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## EMOJIS: VISUAL COMMUNICATION IN HIGHER EDUCATION

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### Abstract

*Emojis are increasingly becoming part of the lexicon many of our students recognize and use daily, and they are being touted as leading the way in the development of visual communication for sharing ideas and information. However, while research indicates that their use is helping to clarify or disambiguate messages, a number of issues have restricted their adoption in educational communication and feedback. To ensure that the intended connotation of an emoji is conveyed, companies that use emojis for branding and marketing, such as Pepsi, MTV, and Burger King, rely on custom-designed emojis their consumers can recognise and use in their text messages. Not only are these emojis used for selecting and ordering products and providing feedback on services, customers use them when communicating with their friends and family. To emulate the successful implementation of emojis in commerce, their use in higher education needs to be as targeted in purpose and meaning, and instructional designers need to define and develop a set of emojis specifically intended to support contemporary social-constructivist pedagogy. This paper looks at the current use of emojis in business and education, and examines how a sound instructional design approach to the development of emojis could support learning through shared visual elements in contemporary social/educational media environments.*

### Keywords

Emoji, Instructional design, Visual communication, Collaborative learning, Constructivism

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## 1. Introduction

Considered a further development of emoticons that have been commonly used in computer-mediated communication for over 30 years, emojis, based on manga art and Japanese Kanji characters, are seen as “a mechanism to provide contextual information and emotions” (Skiba, 2016). Today, emojis are increasingly becoming part of the lexicon many of our students recognize and routinely use in their online communication. The latest industry research indicates that 38% of users who send messages with emojis several times a day are within the age bracket of current undergraduate students (Emogi Research Team, 2016).

While some researchers indicate that the use of emojis is helping to clarify or disambiguate messages (Kaye, Wall & Malone, 2016; Riordan, 2017), others point to confusion among users due to the different platforms used, e.g. Google, Apple, Facebook, etc., and differing cultural interpretations (Miller et al., 2016). Addressing these particular concerns, businesses that use emojis for branding and marketing, such as Pepsi, MTV, and Burger King, ensure that the intended connotation of an emoji is conveyed by creating custom-designed emojis their customers can easily recognise and use while texting an order or commenting about the product on social media. This business approach is proving successful and being widely embraced by targeted consumers (Murray & Twomey, 2016). What is needed in higher education is an approach that emulates the effective use of emojis in business; one in which emojis are given specific meanings relevant to the pedagogical context.

As noted by many educationists, higher education continues to promote student centred constructivist pedagogy as the contemporary paradigm of university teaching and learning (Krahenbuhl, 2016). A constructivist approach entails that the role of the teacher becomes that of a guide or mentor (Weimer, 2002; Wright, 2011) and thus requires teachers to be nurturing; encouraging students to persevere while providing constructive feedback (Hattie & Timperley 2007). For this rapport to be achieved, the tools used for enabling teacher/student discourse need to include features that encourage a friendly, open and trusting relationship, while facilitating simplicity and clarity in conveying a message. Emojis and their emoticon precursors have been fulfilling this purpose in an ad hoc manner for decades and are challenging text-based communication networks by allowing people to present negative feedback in a positive way (Doiron, 2016; Dunlap et al., 2016; Jingqian, Sung & Jiarui, 2016). Grounded in social learning theory and constructivist pedagogy, new and existing emojis can be defined, designed and developed to support learning through online communication (Doiron, 2016).

## 2. Emojis Today

The Emoji Research Team (2016; 2015) has been tracking and analysing the rise of emojis as a modern social and marketing phenomena in the USA. They note a rapid growth in usage since Apple added the emoji keyboard to its operating system in 2011. By 2015, 92% of people communicating online used emojis, and one year later, 2.3 trillion mobile messages sent had emojis in them. In social media, as emojis have replaced internet slang, lol is now 😂, digital communication has become shorter, and as some users have suggested, more intuitive (Emoji Research Team, 2015). Instead of writing a sentence, a thought can be communicated using an emoji and as a result, “what used to take 30 seconds to read and digest can now be understood instantly” (Read, 2016). Emojis can essentially allow users to emphasize and enhance messages in a way that text alone cannot (Bliss-Carroll, 2016).

Most users indicate they are satisfied with the existing emojis, however those who use emojis in one or more messages a day would like to have a greater selection; e.g. not only the generic dog emoji 🐶, but one for different breeds 🐕, 🐈 (Emoji Research Team, 2016). Users who have already been introduced to customized branding/marketing emojis don't necessarily use the generic emojis for beer 🍺, coffee ☕ or doughnut 🍩, but opt instead for their personal brand, such as the Bud Light beer can emoji 🍺, the Starbucks coffee emoji ☕ or the Dunkin Donuts emoji 🍩. Hence, users want to be more precise and detailed in their social media messaging, especially when they are communicating with people they know well.

Research indicates that the relationship between the sender and the receiver of messages with emojis is an important factor in their interpretation. Bliss-Carroll (2016) sees this as playing a pivotal role in grasping the intent and meaning of a message. The interpretation of an emoji is also related to its universally accepted meaning and is seen as a means to express a shared idea when the exact connotation of a particular emoji, or combination of emojis, is common knowledge (Alshenqeeti, 2016). A recent study found that more than 90% of respondents agreed on the meaning of the 😂 emoji, while their interpretation of less commonly used emojis varied depending on their relationship with the sender and the context of the communication.

The increasingly popular use of emojis has also spurred research into the affective role of facial icons, but research looking at the role of non-facial emojis as expressions of mood or intent is scarce (Riordan, 2017). However, in a recent study in which participants (n=1502) were asked to rate text messages with non-facial emojis on a negative to positive

emotions scale, Riordan (2017) found that even though they do not depict emotions, non-facial emojis may serve the same affective purpose as facial emojis.

### 3. Social Presence in Educational Communication

Based on John Dewey's experiential learning (Dewey, 2009), Lev Vygotsky's social-constructivism (Vygotsky, 1980) and Jerome Bruner's learning theory (Bruner, 1985), contemporary social-constructivist pedagogy is leading a paradigm shift in higher education in which learning is student centred, collaborative and cooperative (Ford & Lott, 2011; Fitzpatrick & Donnelly, 2010; Khedkar & Nair, 2016; Rege Colet, 2016), while offering the added benefit of giving students the opportunity to develop social skills (Harding-Smith, 1993).

Facilitating discourse in educational communication is an essential element of constructivist pedagogy and the challenge is to empower a "social presence" that inherently upholds a "cognitive presence".

"Social presence reflects the ability to connect with members of a community of learners on a personal level. Cognitive presence is the process of constructing meaning through collaborative inquiry." (Garrison, 2006).

Swan and Shih (2005) looked at social presence as the degree to which participants in computer-mediated communication feel affectively connected to one another. Their findings support those of previous studies (Gunawardena, Lowe & Anderson 1997; Richardson & Swan, 2003; Tu, 2000) which indicate that student's perceptions of social presence correlate with their satisfaction of participating in online discussion activities.

Fitzpatrick and Donnelly (2010) point out that encouragement and motivational assistance when providing either instructor-to-student or peer-to-peer feedback, is a critical component of educational communication. However, conventional online communication tools don't have emojis available and have proven inadequate at fostering feelings of sociability (Doiron, 2009). In a study that involved undergraduate students (n=147) doing a semester long online collaborative activity using a traditional discussion forum, one of the feedback survey questions asked "Why do you feel your relationships with the other group members were either friendly or impersonal? The responses (n=76) showed that the top reason for feeling that the relationships were impersonal was that the online environment was not conducive to initiating or supporting any social interactions, and many students felt that the technology acted as a barrier rather than an enabler of personal social interactions. One student wrote, "There is no relationship. We don't know who the names belong to. All we see

are threads of opinions and we're only responding to that - not having anyone in mind", and another student explained, "There is not much of a relationship actually. It's like we are strangers contributing to the discussion. Feelings cannot be conveyed online. I prefer face-to-face discussion where everyone can get to know one another better and this may help towards contributing to the discussion".

Current research suggests that the use of emojis may enhance “social presence” by helping lighten the mood of the message or improve what might be perceived as criticism (Kaye et al., 2016), thereby contributing to a friendly, open and trusting rapport. Harn (2017) recommends that higher education organizations consider using emojis in informal communication with students in order to reduce social barriers and develop more personal relationships.

#### 4. Emojis in Educational Communication and Feedback

According to Ford and Lott (2011), the impact of technology on constructivist pedagogy has empowered teachers and learners to be effective collaborators in a context of shared social situations. They point out that communication technologies, such as online discussion boards, social networking sites, online chats, wikis, etc., offer “authentic societal context we live and socialize in... Industry, government, business down to the core of society, the family, communicate and collaborate using tools of technology” (Ford & Lott, 2011).

Today, communication technology tools have been transformed by the introduction of dedicated elements of visual communication. Although icon fonts such as Segoe UI Symbol, Webdings and Wingdings have been available in the past, the phenomenal rise of the emoji character as a feature of social communication has prompted some researchers to argue that they are expanding linguistic ability; “opening up new possibilities for innovative communication channels and expansion of traditional writing, making language more visual and playful” (Alshenqeeti, 2016).

With her good-humoured recommendation of a “tentative” emoji glossary, Jennifer Romig (2015) offers an example of a “more visual and playful language” for communicating feedback to students in her legal writing course. She generated a list of labels and tag phrases associated with available emojis which she uses as a type of shorthand for comments and feedback on writing assignments. A few examples include:

- 🦷 - Strong work
- 🧠 - Explain, reader does not have a crystal ball
- 😄 - Great
- 🙄 - This research looks out of date

- 🕶️ - This is cool

Romig explains that she uses imagery to sum up key ideas and make them "sticky" in students' minds, and that although the list was created for amusement, if "it encourages anyone to make their writing, teaching and commenting more vivid and memorable, that would make me feel 😊".


Doiron (2016) recommends the use of emojis for peer assessment tasks in online collaborative learning. He proposes a design that would make use of emoji characters for annotating the content of discussion forum posts in order to detail an individual's contribution to a collaborative writing task. Emojis would indicate items that had contributed to the grading of the posts, as well as provide a form of feedback. He suggests that a new category of higher education emojis be created, e.g. 🎓, comprised of specific emojis designed to highlight evidence of critical thinking such as statements that compare and contrast, explain causes, provide analysis or support a perspective, or apply knowledge within a different context. He mentions that other emojis could be used to note statements that present important factual knowledge, bibliographic references or web site hyperlinks, as well as statements that are collegial and acknowledged or encouraged others. Doiron (2016) presents a limited array of 🎓 emojis that are conceptually related to the nature of the contributions, such as:

- ✨ - for an exceptional critical thinking type contribution
- 💡 - for a commendable critical thinking type contribution
- 🖋️ - to indicate an item of important (noteworthy) factual knowledge
- 📖 - to highlight a bibliographic reference
- 🌐 - to highlight a web site hyperlink
- 👍 - for a statement of collegiality




Doiron explains that the emojis used in annotating the discussion forum posts would show the person who submitted the post that their contribution to the assignment had been noted. The emojis would also serve as the basis for a scoring rubric used to assess total contributions to the assignment. He proposes that the emoji type and frequency be used in the assessment criteria, for example:

When scoring for 📖 bibliographic references, the rubric might specify that

- the "Excellent" level of a rubric requires six or more 📖.
- the "Good" level requires three to five 📖.

- the “Satisfactory” level requires one or two .
- the “Poor” level indicates that no bibliographic references were provided.

When scoring for critical thinking, the rubric might specify that


- the “Excellent” level of a rubric requires one or more .
- the “Good” level requires two or more .
- the “Satisfactory” level requires one .

## 5. Further Considerations

In order to consider the use of emojis to support constructivist pedagogy in educational communication, the deficiencies and concerns identified by researchers also need to be addressed. Miller et al. (2016) cautioned that not only is emoji usage and interpretation imprecise and culturally dependent, these misperceptions are exacerbated when different viewing platforms are involved. Because different platforms have differing sets of emojis, the emoji selected by the sender using a particular platform, e.g. Google, is not necessarily the same image viewed by the receiver using another platform, e.g. Apple.

As discussed earlier, another significant factor in the interpretation of emojis is the relationship between the sender and the receiver of an emoji-enhanced message (Bliss-Carroll, 2016). It is important to note that while the use of emojis in informal settings supports collegiality, its use in formal exchanges is seen as unprofessional and has a negative impact on the perception of competence of the emoji sender (Glikson, Cheshin & van Kleef, 2017).

## 6. Conclusion – The Way Forward

In their quest to improve the learning experience in tertiary education, instructional designers need to develop and evaluate collaborative educational communication tools congruent with present-day realities. Taking into account the concerns identified in the research, emojis selected or created as a distinct set for use in higher education (i.e. the  emoji category) need to convey a clear message, promote collegiality and show consideration for cultural differences in the interpretation of visuals. If such emojis are selected from the existing Unicode Consortium approved emojis, care must be taken to avoid confusion due to cross platform variants. If new customized emojis are created, these could be submitted for inclusion into a new Unicode version.

To ensure that the meaning or concept linked to an emoji is unambiguous, an “emoji lexicon for higher education” needs to be created and made available to students and

instructors. Moreover, instructors planning to make use of emojis in their courses, would need to include a lexicon in the course syllabus, and provide examples of their use in feedback messages and as grading indicators or other online communication.

The friendly relationship between the sender and the receiver of an emoji-enhanced message is not only a key factor in interpreting the message conveyed, but also critical for promoting online collaboration. Since online collaborative learning tasks are often seen as impersonal, causing some students to feel isolated and distrustful or indifferent towards others, instructional designers must ensure that 🎓 emojis elicit the collegiality that strengthens the “social presence” crucial to a constructivist approach towards learning.

While the link between social-constructivism and collaborative online activities may seem obvious, Fitzpatrick and Donnelly (2010) emphasize that this perspective still needs to be constantly re-examined. Research questions that need further exploration include:

- Does the use of emojis by students and instructors increase feelings of trust within a collaborative workgroup?
- Does the use of emojis by students and instructors increase engagement within a collaborative workgroup?
- Does the use of emojis by students and instructors help to disambiguate/clarify information and feedback?
- Does the use of emojis by students and instructors lead to the development of emoji idioms (combinations of emojis expressing a shared meaning) by a distinct group of users?
- What are the best practice issues to address when including the use of emojis in collaborative learning activities?

Today, visual communication is taking centre stage in social network settings and is becoming an established feature of communicating ideas and information. To stay relevant, educational communication needs to reflect the increasing integration of emojis in online conversations and tap their potential to enhance social-constructivist pedagogy. Emojis are the driver of an evolving language that supports the sharing and building of knowledge, and their role and effectiveness in establishing and sustaining a “cognitive process” needs to be continually explored, researched and developed.

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