent years have seen an increase in conversations in higher education around academic integrity. The subject of plagiarism in traditional written assessments has been much discussed and well researched. Considerably less is known about visual plagiarism. For the purposes of this chapter, we are defining “visuals” as mechanisms that convey meaning without articulation of, or dependence on language. Although some scholarly literature on visual plagiarism exists, there is a dearth of comprehensive literature on the topic and even less published are instructional or best-practice resources for instructors. Further complicating this topic are the differing ethical, legal, professional, and academic standards across fields. Here, we discuss practical ways to pre-emptively approach the topic of visual plagiarism through the education of faculty and students. We address prevention with suggestions for best practices in four distinct disciplines. Additionally, academic policy and administrative challenges are explored. Finally, we make recommendations for further research. This chapter will be of use both across Canada and globally, by providing a framework for defining and examining visual plagiarism in academic contexts and offering guidelines for pedagogical approaches to educate faculty, administration, and students on this important issue.

Keywords Visual plagiarism · Plagiarism · Presentation design · Illustration · Digital media · Architecture · Academic integrity · Canada

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Introduction

A Canada-wide study examining university definitions of plagiarism identified only six of twenty institutions that explicitly include visual material in their policies (Eaton, 2017). Even within the academic integrity community, visual plagiarism, although a topic of great interest to some, remains a black box to others. Historically, text-based plagiarism has been the focus for academic integrity researchers, though that is changing with growing concern over contract cheating. Our goals for this chapter are threefold: (1) to raise awareness of visual plagiarism as a concern, (2) to recommend best practices for educating students on the use and creation of visuals for assessments, and (3) to encourage policy change at the institutional level. To achieve these goals, we brought together faculty from a variety of disciplines, to contribute to this paper, and to discuss visual plagiarism from their perspectives. The results highlight common issues as well as draw attention to the unique concerns within the respective disciplines.

For the purposes of this article, we are defining “visuals” as mechanisms that convey meaning without articulation of, or at least dependence on, language. Examples include, but are not limited to photography, architectural plans, fashion designs, computer code, and dance.

We will not be addressing issues of fraudulent manipulation of visuals for the purpose of misrepresenting scientific research results, although that too is a pressing concern.

Additionally, it is important to distinguish between copyright infringement and visual plagiarism. Copyright infringement is a violation of contract law, whereas visual plagiarism is a violation of institutional policy. As discussed below, in some disciplines, maintaining this distinction when educating students can be challenging given that students are learning the rules of academic engagement, while simultaneously preparing for entry into professional fields where expectations can be quite different.

Literature Review

Research on visual plagiarism is scant, but there have been a few attempts to lay the foundation for this important work. A UK-based study by Garrett and Robinson (2012) attempted to assess the frequency and scope of visual plagiarism in the arts through a survey where faculty and support staff responded to 27 questions to establish definitions of visual plagiarism, frequency of occurrence, detection methods, and methods of responding to incidents. Respondents' definitions were generally congruent with the standard definition of plagiarism, but several went further and included reference to unacknowledged appropriation, while some quantified boundaries by suggesting that, to be original, a work must be 80% the creator's own, or, the creator needs to have taken the idea through six mutations/variations in order to

obtain originality. A relatively small number of participants reported encountering visual plagiarism but, interestingly, 42% reported encountering a lack of referencing on visuals, suggesting that participants' considerations of visual plagiarism, unlike written plagiarism, are not synonymous with considerations of citation. The respondents' strategies for prevention included the use of learning support services, online tutorials, as well as presentations from career advisors who can speak to professional expectations about creative work. At the heart of Garrett and Robinson's study is the exploration of similarity detection software for images, akin to the widely accepted and prolific use of text similarity detection software for written work. Although 65% of respondents indicated using technology to identify visual plagiarism (e.g., image search and/or reverse image search), when asked if they would support a visual version of similarity detection software they were, for the most part, doubtful about the benefit and or the effectiveness of such a tool.

Simon (2016), using computer code as the medium for exploring visual plagiarism, argued that non-text-based courses needed to consider different (creative) approaches to citation and detection and to recognize that the academic standards need to be developed with industry standards in mind. Acknowledging the collaborative practice that is fundamental in the tech industry, where coders are encouraged to share code and build on the work of others, Simon identified inappropriate collaboration as the primary source of plagiarism.

Alongside researchers who have explored how visual plagiarism is viewed and how it occurs, others have been demonstrating grassroots initiatives within and across institutions to fill in gaps in existing academic integrity policies and address some of the unique challenges in specific fields. One such initiative was the impetus to this chapter when Ryerson University's Academic Integrity Office (a unit within the Centre for Excellence in Teaching and Learning) partnered with a number of faculty from creative disciplines at Ryerson University to develop a guide called "Best Practices: Visual Plagiarism" (2019). In creating this guide, a review of practices elsewhere was undertaken.

Blythman, Orr and Mullin (2007) worked with two UK institutions to establish discipline specific guidelines that included a statement on the tradition of creation in the field, as well as instructional activities to explore these ideas with students. Another project out of the City University of Hong Kong's School of Creative Media, Hare and Choi (2019) created videos to teach visual integrity. Using a flipped classroom model, students watched short videos from home and explored discipline specific complexities via case studies in the classroom. Pre- and post-testing showed a significant improvement in student understanding of requirements for integrity when working with visuals.

To continue this work and build on this foundational research, Dianne Nubla (MPC, Professional Communications), Glen Farrelly (PhD, Professional Communications), Colleen Schindler-Lynch (Assistant Professor, School of Fashion, MFA) and Vincent Hui (Associate Chair, Architectural Science, MArch, MBA) address the challenges and best practices in their disciplines below.

Visual Plagiarism Across Disciplines

Visual Plagiarism in Standard Text-Based Presentation Courses (Dianne Nubla)

For both Canadian and international students, the realm of visual plagiarism in presentation slides is often a relatively foreign landscape, as guidelines on citing their visual sources in an academic setting can be easily ignored. Faculty are often pleased to see students playing with images, graphics, and illustrations in their presentations; however, they sometimes overlook the lack of citations for these creative additions (Huffman, 2010). To add to this uncertainty, students may see lecture/lab slides, as well as course handouts, where instructors omit visual citations when using internet-based images/graphics/illustrations, further encouraging the assumption that non-citation practice is acceptable.

When students are asked to create presentation slides, oftentimes textual research and its citations are prioritized. Although many Canadian post-secondary institutions use originality detection software that has been positively viewed as a helpful aid by instructors and teaching assistants to detect similarity with the software's text matching tool (Zaza & McKenzie, 2018), currently there is no equivalent formal visual plagiarism detection system. To fill this gap, manual substitutions have been employed, such as reverse image search, which are conducted by different means and methods. As a result, instructors do not have institutionally supported tools to detect visual plagiarism within visually rich submissions, such as presentation slides.

In an effort to find a solution, educators and students are increasingly using Creative Commons (CC) images sourced from content-delivery (e.g., Wikipedia) to image-based commercial (e.g., Shutterstock, Unsplash, and Flickr) websites. Creative Commons is a designated non-profit organization who seeks to "work closely with major institutions and governments to create, adopt and implement open licensing and ensure the correct use of CC licenses and CC-licensed content" (Creative Commons, 2020, para. 2). Educators and students should note that each website may contain a different framework for crediting their Creative Commons (and non-Creative Commons) image(s).

Navigating Through Visual Plagiarism Challenges in Presentation Design

Table 14.1 shows common visual plagiarism scenarios which can create confusion. Also provided are best practices for faculty and students when creating presentations in an educational environment.

The visual citation overview provided in Table 14.1 is based in educational, learning contexts, where the individual is not selling/renting their materials. If the produced slides are to be released commercially then the creator is advised to carefully consult the Canadian Copyright Act (Government of Canada, 2020) to ensure that their visuals are not in breach of the statute.

Table 14.1 Best practices in preventing visual plagiarism in presentation design

Challenges in presentation design	Best practices
Pre-loaded software, clipart, graphical elements e.g., use of graphics, such as tables, charts, diagrams, and infographics, within presentations	<p>Preparation Educate students that “Shapes”, “Table”, “Chart”, “Diagram”, and “Word Art” creations do not need to be cited, as these are shells provided by the software to help creators input their data to create their own visual. Mention that the name of customizable graphics may differ, based on the software used. Though the graphics may not require citations, the raw materials in them will need a citation to properly credit the researcher(s) Emphasize that non-original content, even though personally modified, needs citations.</p> <p>During Design Development Students should be asked to track their image sources when working through the design process. In addition, it is important that students are clear on the citation expectations around their use of images. In a similar manner, industry professionals may want to read through the software’s copyright policies found on their website on the legal uses of their content. Certain presentation software tools provide users with access to pre-loaded clipart images that can be embedded into the student’s presentation which do not require citations.</p> <p>After Deadline Encourage students to take a visual inventory of their presentation to assess their original content and to check if external content (including inspiration pieces) were properly cited.</p>
Images from websites added to presentations for aesthetic and/or functional purposes	<p>Preparation Motivate students to build a habit of citing their visuals during the collection process. Provide different layout techniques on how to include image citations in a way that works with the slides’ design layout.</p> <p>During Design Development Teach that when retrieving an image online, it is best to always provide a citation. Remind students that screenshots can also be categorized as images extracted from a website; therefore, these visuals will require a citation.</p> <p>After Deadline Review the presentation slides and make note of the visuals taken externally. It is easy to forget to cite when in a hurry; therefore, this can be used as a reflective exercise (for both students and faculty) to see how their slides can be improved in the future.</p>

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Table 14.1 (continued)

Challenges in presentation design	Best practices
Personal creations	<p>Preparation Remind students that images, illustrations, and graphics created by them do not need citations, as they own these creative materials. Encourage the use of shape and line tools in the presentation software as they empower the creator to customize their designs.</p> <p>During Design Development Schedule regular check-ins during the slide creation process to train students to assess if their personal creations were heavily inspired by an external source. Create a checklist (can be used in conjunction or substitution of the check-ins) to provide clear guidance on knowing what type of visuals to cite within the slides.</p> <p>After Deadline Advise that students place copyright or Creative Commons indicators on their custom visuals/slides in case they would like to share their work.</p>

Discussion

Preventing visual plagiarism in presentation slides requires a mixture of institutional support, leadership from instructors, and student self-efficacy.

Macro Level Support: Creating a Unified Visual Plagiarism Standard. Guidance and deliverables from the post-secondary teaching support services help create a standardized practice for the institution to follow. For example, Ryerson University's Learning & Teaching Office, in partnership with the Academic Integrity Office and faculty members in the Faculty of Communication & Design (FCAD), created a "Best Practices: Preventing Visual Plagiarism" guidebook for its community. This guide encouraged further visual plagiarism discussions amongst its faculty, students, and teaching support departments to establish clearer academic integrity protocols for the university.

Micro Level Support: Instructors Leading by Example. With the mass movement of courses to an online platform due to COVID-19-related adjustments, instructors will be creating more educational resources and have an increasingly critical role. By using proper visual citation techniques in their own lecture and lab presentations, in addition to course handouts, in a consistent manner, they are demonstrating the usage of best practices.

Personal Empowerment: Student Self-Efficacy. A student's belief in their academic success will have a direct impact on the quality of their work. Students who experience challenges with time management and a lack of confidence in their academic studies are more inclined to omit details, such as visual citations.

Focusing on cultivating a student's self-efficacy by providing transparent guidelines and increasing support services (such as workshops and one-on-one assistance outside of the classroom) will have a positive impact on increasing their motivation to follow plagiarism prevention best practices.

For a formal, long-term visual plagiarism prevention strategy, educational institutions can consider the 4 M Framework. This approach was developed by the Scholarship of Teaching and Learning (SoTL) group to foster a symbiotic relationship “through four interrelated organizational lenses: (a) micro (individual); (b) meso (departmental); (c) macro (institutional); and (d) mega (community)” (Eaton, 2020, p. 1). Though this process will take years to develop, its benefits provide an environment that motivates buy-in to increase the likelihood of producing long-term sustainability in visual plagiarism education and detection.

Visual Plagiarism in Digital Media (Glen Farrelly)

Visual plagiarism is of particular importance in courses involving teaching about and creating digital media as copying digital work is so technically easy and as common digital media practice often entails no crediting of third-party content. Therefore, instructors are tasked with re-educating students on acceptable use of third-party visuals and helping prevent visual plagiarism in students' digital media projects. For educators in programs with a professional or applied focus, this issue intersects with copyright and trademark protections and artist permission and compensation, which are concerns for future practitioners in this area to help them avoid potentially litigious behaviour.

Digital media courses can include social media, web design & development, video game design, mobile application design, and emerging media (e.g., wearable technology, Internet of Things). Visual plagiarism in these courses can take the form of inappropriate use and attribution of digital versions of physical media, such as photographs, illustrations, comics, paintings, maps, videos, logos, and fonts as well as uniquely online visuals, such as social media posts, memes, emojis, collages, webpage and mobile app layouts and templates, banners and advertising graphics, machinima, mashups, mods, and skins. Students in digital media courses may use visual elements of digital media in conventional textual documents (e.g., essays, presentation slide decks, reports) as well as in the creation of digital media final products (e.g., websites, apps, games, social media accounts, e-books). Visual plagiarism in such work involves the issues covered in this chapter around inspiration and departure as well as attribution. The following table presents dimensions of visual plagiarism in digital media courses (Table 14.2).

Table 14.2 Best practices in preventing visual plagiarism in digital media

Challenges in digital media	Best practices
<p>Instilling a concern in students that crediting creators is important.</p> <p>Students need to become aware first about the plagiarism aspects of common online behaviour and then understand the personal and social impact of using others' work without permission, credit, or compensation</p>	<p>Instructors can appeal to students as current and future artists and content creators. A class discussion can cover famous cases, such as the "Pepe the Frog" comic and its adoption as a meme by hate groups much to the concern of creator Matt Furie (Anderson & Revers, 2018). Ask students to comment on how they would feel if their creations were reused in such contexts.</p>
<p>Educating on differences between open-access, royalty-free, public domain, and copyrighted media</p> <p>e.g., Using a copyrighted photograph as an e-book cover image without creator attribution or embedding an open-access video in a blog post without creator attribution</p>	<p>Instructors should educate students on what permissions go along with different types of licences and the need to always cite/credit sources. Students can also be introduced to fair dealing provisions of copyrighted media.</p>
<p>How to credit in academic and professional contexts.</p> <p>For students seeking to properly cite image sources in their digital media work, there are a lack of standards and ability to credit. In digital media practice, there are few established norms or features for crediting (Simon, 2016)</p> <p>e.g., Inserting images found online into a website and not providing creator attribution or gaining permission; reposting a popular meme on social media with no creator attribution</p>	<p>The lack of conventions for crediting third-party digital media creators means the instructor will need to provide their own guidance. Note in many cases no one method of attribution may be sufficient and not all methods provide sufficient transparency. Some methods by medium include:</p> <ul style="list-style-type: none"> *Digital image (generally) - watermark or superimposed credit line, file metadata in the Authors or Comments field, creator name used in file name * Digital image posted to social media - watermark or superimposed credit line, tagging the creator, credit in post or comment *Digital image used on website or app - watermark or superimposed credit line, file metadata in the Authors or Comments field, creator name used in file name, caption below photo or upon mouse hover (via CSS) *Video - superimposed credit line, opening or closing credits (written and/or spoken), credit in caption or comments, file metadata in the Authors or Comments field, creator name used in file name *Website, App, Blog, or Game Design - code comments, credit line in footer, credits page or list <p>A class discussion or exercise could have students search for examples in digital media where credit has been provided.</p>

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Table 14.2 (continued)

Challenges in digital media	Best practices
Use of third-party media as an element in a digital media design or using templates or themes. The creation of original digital media works may entail the student using third-party tools or content to build upon their own creation or entirely using other people’s content and mashing it up into something new e.g., Using Google Maps tool with one’s own customized icons to create an interactive map; taking images from another person’s social media posts, adding text and then posting it to one’s own social media account; paying a fee to use professionally designed layout template from a company such as Wix.com when building a website	The issue addressed in this paper regarding attribution and departure must be addressed here by instructors in assignment design. Instructors must establish and clearly state the parameters involving using third-party material or software. For example, stating the rules of a website design project on whether using templates or themes is permitted and how to credit (e.g., an HTML comment or a credit line in the footer).
Ascertaining proper re-use or sufficient departure for derivative works from established designs and iconography (assuming proper attribution, it can be difficult to know at what point third-party media are in common usage or when a layout is an established convention that no longer needs creator attribution) e.g., Using clipart arrow images in Microsoft software to create icons for a video game HUD; purchasing a font to use in a PDF brochure without attributing the font creator; copying an app layout from an industry leader when planning a new mobile app	Acceptable media reuse and departure are difficult areas to ascertain and will rely on the instructor’s subject matter expertise. Instructors should be upfront to students about permissible use of such media and the degree of originality and innovation students must achieve. In general, students should always attribute all sources of third-party work in their academic creations, but this may not be necessary for commercial work.

Discussion

Educating students on the institutional rules of academic integrity and legal use of third-party visual media is a challenge given the lack of regulations and rampant violations in popular use of digital media. The educator must impress upon students the need to counter prevailing media use norms and instead practice responsible use of others’ ideas and content. The culture of re-use and remix in digital media may help spread information and spur innovation, but it does not adequately give credit where credit is due. This issue is larger than educators and students, as many global digital powerhouses, such as Instagram and Twitter, thrive through the widespread reposting of third-party content with ease and rarely offer easy, elegant ways for users to provide credit.

Even for students who want to cite third-party media, this is not always simple, as there are often cases where tracking down essential credit information can be difficult to impossible, such as with finding who originated a meme. Viral, online content can be reposted rapidly by innumerable people, so tracking down the original creator

can be impossible even with the help of archived databases of memes, such as Know Your Meme (n.d.). Also, people passing on memes may modify the original creation or add to it, so determining who the creator was through successive iterations can be further herculean. At present, there appears to be no academic or professional standards for what to do when one cannot determine the creator of a viral image. For example, is it sufficient to cite where one last saw a meme even if it is certainly not the originator?

An aspect of visual plagiarism that is of particular relevance to digital media educators is helping students prepare for professional practice in digital media jobs. Students in post-secondary, digital media development programs are likely to work in communication or arts related professions. Thus, it behooves educators in this area to teach students best practices for reusing and crediting media to help them either protect their own work as a future professional artist or entrepreneur or to avoid litigation as a future employee. Educators should inform students that work that is permitted for educational provisions of fair dealing may prove to be copyright infringement if the same work is used in business endeavours. Similarly, students who are permitted to use third-party templates or open access images in school assignments may find that they are not permitted to use them when they are no longer a student or the project is no longer non-profit.

In terms of detecting possible plagiarized visuals, there are a few tools or aids available to educators. There is as of yet no equivalent to Turnitin. However, reverse image search engines, such as Google's, will let one upload a suspect image and Google will check if there are similar images posted elsewhere on the web. However, this tool is not yet perfected and their database of images to check against is not exhaustive. In some instances, it is possible to find a suspected plagiarized digital image by looking at the file's metadata or code. But at this point, the best safeguard for educators is prevention. Through the use of scaffolding in assignments, either by having students begin their work in class or handing in preliminary or iterative designs, it can reduce the likelihood of cheating and provides transparency in the design process.

There are many related issues that are beyond the scope of this chapter but are nonetheless crucial. These include: model consent, subjects' privacy and children's security, trademarks (including colour), trade dress, design patents, and artists' moral rights. For students posting their work publicly, educators can also address how students can protect their own work from unauthorized use, such as via watermarks and Creative Commons licenses.

When courses involve digital media, it falls on educators to not only ensure that students are not visually plagiarizing but also to prepare students for acceptable practice in their future careers.

Visual Plagiarism in Illustration: Apparent Contradictions in Visual Practise and Two Case Studies in Illustration (Colleen Schindler-Lynch)

Visually dominant creative disciplines such as illustration and fashion are areas where it is easier to identify visual plagiarism. Iterative sketching is fundamental to the creation of images and development of designs, but the process of creation to fabrication, for images or designs, is not without contradictions and obstacles and visual plagiarism can occur at any stage of the process. In this component, I present considerations and concerns for visual plagiarism in illustration and fashion design along with two case studies, discussing apparent contradictions in these disciplines that might confuse students. For example, “Historically, some artists/designers have used copying as an analytical approach to learning. Investigating how an image/artefact was created involves a close reading of which media and methods were used, in which order, and how each was applied. By doing so, you gain material and compositional sensibilities etc. resulting in a technical exercise but not an original work. This practice will recreate the look and feel of something, but it is considered copying” (Ryerson University, 2019). Intended and accepted as a valid form of learning, its purpose is to gain knowledge rather than impart new meaning, and these types of mimetic assignments are still common in visual arts courses.

Further complications in the making and use of imagery are concepts like parody, satire, and appropriation. The Cambridge University dictionary (n.d.) defines parody as “writing, music, art, speech, etc.... that intentionally copies the style of someone famous or copies a particular situation, making the features or qualities of the original more noticeable in a way that is humorous” and satire as, “a way of criticizing people or ideas in a humorous way, especially in order to make a political point, or a piece of writing that uses this style.” Additionally, the Museum of Modern Art (n.d.) (MoMA), defines appropriation as “...the intentional borrowing, copying and alteration of existing images and objects.” Each of these are accepted modes of creating work that results in unique intellectual property built upon or as a deliberate derivative of the intellectual property of others, assuming the creator has departed from the original *enough*. Navigating that ambiguous *enough* can be challenging for professional artists, let alone for students who are still developing their skills and their personal artistic voice. One need only refer to the work of artists like Robert Rauschenberg, Shepard Fairey, or Sherrie Levine and Michael Mandiberg to see examples of well-known uses of appropriation.

When delving into the use of visual material, sometimes it is necessary to preserve an original image to some extent, but this must be coupled with visual or conceptual departure to avoid merely copying—further contributions should be made to an image to create a new version or new message. These are considerations that need to be discussed with students—it is imperative to speak about image making history alongside project expectations and the nuances of a particular field. Garrett and Robinson’s (2012) research shows that some educators attempt to quantify *enough* by requiring a specific percentage of divergence from the original or a certain number

of categorical shifts (e.g., colour, perspective, medium). This is not surprising given that students appreciate identifiable guidelines.

In Ryerson University's (2019) "Best Practices: Preventing Visual Plagiarism", faculty are encouraged to choose categories appropriate to their field and instruct students who are working with an inspirational work to change it in several categorical ways. Below are examples of possible categories:

- Colour
- Lighting
- Process
- Intention
- Setting
- Content
- Materials
- Proportion
- Pattern
- Feeling
- Context
- Meaning
- References
- Selection
- Motif
- Cropping
- Method
- Scale
- Fabric
- Juxtaposition

The case studies below illustrate some lessons learned and best practices for prevention.

Case Study: Styles, Styles Everywhere

Just as each person's written signature is distinct, so too is each person's artistic mark. In reviewing a submission from a student, I always refer to the work the student has completed in class for comparison. In this way, I learn the student's artistic voice and abilities and can identify inconsistencies that may indicate visual plagiarism and justify further investigation.

In one project, students were asked to create a suite of twelve original watercolour illustrations based on a given theme and they were required to include all references used in painting the work. Upon reviewing one student's submission, I immediately recognised inconsistencies in the illustrations, and they were dissimilar to the drawings I had observed in class. In fact, I identified five separate styles throughout the twelve watercolours as well as differing media applications.

Although I was unfamiliar with most of the original paintings, a few felt familiar and so I began the process of detection with a basic Google keyword search, such as fashion, watercolour, woman, and kitchen. This relatively quickly led me to the original artist. I was able to confirm the student had copied the layout, style, composition, and figure and had made only minor modifications such as a change of colour or a simplification of pattern.

Case Study: Process Makes Perfect

In this case, the project required that students design a croquis, which is a hand-drawn sketch of a live model. The student submitted process work that included a series of photos of themselves in various poses, and the photos seemed at first glance to match the sketched poses. As in the previous case, I noted inconsistencies in the drawings submitted by the student compared with their performance in class.

Upon closer inspection, I noted subtle differences between the self-photos presented as process work and the final project the student submitted. For example, the finger position in the photo versus the final was inconsistent, and, perhaps most telling, several of the sketches were mirrored versions of the self-photos: e.g., right knee bent in the photo and left knee bent in the sketch.

To investigate, I began with keyword searches such as “fashion” and “croquis” and discovered the exact figures the student had submitted in an online database. Through due diligence, I was able to detect and identify that the student found the figure drawings online first and sketched them, and then, in an attempt to deceive, faked the photos in the process-work.

It is key to understand that visual plagiarism is a broad area and there are many nuanced, discipline-specific concerns when considering prevention and detection strategies. Requiring process work from students to see the linear way they developed their work is a good practice but not failsafe. Communicating with students about the significant differences between inspiration and copying can help students understand that for their work to have been “inspired” by something, there must also be “departure.” Detection may begin with intuition but is followed by basic keyword searches and online tools such as reverse image searches through companies like TinEye and Google, which are increasingly becoming more effective as their databases expand. A golden rule to impress upon students is that it is fine to use something as inspiration, but they must cite and change an original image/artefact in multiple significant ways so that the resulting work is new and communicates a different message (Table 14.3).

Visual Plagiarism in Architecture (Vincent Hui)

It’s a Copy, Right? Visual plagiarism in architectural design is predicated on the notion that although there are commonalities in materials, methods, and models

Table 14.3 Best practices in preventing visual plagiarism in illustration

Challenges in digital media	Best practices
Work is aesthetically or stylistically similar to others e.g., Student replicated the style of a published illustrator/designer	Prevention Be clear about the expectations Emphasize the need for originality despite what the practices of industry or the discipline may be
Work formally similar to others e.g., Student copied composition/layout	Ensure ample discussion with students regarding the difference between inspiration and copying associated with the area/discipline
Work is technically similar to others e.g., Student traced figure drawings	Require process work and scaffold it into assignments. Students should cite and submit all references with their process work Schedule work-in-progress critiques where students' present and discuss their work in development
Work is conceptually similar to others e.g., Student used the same idea as another artist/designer	Review process work—although there is an impulse to simply confirm that process work was provided, attention to detail at each developmental stage will help you learn the artistic voice and mark of each student and, if necessary, help you identify possible plagiarism in the final work
Faked process work e.g., Student took photos to mimic the position of a figure reference	Detection Be familiar with the visual material associated with the area/discipline Actually, LOOK at and review the process work
Contract cheating e.g., Student hires a person or agency to execute a component of the work or the project in its entirety	If you suspect misconduct, do a reverse-image search through services like TinEye and Google to find and evaluate similarity

of the design of a building, the intentions, method of expression, and relationship to context factors will ultimately result in a unique design response. Plagiarism in architecture occurs when key characteristics of the design of a space bear a striking similarity to those found in a previous architectural work and fail to demonstrate an appropriate design response with a reasonable level of development. If the visuals of an architectural design (in drawings, digital or physical models, or renderings) fail to showcase a developed design response to design parameters, then it is a weak project. If asked to design a lab in the Arctic circle and a student presents imagery of a white house, then there is clearly an inability to propose an appropriate design response. If the suite of visual material fails to demonstrate a design response and heavily derives its formal expression from existing work, then it is architectural plagiarism. If asked to design a house and a student presented the imagery of the White House, then it

is a clear example of focusing upon speed and form as opposed to development and response.

Despite iconic global architecture epitomizing cultures since the dawn of time, it was only in the 1950s when architecture emerged as a plagiarism case in California and was then formalized in the 1976 Copyright Act that curtailed the “*abuse of architectural documents*” in a Federal court decision (Giovannini, 1983). Though this law in architecture reflects a litigious era in architecture, it does not undermine the fundamental concept in architectural praxis that architecture is an evolutionary discipline that literally and figuratively builds upon its past precedents. From the architectural apprentices in medieval Europe to the digital designers producing bold architectural forms, architecture has been referential in its evolution. The critical step is to understand the line between developing upon precedent and outright plagiarism. Historically architects have not shied from heavy inspiration or outright copying of design elements, as seen in the resurgence of classical orders to recount the timelessness of ancient Greece at contemporary civic buildings or the callous copy/paste mentality of suburbia. Indeed, some famous architects have embraced the value of copying, from Robert A. M. Stern (“*As long as the source is good, I steal. Not in the sense of taking away from another architect- he is not poorer because of a theft but is in fact more influential.*”) to Robert Venturi (“*There is nothing wrong with being influenced, or even with copying. Imitating is how children learn... Doing something good is better than doing something first.*”) (Brainard, 1984).

To define architectural plagiarism, it is critical to understand a framework in establishing the similarities between architecture and other creative disciplines. Three differentiators in architectural praxis would be the extensive reliance on conventional commonalities, the nature of cascading changes, and the heavy reliance on collaboration.

Similar to how Western music has infinite outcomes with the same shared and limited notes, architectural pedagogy operates with baseline commonalities unique to the discipline including standards, convention, and shared components. A core component to architectural success is the ability to bring design innovation to operable, safe standards and within agreed upon conventions. To do anything less is sculpture. Architecture affords a range of aesthetic liberty, but all architects are beholden to regulatory standards and codes that may drive a similarity across projects with similar siting parameters (such as locations of fire exiting, window placement, or setbacks). Although regulatory constraints may initially seem confining, there remains a great deal of flexibility and interpretation that gives rise to design opportunity. As well, there are conventional dimensions in architecture that are effectively universal. To design a building with conventional level floors, vertical walls, or lights placed on ceiling would not be out of place in any given building and would be inherently expected in all architectural designs. To see commonalities like these across projects is expected. If convention and regulatory parameters create common guidelines for architects to operate within, another instance where commonalities among architectural work may emerge exist within the shared components used in contemporary design praxis. Building components (e.g., doors, furnishings, and lights) as well as supplemental entourage accessories (e.g., people, cars, vegetation) are available

to students either as asset libraries in design software or online through manufacturer sites and asset repositories. That students can compose an entire architectural proposal with these assets without fear of committing plagiarism is a testament to the pedagogical imperative to prioritize the design of space as opposed to the value of commodity components.

Unlike some visual disciplines where changes may be quite immediate and simple to implement, within architecture, any adjustment, unless purely superficial, results in a cascade of changes throughout a project. It is not only a three-dimensional exercise, but visible and invisible changes often require multiple steps to integrate. Shifting a window in a building not only results in corresponding changes in building plans and section (a type of drawing that is a cut through of a building), but also mandates coordination with other Architecture, Engineering and Construction (AEC) facets (e.g., mechanical and structural systems). If architectural design projects were scaffolded with weekly design studio review sessions, any changes would result in multidimensional changes. Instructors should put forth design directions and precedents that students can use to demonstrate a robust knowledge of the challenges in architectural design, detailing, and delivery.

In the architectural industry, every work is a product of collaboration with a range of stakeholders. In academia, however, because of the difficulty of assessing collaborative work for individual contributions, and because the work generated may ultimately become part of the student's professional portfolio, students are generally expected to design alone. Through the use of precedents contextualized during design reviews, instructors can help mitigate that isolation and help students understand how to build upon the work of others while still creating work of their own.

Architectural Praxis: Everybody is doing it, just do it right. Architecture instructors must always bring precedents into discussion to make it clear that drawing upon them is not bad; however, indiscriminately copying them is. Like most creative disciplines, architecture is steeped in a tradition of looking at precedents for not only aesthetic inspiration, but also to expand a knowledge base on materials and methods others have developed as solutions to similar design challenges. Precedents must be conceptual, not literal. Instructors should use more than one example to make a concept clear as opposed to presenting a single "solution;" through multiple examples, a student is able to see the opportunities for appropriately responsive integration in their designs.

At design reviews, though, students are often overwhelmed with the feedback they receive including the litany of precedents presented to them. While a student pores through imagery, there is a tendency to focus less on the unique response and concepts at play and more on the formal design output to readily address the design challenge posed by reviewers. For example, at a studio review an instructor may suggest a student consider integrating sustainable design strategies and put forth some built precedents to examine, and the student may run the risk of plagiarism by hastily applying features from these precedents in a haphazard way often resulting in a "Frankenstein" or "Fruitcake" project—that is to say, a discordant amalgam of used or inappropriate parts that is either a monster or something nobody wants. To avoid creating Frankenstein, instructors can help students identify the concepts in the precedents (e.g., solar orientation, water reuse, limiting heat loss) and reinforce

the importance of integrating them into their work within the programmatic and contextual parameters of the project as well as tempered with the student's aesthetic sensibilities. Asking students to identify a) the commonality and b) the applicability to their own design project can confirm that the student understands different ways at approaching a design response without undermining their own design intentions.

How to Copy Right

The following is an outline of some of the measures faculty may integrate in preventing visual plagiarism in the architecture design studio (Table 14.4).

Though visual plagiarism in architecture is unacceptable, integration of precedents to form a unique response to specific architectural conditions is not. This tradition is how architecture continuously evolves, and faculty should encourage students to understand this paradigm of operation. Faculty must inculcate in students a skill in developing a unique design response to an architectural challenge, a comfort in navigating, synthesizing, and presenting ideas from precedent, and an awareness of how to manage their resources to produce their unique design solutions. Building upon the work of past architects as well as drawing upon colleagues' work is core to success in architectural praxis.

Discussion

In each of the case studies described here, discipline-specific recommendations are made for preventing and addressing visual plagiarism. Despite the varied nature of the disciplines included in this chapter, several common themes emerge. Firstly, it takes a village. No sole instructor can be responsible for providing the required and necessary tools students need to succeed. Rather, a collective approach may be much more effective. Schools and departments across institutions in Canada (and abroad) routinely provide training to students on how to cite in written work and how to avoid text-based plagiarism. We are suggesting that a similar approach be taken to training students in visual plagiarism. Although an institutional standard may not be appropriate, departments of architecture or fashion (using two examples described here) in a given institution can take a departmental approach, where norms are established and clearly communicated to instructors and students. Of course, this requires institutional or departmental support as well as collaboration among instructors in a department. Although this may seem a daunting task, a close inspection of the best practices for preventing visual plagiarism in the four distinct areas presented here show significant overlap. For example, the practices presented for preventing visual plagiarism in presentation design and architecture can be applied, with little to no modification, in the field of digital media studies.

This collaborative approach in no way replaces the vital role of individual instructors in preventing visual plagiarism. As described in the case studies above, use of

Table 14.4 Best practices in preventing visual plagiarism in architecture

Challenges in architecture	Best practices
<p>Precedent similarity e.g., Work formally similar to others; work aesthetically similar to others; work procedurally similar to others</p>	<p>Preparation Make a developmental document/booklet that showcases the evolution of the design throughout the duration of the project Have students outline their design intentions in a single sentence design statement and parti diagram and use that as the guide for each review</p> <p>During Design Development This essentially scaffolds subsequent reviews so student designs cannot copy/paste but instead synthesize solutions Have a strong vocabulary of precedents to showcase to students including hardcopy and digital/online media Find a venue to share and showcase precedents and student work (e.g., blogs, social media, pinup board) Encourage students to look at and share with the class precedents to ensure awareness of what is currently done as it deters direct copying Foster an understanding that architecture advances upon precedents and students are expected to do the same</p> <p>After Deadline Have students critically examine each other's work near the deadline and ask them to identify potential similarities with any precedents they encountered while doing in the project</p>
<p>Student work similarity e.g., Students have exhibited similar design ideas; students have similar stylistic methods of representation</p>	<p>Preparation Pre-emptively showcase to students all the notable current projects similar to what the students are doing</p> <p>During Design Development Students should have a venue to share their work with not only the instructor but their peers as well to ensure everyone can witness and learn from individual development Have students review each other (in pairs or small groups) so they can offer feedback and in cases where there are similarities, they can identify ways to differentiate</p> <p>After Deadline Post up all student work for others to see Allow students to comment on any similarities they have found from their classmates' work based upon their own work or precedents</p>

(continued)

Table 14.4 (continued)

Challenges in architecture	Best practices
Layout similarity e.g., Presentation boards share the same organization or aesthetic; student architecture portfolios share the same layout and annotation styles	Preparation Assign a small component of the project assessment to layout, specifically its ability to align with the student’s project During Design Development Make it a point to ask students at intermittent reviews to showcase a general layout of their work as it determines layout as well as anticipated volume of work to be produced Ask students for mock-up presentation boards/booklet layouts for pinup and make them assess their work against their peers before the deadline After Deadline Encourage students to post up their content online (such as portfolios) to a single repository for others to view Include the top layouts in an end of term gallery (online or physical)
Lack of citation e.g., Failure to reference precedent work in any given presentation; withholding evidence that the student had access to information/resources others did not, like drawings from an architect’s office	Preparation Mandate that students submit a citation sheet as part of the assessment; this may also be included in the aforementioned developmental booklet During Design Development Present multiple examples of precedents for a student to integrate into their design work and ask students to visually show how they integrated the ideas into their work in subsequent presentations Make a point of collecting all the precedents that the students have been drawing upon and ensure that there is a platform to share it so that there is a comfort in drawing upon design precedents After Deadline Remind students that if they wish, they can submit their citation sheet any time prior to their presentation as it allows them to take time to critically look at their own work without feeling rushed

(continued)

third-party images and designs can be addressed directly with students by requiring them to engage with these visuals as part of their assignments. Demonstrated knowledge of how to work with and cite other people’s visuals can be an intended learning outcome. Asking students to demonstrate that they understand concepts of visual plagiarism and including a grade will help to communicate the importance of the issue. To that end, scaffolding assignments, asking students to provide drafts and

Table 14.4 (continued)

Challenges in architecture	Best practices
Group work citation e.g., Students using work produced by their colleagues for assignments or portfolio; students integrate work they did that overlaps with peers' content	<p>Preparation Create a group agreement where every student acknowledges that they must cite each other for work produced including agreed methods of citation and methods of recourse Make it known that at the end of the term, all students' contributions will be shared with the team (or at a larger venue)</p> <p>During Design Development Keep in contact with students to remain abreast of which students are working on what part of an assignment Speak to those students whom other group members indicate may not be as active to ensure the student does their part and does not inappropriately draw upon their peers' work</p> <p>After Deadline Post up the final submission where students can see what others have claimed as their own work</p>
Time management e.g., Student failed to manage their time and copied another project in desperation; student ran out of time and copied a technical component of another project	<p>Preparation Set milestones with specific requirements and content demands (e.g., a structural analysis, interior perspectives) so that there will not be a need to haphazardly copy other work</p> <p>During Design Development Ask students to set a weekly schedule for themselves at the end of each design review to establish priorities, design goals, and feasibility to prevent copying in desperation</p> <p>After Deadline Allow students to submit any pertinent citation deliverables between the deadline for the principal design deliverables and presentation/assessment</p>

process work gives instructors the opportunity to identify gaps in students' knowledge and the chance for students to learn from their mistakes.

As mentioned above, the dearth of published research on and institutional recognition of visual plagiarism is of particular interest (Eaton, 2017). Even within the academic integrity community, visual plagiarism, while a topic of great interest to some, remains a complete unknown to others. Historically, text-based plagiarism has been the go-to for academic integrity researchers, though that is changing with the global increase and awareness of contract cheating. Our hope with this chapter is to raise awareness of visual plagiarism as an issue. Through the use of four discipline-based case studies we have shown that visual plagiarism is an issue in a variety of fields, not all of which are necessarily dominated by visuals.

Conclusion

The dearth of literature on visual plagiarism can be seen as both a threat and an opportunity. There remains, in Canada, and globally, tremendous opportunity for research and growth in this important domain. We strongly recommend that institutional policies are amended to include visuals as part of their definition of plagiarism. In addition, we recommend that research looking at the prevalence of academic misconduct include visuals as part of their research. Finally, we recommend that departments and instructors embed learning outcomes concerning visual plagiarism into their curricula, explicitly recognizing it as an essential skill.

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