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## **Digital costume sketching through embodied awareness**

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### **Abstract**

This article presents a method for costume design, where empathy and embodiment are used as methodological choices by the designer in the character-creation process. In creating references for the sketching process, costume designers combine photos in which they portray themselves as the character that they imagine. These role-selfies, taken with a handheld tablet, work as starting points for the sketching procedure. The material for the present study is collected from MA costume design students who participated in digital character-creation courses at Aalto University, in Helsinki, Finland, and is a part of doctoral research by the author. The data are collected through a mixed-method approach and is organized as a case study investigating the experiences of using the body as a source for costume design. The research question in this study is as follows: does an awareness of one's own body facilitate the sketching process? The initial results show that the research participants consider the method useful because it enables them to experience a stronger bodily connection with the digital medium, the imagined design and the emerging character in the costume sketching process. Hence, the findings of this study can be used to develop design and teaching practices not only in the field of costume design but also in other design processes involving character creation.

### **Keywords**

costume design

digital costume sketching

embodiment

empathy

touch screen

role-selfie

## **Introduction**

This article discusses empathy and embodiment as methodological practices for approaching character creation, enabled by a digital drawing platform. In this qualitative research, a portable tablet works as a sketchbook and a costume designer draws sketches directly on the screen of the handheld device. A systematic understanding of how embodied awareness contributes to digital costume sketching is still lacking. In this study, it is important that a material-discursive practice is produced through the body/device activity and this discursive practice affects the design process (Barad 2007: 230). The data collected for this study focus on the material practices of the costume designer's sketching process and the designer's familiarity with their body and modern technology. The artistic research undertaken by the designer-researcher contributes to a deeper understanding of advanced digital screen sketching methods and proposes new ways of developing design practices in the field of costume design.

The main material for this article is collected from the costume design students who have participated in the digital character-creation courses that I conducted at Aalto University. In the courses, the students mix traditional and digital hand-drawing techniques, utilizing a touchable tablet as a digital sketchbook. Using a handheld device containing a camera when sketching digitally enables the creation of what I term an empathy-oriented role-selfie, used

as a reference point for the design. The term ‘role-selfie’ is used to describe the image that costume design students take of themselves with a tablet and its use in costume sketching. Through this material-discursive practice, costume design students engage with their own bodies in creating the character according to Philip Brey ‘one’s body is a medium through which one engages the world’ (2000: 100). As there is not yet any specific, established term for the method discussed in this study, I refer to it here as an empathy-oriented drawing method due to the connection created between designer and design.

In the empathy-oriented drawing method, costume sketching begins with an image of a character that the designer establishes in their mind – the way the character moves, acts and speaks – through role-playing. Empathy is the capacity to place oneself in another’s position (Bellet and Maloney 1991: 226). A more detailed perspective has been adopted by Daniel Batson (2009: 9), who has introduced eight phenomena of empathy:

- Knowing another person’s internal state, including his or her thoughts and feelings
- Adopting the posture or matching the neural responses of an observed other
- Coming to feel as another person feels
- Intuiting or projecting oneself into another’s situation
- Imagining how another is thinking and feeling
- Imagining how one would think and feel in the other’s place
- Feeling distress at witnessing another person’s suffering
- Feeling for another person who is suffering.

From these distinct phenomena of empathy, the definition ‘intuiting or projecting oneself into another’s situation’ is essentially the kind of empathy that a costume designer uses when designing costumes for characters. The designers project themselves into the situation of the

character as described in the script. By stepping into the shoes of the character, a designer internalizes the nature and the essence of the role and uses that embodied understanding as a starting point for sketching. Film director Welby Ings (2014) has highlighted the relevance of being deeply involved, both physically and mentally, in the drawing process. He states that 'one is not outside of one's self, drawing to create a picture, but inside one's self, drawing to explore the potentials of a thought' (Ings 2014: 2). Costume sketching, like drawing, is a process that involves both thinking and activity. Drawing 'is thinking and acting between the not yet formed and the formed' (Rosenberg 2008: 114). In the empathy-oriented drawing method, the mental constitution and entire body of the designer are involved in the early stages of the costume design process.

The article begins by looking at how to approach the research through the embodied imagination when using digital drawing platforms. It will then go on to introduce the empathy-oriented costume sketching method. The third part is concerned with the methodology used in the digital character-creation courses. The last section illustrates the results of the analysis, focusing on the results of how empathy-oriented costume sketching through embodied awareness affected the costume sketching process.

### **Empathy through embodied imagination**

Embodied costume sketching is thinking about a character while 'acting' with both the body and pencil. Finnish architect Juhani Pallasmaa highlights the need for both physical and mental structures in the design process. He argues that in creative work the entire bodily and mental constitution of the maker becomes the site of the design process. Pallasmaa claims that when designing, an artist is engaged bodily with their existential experiences, rather than

focusing only on an external problem (2012). The same model works for the costume design process. When costume designers have the concept of the costume design inside their head, they simultaneously project it through embodied imagination, while drawing the costume sketch for the character. In the same vein, Richard Sennett writes about the relationship between making and thinking: 'I make two contentious arguments: first, that all skills, even the most abstract, begin as bodily practices; second, that technical understanding develops through the powers of imagination' (2008: 10). In the empathy-oriented drawing method, the technology of a handheld device becomes an assistant and tool for experimentation. Modern technology lends itself well for these purposes as it gives the drawing new and multimodal dimensions. League of Legends (LoL) offers an example of how the video game industry uses a digital character-creation method similar to the empathy-oriented method. The Splash Artists, who create the LoL concepts, use their own images as a reference in the character-creation process. Splash Artist 3rdColossus explains his experience of the method:

There's also this weird phenomenon when you act something out where you empathize with the character you're drawing. I know that sounds weird, but it leads you to certain decisions that make your drawing feel like the real thing that wouldn't have necessarily occurred to you if you drew it without experiencing it. (Brown 2017)

Ideation through an embodied immersion of the character unites with philosopher Alva Noë's view that '[w]e can suggest that the mind, instead of being situated only in the head, would be distributed throughout the experiencing body' (2009: 159). There are earlier examples within traditional costume sketching that illustrate how costume designers have utilized embodied drawing methods to clothe the character. For example, Finnish costume designer

and actress Liisi Tandefelt has shuttled between these two professions throughout her career. Costume sketching provided additional role work during periods when she was not acting on the stage (Weckman 2015: 161). While drawing she could imagine herself living within the character. Another example is the English costume designer Anthony Powell, who describes his method as follows:

For me, the process of drawing is getting to know the characters intimately and putting oneself in their place so that one knows them from the inside. You can make yourself feel how that person can stand and [how they] hold themselves, their body language. (Nadoolman Landis 2012: 329)

Tan Huaixiang (2004) claims that when a designer draws a costume sketch with the respective essence of the character, the costume sketch transmits the idea not only through the lines of the drawing but also through the position of the character and the expression of the face. Alva Noë's argument supports this premise, as he states that, when a person views a portrait, the viewers do not only see the projective properties of the picture, form, shape and colour; they see a person (2015: 150). By using embodied awareness to draw the character, a costume sketch transmits the nature of the character to the viewer. The sketch assists the interpreter in understanding the essence of the role better than through a costume sketch with a faceless figure and a rigid pose, where a designer concentrates only on the materialistic aspects of the costume. According to Margaret Wilson, a human has the ability to form mental representations about things that are remote in time and space:

We can lay plans for the future and think over what has happened in the past. We can entertain counterfactuals to consider what might have happened if circumstances had been different. We can construct mental representations of situations we have never experienced, based purely on linguistic input from others. (2002: 626)

In this case study the students utilized this characteristically human ability in the costume sketching exercise. The aim of the embodied exercise was to imagine the internal state of another person, testing Daniel Batson's claim 'that we can successfully imagine another's internal state by drawing on our lay theories of what people in general, or people with other's specific characteristics, are likely to think and feel' (2009: 8).

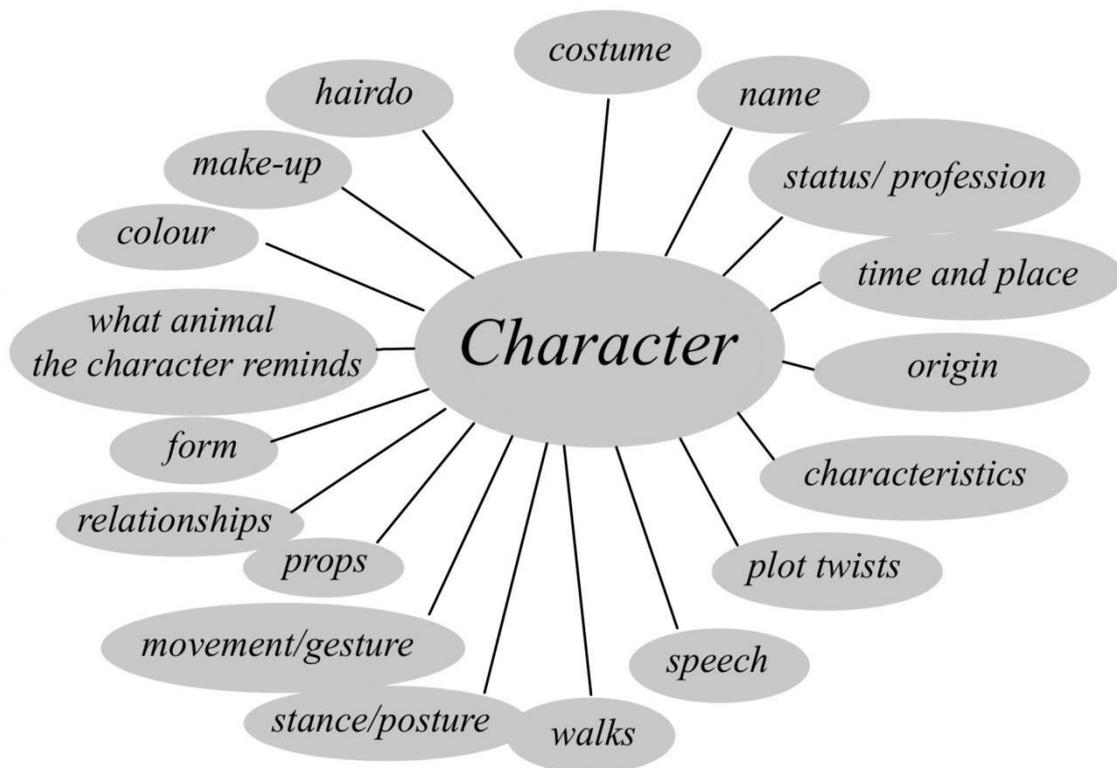
## **Methodology**

The empathy-oriented costume sketching process was introduced to sixteen MA costume design students, who participated in the digital character-creation courses at Aalto University during 2016 and 2017. The purpose was to encourage them to adopt the gestures of the characters' actions and facial expressions in narrative-based exercises. In these exercises, the actions of the students were recorded by a handheld tablet with a digital camera. The photographed image appeared on the screen of the digital sketchbook, where it could be worked on immediately.

The goal of the digital character-creation courses was to develop the participants' understandings of the relationship between their bodies and the imagined characters. The hope was that this new sketching method could work as a springboard for innovations in their digital costume design processes. Learning occurs during the actual practice of costume

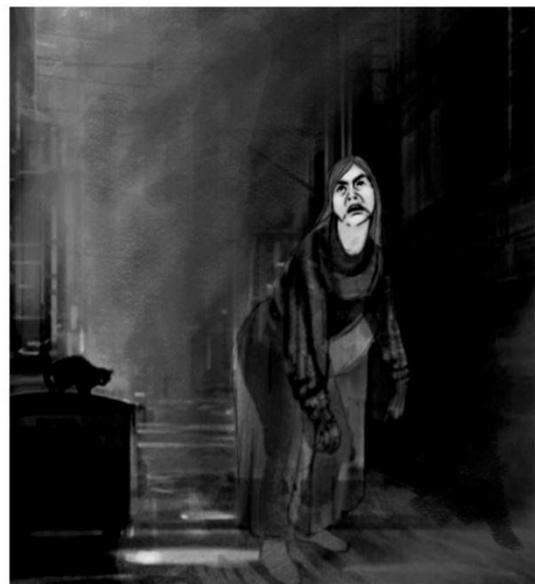
sketching and experiential learning plays a significant part in encouraging students to adopt new tools for their digital character-creation processes. Learning happens through imitation – imitation of examples – or as in this case, the imitation of the character that one has in mind.

In the exercises given to the students, the nature of a character was described to them verbally. I presented eighteen features highlighted in Figure 1 below to the students and asked them questions related to the personality of a character.



**Figure 1:** A mind map for character creation. Illustration by Kirsi Manninen, 2016. In this exercise, most of these features were based on the *Actors' Handbook* (Rudlin 1994).

Through mental representation, students contemplated these eighteen features in their mind before the photo session. The process allowed the costume design student to become immersed in the world of the character: how the character walks, talks, stands, looks and thinks. These eighteen features aim to illustrate the persona of a character from different viewpoints, enabling the students to immerse themselves in the role. After completing the mental representations of the character in their minds, the students took steps towards a more tangible costume sketch by means of photography. The students photographed their bodily gestures and poses, creating role-selfies using the camera contained in the touch screen device. By self-modelling, they generated the conception of the character through their experiencing and acting bodies – role-playing was a starting point for sketching. Figure 2 below shows an example of the method. On the left-hand side a costume design student poses as the imagined character. The students applied the captured role-selfie to graphic design software on the digital sketchbook to create the final costume sketch. The final finished costume sketch is shown on the adjacent picture on the right-hand side.



**Figure 2:** Empathy-oriented digital costume sketching through embodied awareness. Data

from the digital character-creation course conducted by Kirsi Manninen in February 2016 at Aalto University. Courtesy of the costume design student.

### **Material and methods of analysis**

Data were collected on how students interacted with modern technology in the material-discursive costume sketching procedure. Data collected for this research consist of the following:

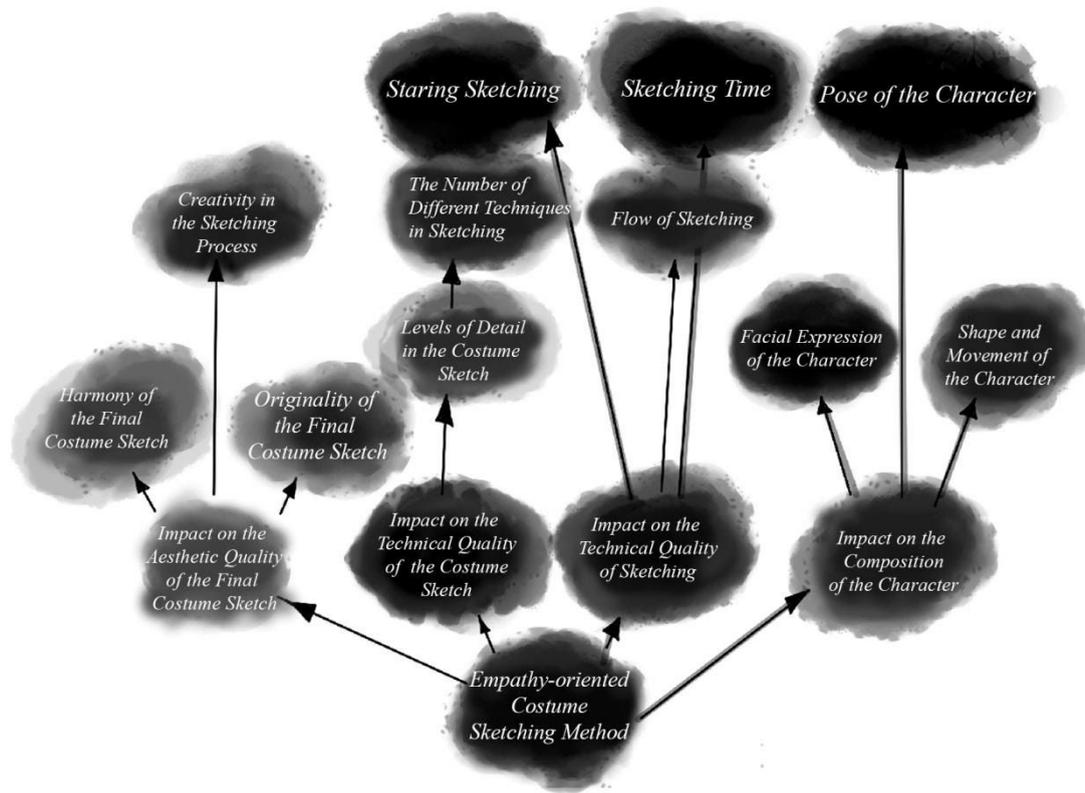
- Traditional costume sketches
- Digital costume sketches
- Teaching observations
- Video recording and time-lapse-videos of the digital sketching process
- Researcher's diary entries
- Interview questionnaire.

The collection of these types of data is due to the fact that the research focuses on the changes in the designers' costume sketching processes. The data of this transition phase consisted of the traditional and digital costume sketches. The first step in this data collection process was to ask the students to choose one of their existing costume sketches, which they had drawn by traditional means before the digital character-creation courses. This costume sketch had to be implemented without the computer. Otherwise, the students were given free choice as to the sketching methods that they employed, as seen in Figure 4. The samples of digital costume sketches were *generated* during the courses, consisting of digital images and video recordings.

Videos of digital costume sketching were analysed to examine whether an empathy-oriented costume sketching method affected their processes of costume sketching. The video analysis showed that the use of the role-selfie facilitated the early stages of the sketching process in particular. However, this study also suggests that the method did not have a similar influence on the later stages of sketching. The results from the video analysis are in line with my teaching observations and diary entries, which recorded my experiences of applying this method (Manninen 2016–17). According to the diary entries, written after observing students: ‘The exercise where students were photographing their bodily gestures and poses seems to work well. Students find it fun and useful to use their own body as a reference in the character creation process’ (Manninen 2016: 12).

In the questionnaire, the students were asked to indicate whether the method had influenced their sketching process. They were also asked whether they thought using the role-selfie as a reference point was useful in creating a digital costume sketch. Finally, the students were asked to describe with three adjectives how it felt to start drawing in the traditional way or with the method introduced in the digital character-creation courses. Some of the adjectives they used to describe beginning the process of traditional sketching included tangible, familiar, honest, whereas those describing how it felt to start drawing characters digitally included, for example fast, effective, liberating. The questions thus investigated the impact on:

- The process of the costume sketching
- The technical quality of sketching
- The composition of the costume sketch
- The aesthetic quality of the final costume sketch



**Figure 3:** The bubble chart illustrates the results of the analysis; the darker the clouds, the more common the feature in the results. Illustration by Kirsi Manninen, 2017.

The analysis presented in Figure 3 demonstrates that, of the participants who answered the questionnaire, most considered the method to have the greatest impact on the technical quality of costume sketching and less impact on the aesthetic quality in the form of sketching techniques. The empathy-oriented sketching method had the strongest impact on the pose, the amount of sketching time and the beginning of the sketching process. The results of the analysis supported the observations of the students made during the courses. The analysis shows that the method has the strongest impact on the early phase of designing, the amount of time used for drawing the sketch and the pose of the character in the costume sketch. The method also had an impact on the composition of the final costume sketch. The resultant

costume sketches had a greater sense of movement and the postures of the figures in the sketch were less rigid than in the costume sketches that students had made by traditional means. In digital costume sketching through embodied awareness, the body of a costume designer can work as an unrecognized hero behind a digital character design process. These differences between traditional and digital costume sketching can be seen in Figures 4 and 5.



**Figure 4:** Traditional costume sketches by the MA costume design students. Data collection for the digital character-creation course in February 2017 at Aalto University. Courtesy of the design students.



**Figure 5:** The MA costume design students have stepped into the shoes of a fictional character. Data from the digital character-creation course in February 2017 at Aalto University. Illustrations by the design students. Courtesy of the design students.

## **Findings**

The exercise of conducting an empathy-oriented sketch through an embodied approach requires imagination and an open mind. First, the students found the process of taking role-selfies to be a little strange. It was considered challenging to create a representation of the character through role-playing and self-modelling. After the initial tension and seeing others succeed in the task, the students considered the act of embodying and playing out the character in their own photos as a positive, fun and worthwhile exercise. The method enabled these costume student designers to experience a stronger bodily connection and interactivity with the digital medium that was not possible while sketching with pen on paper. The

students who utilized their own role-selfie as a reference point for drawing the characters experienced it as beneficial in several ways. First, they were able to start drawing the position of the character in the costume sketch more easily because they utilized the photo as a starting point and did not have to draw the first line on a blank screen. Second, the empathy-oriented costume sketching method assisted the costume designers in creating the facial expression of a character as shown in Figure 6.



**Figure 6:** Digital character creation through embodied awareness. Illustrations are screenshots of the time-lapse videos recorded during the drawing process of the students. Courtesy of the design students. Data from the digital character-creation course conducted by Kirsi Manninen, February 2016 and 2017 at Aalto University.

Students generally regarded the process of starting a sketch as one of the most challenging steps, especially the creation of the correct pose and face for the character. These results are in line with my own personal experiences in costume design. By importing their own ‘bodily formed’ role-selfie to the bottom layer of the digital sketchbook, designers could start sketching in a novel way. When the costume designer mixes a role-selfie image and digital hand-drawing in the process of costume sketching, the designer seems to become more easily immersed in the world of the character. Why is it useful to utilize your own role-selfie as a

reference for character creation? First of all, the designer can get exactly the pose they want and do not have to spend time searching for positions online. Based on my own experience, I considered the empathy-oriented method more appropriate for sketching costumes for scripted plays and movies with a strong story behind the character than works based on improvisation. However, the method suffers from some limitations. When the character or the actor being portrayed has a very different body shape than the designer, a costume designer may need more time to create the right gesture for the character. If a designer is able to photograph a portrait of an actor as a reference for the sketching process, the actor can come up with different types of poses for the character than the designer, whereas when a costume designer uses their role-selfie as a reference, the 'model' is always at hand.

Artists have always utilized models and mirrors to research how the human body is supposed to look. The method where the own body of an artist works as a reference is not a new technique for sketching – yet this study is a bridge between the physical and digital sketching. As Karen Barad argues:

The past matters and so does the future, the past is never left behind, never finished once and for all, and the future is not what will come to be in an unfolding of the present moment; rather the past and the future are enfolded participants in matter's iterative becoming. (2007: 81)

The empathy-oriented drawing method assists designers in creating a costume sketch that shows the viewer the way the character wears clothes. The immediate collaboration with the costume designer's body, mind and the digital medium can provide more options for the

artistic expression of a costume designer than a costume sketch made by traditional means with pen on paper.

## **Conclusions**

These results are significant in at least two respects. First, empathy-oriented costume sketching through embodied awareness facilitated the initiation and early phases of the sketching procedure. Second, the bodily engagement had a positive impact on finding the correct position and pose for the character. Observation of costume sketching and video analysis revealed that, while utilizing a role-selfie on a virtual paper and using another layer as a tracing paper, the research participants did not need numerous attempts to draw the first digital line. The beginning of the drawing process was conducted confidently, and the participant did not require as much time to start the sketch compared to processes without a role-selfie as a starting point. Thus, the student could concentrate on the design of the personalized costume items of the character. Analysis of the questionnaire produced the uniform result that the method has the most obvious impact on the early phase, the sketching time and the pose of the character. The analysis supports the premise that the embodiment led to the development of a new practice in the digital costume sketching process. The method might be less useful when designing costumes for unscripted performances such as different forms of contemporary dance or spectacles where an individual character or a performer is secondary or ambiguously defined. Although the current study is based on a small sample of participants, the findings of this study can be used to help develop design and teaching practices in the field of costume design. The approach may be transferable into the design of fictional narratives in media forms as diverse as picture books or animated narratives. These

findings provide the following question for future research: how does digital costume sketching effect the communication between costume designer and the creative team?

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