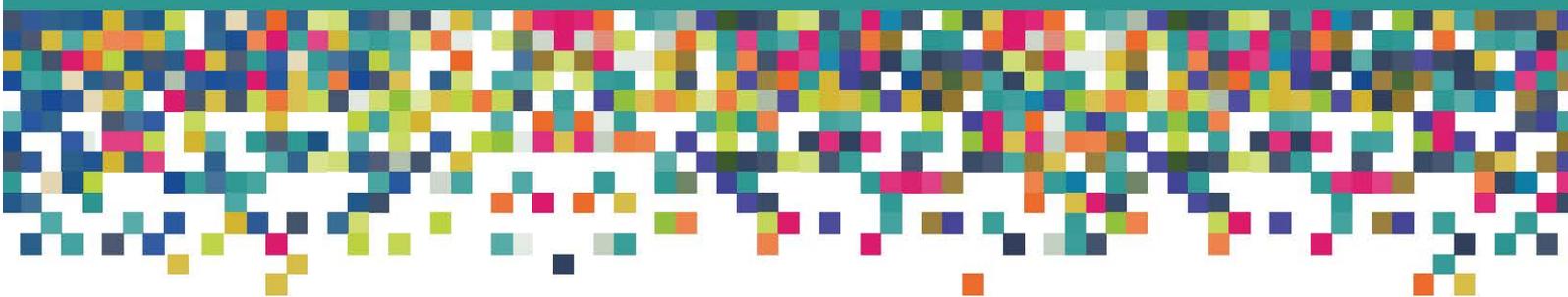




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## How many more Emoji do we need?

Examining the Unicode Consortium's Vision of World  
Standard of Emoji

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## **ABSTRACT**

*Emoji have been incorporated and appropriated by culture along with the emergence of digital communication. Behind how Emoji come into our everyday communication, only the Unicode Consortium (UC) has the power to design and redesign Emoji, therefore, to shape the fundamental concept of Emoji we have today. This paper aims to examine beyond the political, cultural, and moral tensions that appear in Emoji, and understand the very idea of the way Emoji are created. What does it mean for communicative Emoji characters to evolve within an institutional manner? That is, I summarise overlapping concerns of UC's motivation, vision, and mission towards the creation of Emoji to achieve the World Standard. To analyse this, this paper utilises Critical Discourse Analysis (CDA) to examine how language is deployed and operationalised to represent the mode of existence of Emoji on the UC's website. Discourse here is conceived as an institutionalised way of thinking which is to represent institutional attitudes, entities, and ideals. Theoretically, CDA provides the means to examine language in social life to raise awareness about the notion of Emoji. This allows this paper to explore how power differentials and social relationships have been associated with the concept of Emoji as a global digital global communication tool. Methodologically, Fairclough's approach to CDA is the analytical framework with its three dimensions including 1) descriptive analysis 2) interpretive analysis and 3) societal analysis. It led this paper to reveal how institutional discourse is operationalised by different perspectives of discourse including socio-technical relationality, bureaucracy, and rationality. In this paper, I claim that a new conceptualisation of Emoji is required to inform a culturally diverse digital society.*

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## INTRODUCTION

Emoji are digital pictograms (pictorial symbols) that are presented in a colourful illustrative form and used inline in the text (Unicode.org, 2021). Emoji have been available across the world on portable digital devices, such as computers and smartphones. Thus, Emoji are embedded in everyday 'digital communication' which refers to interpersonal communication that occurs through an interface and creates social networks (Amant and Kelsey, 2012). Despite this deep integration into everyday life, very little research has been conducted to dissect the role Emoji plays in our interpersonal communication and whether that meets their initially intended purpose. Who did make Emoji? How have Emoji evolved? Who decides what emojis will become?

Only one institution, the Unicode Consortium (UC) which is based in California, United States, can create, control, and own Emoji (Unicode, 2021). They enable people around the world to use multiple languages on any Information and Communication Technology (ICT), by providing freely available encodings, known as the Unicode Standard. Unicode Standard is for the representation of text for computer processing (Unicode, 2021). This means that, on a laptop, smartphone and server, every keystroke, font, character, language, and Emoji you use and see, are made available by UC's standardised technical system.

In the case of Emoji, the UC assigns a unique numerical value, Emoji Unicode Standard that can apply across different platforms and programs. Code is represented in the form of U+XXXX, where XXXX is a 4 to 6 hexadecimal digit (Unicode.org, 2021). For example, 😊 is assigned by U+1F60A in the computer system. In parallel, they also author Common Locale Data Repository (CLDR) to store short names for each Emoji such as "smiling face with smiling eyes". This allows interface users to determine what Emoji visually represent. While the visual representation of each Emoji has slight differences across the platforms and devices (Figure.1), UC maintains Emoji's stability by providing a single code and CLDR for each Emoji. Once numerical code and CLDR are assigned, they cannot be changed or removed (Unicode, 2021).

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In other words, UC has the complete authority to shape how Emoji visuals are designed and direct the way users perceive them through given labels.

No	Code	Browser	AppI	Goog	FB	Wind	Twtr	Joy	Sams	GMail	SB	DCM	KDDI	CLDR Short Name
12	<a href="#">U+1F60A</a>													smiling face with smiling eyes

Figure 1. Visual representation of Emoji (Unicode.org, 2021)

Consequently, UC plays key roles in 1) providing the single, universal character standard for all Emoji, 2) adapting to widespread implementation and usage and 3) building the Emoji characters' infrastructure on the internet and World Wide Web. Through these responsibilities, UC (Unicode.org, 2021) navigates that Emoji are in the process of achieving universal and global standardisations as a digital communication tool.

Within historical cultural context, communication with pictorial representation has played a role in human communication from the time of cave drawings, and many semiotic experts have made a direct connection between the use of Emoji to those of prehistoric humans (Giannoulis and Wilde, 2019; Sener and Atar, 2016; Danesi, 2016). However, to avoid waffling on about possible theories of the pure origin of language and its relationship with Emoji, the focus here is a historical reflection of digital pictorial representation. In the field of digital communication, pictorial representation began with an emotion icon, known as an emoticon, composed of punctuation marks, numbers, and letters to make a pictorial representation of a facial expression possible. The use of emoticons was furthered by Shigetaka Kurita for the Japanese telecommunication company NTT DoCoMo in 1999 with 176 Emoji in a form of colourful pixelated visual designs (Galloway, 2016). Emoji are composed of two Japanese terms: 'E' means picture and 'moji' means characters. The two characters combined to give the meaning of 'characters in the form of a picture'. Like emoticons, Emoji are invented to substitute body language, words, and facial expressions by reasserting human communication in the abstract digital space that would otherwise dehumanise monochrome text (Danesi, 2016).

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The global emergence of the use of ICT led to the further development of technical codification and concretisation that allowed Emoji to be used across devices, operating systems, and digital platforms, which is where the role of UC comes in. It was natural for UC to seek a way to standardise Emoji alongside the text-based language that they had already been inventing. In 2007, UC started to work on embedding Emoji in global computer language systems and they became the monopolised institution that can take control of Emoji in 2010 (Unicode.org, 2021). By 2020, Emoji set 13.0 had 3,521 Emoji and 2 billion emojis were sent to IOS daily (Emojipedia, 2020). From Emoticons to original Japanese Emoji to Unicode Emoji, there are much-expanded visual scopes (Figure.2).



Example of emoticons (Made by author, 2021)



2020 Emoji 13.0 Category of Smiley and people (Emojipedia, 2021)

Figure 2. The visual impression of the development of Emoji

Through this development, UC aims “to extend the structure for a more global internet, cultural adaptations, and applications interoperability, such as for mobile computing” (Unicode, 2021). Emoji have moved beyond Japanese culture and moved to revolutionise

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communication across the world, catalysing technical and social changes. Thus, it is important to recognise that Emoji have evolved internationally not just as independent development, but as an established and concretised body of technical architectural concepts that UC provides.

However, this claim, based on the near replication of Emoji visuals across various platforms, fails to recognise the cultural validity that has been introduced in their development towards World Standard. Despite the primacy of UC's power in designing Emoji, there is limited research that focuses on the intentions for their conceptualization of World Standard. Consequently, this research aims to unearth and critically examine UC's notion and vision of the globality of emoji. How does UC represent Emoji and what do audiences and users mean to the UC? This research holds social and technical significance because Emoji are ubiquitous to digital communication across culturally diverse users. Therefore, the research question for this study is to answer: **How does the Unicode Consortium deploy and operationalise language on their website to shape and conceptualise the world standard of Emoji?**

To answer this question, this paper will be structured as follows. First, the literature review is going to employ the theory of classification (Bowker and Star, 2008) which aims to define what UC means by developing 'standards' for Emoji. Then discussion focus will be on how social and technical standardisation influences UC's conceptualisation of Emoji. It will also look at the relationship of the terms between 'standard' and 'global' and understand what UC means by 'World Standard', 'Universal Standard', 'International Standard', and 'Global Standard' (Unicode, 2021). Finally, I will have an empirical investigation by applying critical discourse analysis to UC's website. It is designed to seek how UC contextualise World Standard to Emoji.

## LITERATURE REVIEW

### From Two Faces of Emoji to Global Emoji

Emoji have been discussed and conceptualised in various ways due to its social and technical relevance and communicative possibilities. Where researchers position themselves in the discussion can vary the way of describing Emoji. Thus, I acknowledge that what will be discussed in this paper cannot be absolute and it may not be applicable in several years time, as Emoji continue to evolve along with social and technical changes. Nonetheless, existing definitions and concepts of Emoji are too divergent to be useful in guiding the discussion of this paper – Are Emoji global? Therefore, it is important to overview and narrow down the scope of our definition of Emoji. The complexity of this full dialogue also furthers the claim of this paper that there is no true global standardisation of Emoji as the UC believes.

Emoji have two faces - U+1F60A and 😊. On one side, it is the technical face of Emoji, which is conceived as a digital object and resides in a technical system. A dialogue around the use of Emoji which focuses on this technical side, describes Emoji and its use, which are correlated with the advancement of communications technology. Widespread use of platforms, interactive technology and data networks have provided the affordance necessary for Emoji to evolve on a global scale. In contrast, if one focuses on the semiotic side of Emoji, it is conceived as a symbolic visual representation that reflects the experiences of everyday life, which can convey emotions and sentiments in social messaging. Such a definition describes Emoji as correlating with global social movements and needs.

These two aspects support the definition of Emoji in this research which is primarily based on how UC describes Emoji – emojis are global digital communication characters. Emoji are representing things in our life and mind (Unicode, 2021). The substantive literature generally assumes Emoji as a ubiquitous, digital, and global phenomenon aligning with UC. For example, Philip Seargeant (2019) describes Emoji as “a simplified form of global communication” that provides the example of ingenuity and creativity at the heart of human interaction in the digital age. Similarly, Marcel Danesi (2016) indicates how Emoji literacy and

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writing evolved as a “global commons”. He also argues that Emoji may just be a passing fad, associated with new technology and trends in popular culture. Both Seargeant (2019) and Danesi (2016) describe Emoji as the ever-expanding storehouse of international design set in the standardised technical system.

It seems reasonable to use the concept provided by UC, as it is the institution overseeing providing Emoji. However, what does it mean for Emoji to be “a simplified global communication” (Seargent, 2019) and “global common” (Danesi, 2016)? The term “global” seems to be predefined, regardless of the authority of UC and the power it has over its relationships with others that may significantly affect its meaning. In other words, adjectives to describe Emoji such as worldwide, universal, international, cross-cultural, and global, leave me sceptical that there is a significant oversimplification in their perspectives.

To break down the abstract nature of Emoji and critically analysis the notion of ‘World Standard’, the following section begins by outlining the standard, which is conceived as a process (Bowker and Star, 2016). Since both technical and social faces are assumed to lead Emoji to be global, the discussion will be categorised into 1) technical standardisation, 2) social standardisation and 3) how previous studies embrace technological and social views. Focusing on technical and social standardisation individually, allows for the examination of the factors and impact of how Emoji are conceived as a World Standard in a different way. The relational aspect of technical and social standardisation will discuss how technical and social standardisation resonates and/or collide to conceptualise Emoji and summarise the overlapping concerns of what can and cannot be globally standardised in the concept of Emoji.

## What is Standard?

The book: “Sorting Things Out” by Geoffrey Bowker and Susan Leigh Star (2008) looks at the intersections of sociology of knowledge, technology, history, and information science. It discusses the ever-remaining struggles of the negotiation between them in the classification. Much of the argument describes the notion of classification as a process that refers to having a routine and endemic feature of social practice. They argue that such a process becomes

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'standard' because its scheme is repeated, patterned, evolved, historically fixed, and stated. While there is much to admire in their discussions, it is also difficult to review as they contribute to a wider and more complex set of issues around classification and standardisation. They failed to clearly represent 'how to sort things out' when a standard is not inadequate to support and guide the social system.

For example, they (2008) use the example of the International Classification of Diseases (ICD). One would think a set of diseases should be straightforward to recognise and be given treatments. It is expected to be guided by standard formats, prescriptions and objects. However, they also lead us with questions about an overlooked process of classification system - how, when and why standard can be classified as standard? For the case of tuberculosis, contrasting the doctors' struggle to decide what sort of tuberculosis it was and therefore what treatment to give, what prognosis was likely, with the experience of the patients as inmates in a sanatorium. This led to questions about the localisation of standards. People may find incompatibilities of standards in a certain geographical, democratic, economic, political, and technical setting. Along with unstable conditions which influence the stability of the standard, the standard also suggests how knowledge of the past is revised through the lens of the present.

Such dynamics of standard resonate with the situation where Emoji are taken for granted as a global digital communication tool, yet it fails to recognise whether it is embracing World Standard. The notion of 'World Standard' coined by UC needs to be revised by thinking about what it means by being World Standard. In other words, Bower and Star's (2008) discussions bring key insight to the importance of the recognition of the complexity of the process behind forming standard, known as standardisation. They encourage this paper to understand critical views of standards – the classification to establish standards is not just being formed in a top-down manner but rather it is a network of negotiation.

Consequently, this paper conceived a 'standard' as an idealised notion that connects and disconnects domains of experience, an activity that is shaped by unconscious and unnoticed

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power differences. What is classified as standard, struggles with ever-evolving political, economic, cultural, ethical, and historical significances, lacks variation, and occasional stretches. Furthermore, the complexity of a standard also describes its relationships, forms a community of practice, and therefore signals 'membership' within that community - who can and cannot relate to the standard.

These understandings of standardisation are critical to the dialogue around Emoji, as this paper seeks to dissect the meaning behind 'world standard of Emoji' and how UC negotiates different actors such as political, economic, cultural, ethical, significations to standardise its existence. In other words, thinking about the complex process of standardisation opens an array to focus on the things that would ordinarily be invisible in the production of categories and categorical relationships around Emoji.

### Technical Standardisation

In the context of technology, the term standardisation is described with tools to acquire and maintain to hold uniform dependability (Ray, 1968). Similarly, UC states the role of stability policies regarding the various standards, registries, and repositories "for developing and maintaining" (Unicode.org, 2021). As Seargeant (2019) argues, Unicode Standard makes Emoji different from any other type of language system because Emoji require technical adaptation, and they are always embedded in the technical system. Therefore, Emoji must be acquired, maintained, and developed as a digital being. In addition, Andrew Feenburg (2008) argues technical disciplines are constituted around devices, and they are essentially functional and efficiency-oriented. This also resonates with how UC aims to provide compatibility across cross-cultural digital communication. For example, the Unicode Standard prevents garbled characters that result from the text being encoded and decoded using an incompatible system. Technical standardisation is core to the shaping of what we can see as an Emoji through an interface. This allows rational functions for users.

Consequently, the technical standard in Emoji is for rational and efficient control and it is about the functions of a technical system. Even if users do not see the real essence of technology

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(i.e., numerical form of Emoji), it is the digital object for living and it is an institutional goal (Feenburg, 2008). However, it is important to recognise that UC's role in circulating and enhancing the use of Emoji and widespread adoption, also demonstrates UC's form of control. UC's position of developing and maintaining Emoji as well as its functionality and efficiency is stable as Unicode Standard is a 'monopolised technical form' of Emoji. Unicode Standard holds international uniform dependability. The decisions made by those involved in Unicode have a potentially permanent effect on character availability and display on the Internet. In other words, UC's dominant and permanent role of technical creation of Emoji means Emoji are internally developed and standardised.

With this in mind, subjective associations cannot be detached as Emoji are a profound tool of communication, and the power dynamics are circulated within the decision making processes at the UC's encoding process. This perception follows how Emoji are conceived as human-centred technology which refers to technology involving experiential dimensions (Tigwell, Gorman *et al.*, 2020, Miltner, 2020). The difficulties to discuss Emoji within technical standardisation bring back Bowker and Star's (2008) critiques of standards. Technical standardisation is for technical objects to operate. Emoji are digital objects, and Emoji hold technical materiality. Yet, technical standardisation in the context of Emoji is not without essential facility questions such as whether technical standards tend to erode, extend, and preserve monopoly power. As Feenburg (2008) argues, the discussion of questioning technology ends up as an ontological difference. Yet, whether we take Emoji as a codified digital being or social tool for communication, technical standardisation is not particularly useful to describe the 'global' mode of Emoji as it is a technical illusion to believe Emoji are an objects shared globally but rather a generalisation.

### Social Standardisation

While Emoji are not a language in the same way as national languages such as English and Japanese, Seargeant (2019: 5) argues that the development of Emoji resonates with the development of language which "mirrors the changes in how we relate to each other and

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organise our culture.” Language is closely associated with standardisation as the process by which conventional forms of a language are established and maintained. In the long history of linguistics, Thomas Sprat (2009) argues that one of the key social aims of understanding, writing, learning, and developing language is to return to a primitive purity and shortness. This suggests communication would be much more accurate and direct if everyone carried about them the set of things they need to talk about. Language needs to be transformed into a reliable catalogue so that there would be no vagueness and confusion in the way people interpret each other. Following this, the similarity between language and Emoji is that users within a social setting need to collectively understand the Emoji’s intended meaning to allow for proper communication, as they would phrase in a shared language.

Such a relationship between language and Emoji also resonates with Saussurean semiotics (Saussure and Harris, 2016) which assert that the concept of language can be an impersonal and independent entity, through which its institution and coding restrict what we can express verbally and therefore cognitively. He divided the notion of sign into two components: 1) signifier - which is things that signify (i.e., Emoji visuals) and 2) signified, which means concepts that describe the signifier (i.e., what Emoji represents). Considering this theory, if one sends signifier: 🌻, the receiver signified it as the sun. The semiotic perspective of Emoji plays a significant role in conveying expression, ideas, sentiments, information and meaning like what spoken language can. Thus, similarly to language standardisation, the design set of Emoji is the catalogue and UC gives certain numerical code with a short name (i.e., CLDR) to establish the standard meaning of each Emoji.

Another similarity is a sense of emergence. Milroy and Milroy (1991) discuss standardisation in language as a process rather than an end-product. The process to become a standard form of language includes various stages: selection, diffusion, maintenance, codification, and prescription. Language has been standardised to communicate but it is evolving along with social changes. New terms and trends appear every year by reflecting an aspect of modern life that did not exist a few years ago, or did not have the same prevalence in culture as they do now. In the context of Emoji, there has been a spike in usages for 🏠👤🏠🏠🏠 in 2020,

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compared to previous years. This reflects the wave of Covid-19, a global health pandemic that changed our life throughout 2020. Twitter officially notes that "the impact of COVID-19 on our conversations and behaviour is evident in Emoji usage trends compared to previous years" (blogEmojipedia, 2020). It is important to be aware of each emoji may not be used in the way UC labels meaning. For example, 🛋️: Couch (Sofa) and 🏠: (house) has been used to represent stay-home.

How such Emoji trends arise and adapt contrasts from the technical standardisation, in which the enhancement and addition of new Emoji to the UC platform, follows a different and slower process. In addition, as Bowker and Star (2008) posed compatibility of a standard on a local level, there could be different cultural coding of the meaning of Emoji. Users may struggle to share Emoji across diverse demographical groups where the meanings associated with each Emoji lack consistency. In the social standardisation of Emoji, it is also not particularly helpful to describe Emoji as global. The standard meaning of Emoji requires further critical considerations and questions - whether social standards can ever meet what is called a world standard and what the rationality of self-defined international Unicode Standard even is.

### Previous critiques around UC's relational standardisation between society and technology

Extensive previous research pointed out the struggles in the understanding standard of Emoji. Jessie Daniels (2015) describes that in the relationship between technology, society, and standardisation in the context of global nature, the central concern is the colour blindness of the digital world. Lisa Nakamura (2008) also argues that digital communication is inflected strongly with the neoliberal discourse of colour-blindness and non-discrimination. In other words, they both discussed how the broader discourse of diversity and standards is being framed in contemporary digital culture.

Following this tendency, the socio-cultural and political dimensions of Emoji also have been a striking topic of discussion. Scholars' concerns of diversity and cultural underrepresentation in Emoji, emerged and focused as a research domain. For example, Garreth Tigwell and Benjamin Gorman *et al.*, (2020) argue technical standardisation encourages Emoji to be a shared

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global language by expanding varieties of cultural visuals and shared meaning. Yet, they also addressed increasing concerns about the tension between inclusion and exclusion. Users have also started to experience, filter, judge, evaluate and extract what has been underrepresented. The more UC added, the greater the gaps around what was still excluded became evident.

Similarly, Miriam E. Sweeney and Kelsea Whaley (2019) take skin-tone modifiers from Emoji set 7.0 as an example and argue it makes the world realise that Emoji had been and may still be technically white. It has driven the understanding of the technical standard's limited diversity, which has led to discussion expanding the representations of humans Emoji. Consequently, while UC has been and will continue to be hoping for a heterogeneous society as a positive future, the biggest challenge would be the positive attitude to make Emoji diverse, universal, and neutral would lead to something opposite from what UC hopes to achieve by expanding exclusion.

These scholars, however, missed the opportunity to recognise the institutional structure and gave more attention to visual gaps of the Emoji. Within consideration of UC's vision of making Emoji 'World Standard', Bethany Berrard (2018) critically discusses the operating system of UC – membership categories who have different weights to vote on which Emoji should be added or not in the design set. The weight of the vote is depending on how much the member pays. UC is an American company and 11 out of 15 sponsoring companies with full vote were coming from American companies (Unicode, 2021). This calls to question how an institution that is supposed to offer a global platform can maintain that role when its representative body is skewed by a single country. Similarly, Joel Dinerstein (2006) argues that the concept of technology that circulates within American culture operates as a “white mythology” where whiteness is often sidestepped, even though technologies themselves are directly implicated in the construction of social difference. Rasha Benjamin (2019) discusses both the affordances and material politics of digital platforms regularly foment the circulation of human inequalities. He argues that “the racist result of their designs is entirely exterior to the coding process, and racism becomes double—magnified and buried under layers of digital denial” (Benjamin, 2019: 11). UC has failed to fully theorise what it means to be a globally

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representative platform, and in a failed attempt at offering diversity through their newly added Emoji, instead further marginalised communities by institutionalising structures.

## Where does Emoji stand with standardisation now?

By reflecting on technical standardisation, social standardisation and previous studies, there is enhanced insight into the differences between de facto and promulgated standards.

Theoretical reflection acknowledges:

1) Numerical code is conceived as an objective standardised mode of Emoji. It operates internationally and makes the existence of Emoji possible. However, this is not enough of a reason to argue that technical standards make the world standardised. It is humans, not technology, that classify what is standard (Bowker and Star, 2008). In other words, taking technical elements as 'the standard' is potentially important for social standards.

2) Social standardisation suggests the importance of standardising Emoji to share mutual understanding. Emoji have semiotic features. However, social standardisation is not enough to define Emoji as global because standard meaning is potentially incompatible in a certain social, cultural, economic, and political setting.

3) Emoji seem far from being celebrated as a global digital object and shared global language that UC aims for.

## Developing research question

Problems of standardising Emoji remain vibrant and will arguably receive more attention not only as institutional computing becomes more complex but also with the development of semiotics, especially diversifying representation. The general need for studies demonstrates the attention towards the changing nature of technical and social standardisation in Emoji. Multidimensional aspects of Emoji challenge the distinction and interrelation among an invisible technical standard, a communicative social meaning, and a conventional institutional power.

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To cope with the dynamic environment around Emoji, UC has been and will continue to be hoping for a more heterogeneous society, which they embrace as a positive future. Yet, making Emoji global, introduces a sense of discrimination and bias. It becomes even more important to understand how UC as the single institution that can make Emoji alive defines and conceptualises the Emoji we have today. This encourages this research to examine how UC plays a role in shaping Emoji and what is the underlying power to negotiate standards and neutrality. How does UC's process provide the conditions and links for the achievement of universality? To understand UC's vision, mission, and goal of conceptualising Emoji as a global communication tool, this paper will conduct a practical investigation to answer the research question:

*How does the Unicode Consortium deploy and operationalise language on their website to shape and conceptualise the world standard of Emoji?*

## **METHOD**

This section builds on critical discourse analysis (CDA); the framework to study the relationship between language and power developed by Norman Fairclough. CDA is for revealing the capacity of language to constitute social reality (Fairclough, 2010). In the context of research, CDA will be applied to analyse UC's institutional communication. The key considerations here are: 1) the underlying definition of World Standard in a company like UC which has the singular power to conceptualise the Emoji we have today and 2) how UC mobilises the concept to try to gain legitimacy in the eyes of culturally diverse users. Therefore, by utilising Fairclough's CDA, the paper aims to gain an understanding of how discourse exerts power not only as texts but also as part of a wider set of socio-cultural and discursive practices.

The research results illustrate how the social construction of 'global' operates, by using a few social equality debates to build broad, homogeneous, categories of Emoji and reflects them to

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the UC's attitude, aims and goals. The analysis also focuses on the identification of different types of UC's institutional discourse. The tones of UC's corporate communication rely on 1) bureaucracy, 2) rationality, 3) socio-technical relationality, and 4) neutrality. Institutional discourse is interlocked and considered globally, picture diversity as an abstract concept that can as such be mobilised differently to create various forms of legitimacy for culturally diverse users.

## Critical discourse analysis

### Advantage

The chosen method for this research: CDA goes beyond traditional discourse analysis by not only seeking to describe language in use, but also to analyse, interpret, and explain the significance of the ideology, power relationship, structure of inequality and domination embedded in discourse (Fairclough, 1995). Fairclough (1995) argues how language is integral to maintaining a dominant position in a community and spreading a particular ideology. Following this, Reed (1998) argues discourse constitutes subject positions endorsing certain actors to speak authoritatively and legitimating their acts and increasing the likelihood that their texts will influence others, affecting outcomes. Therefore, discourse does not objectively account for what is represented and expressed in the form of text but also a broader social context of the way it is expressed and represented.

Utilising CDA to observe power dialectics through discourse is important in this research because UC is the single institution that can control Emoji thus conveying a fundamental view of Emoji as well as it has socially significant ideation to conceptualise Emoji. In other words, how UC utilises and operationalises language to shape meaning would solidify the ideology of Emoji. Having said that, the research rejects the use of quantitative methods such as content analysis (Allen, 2017), using evidence at surface-level, formulating hypotheses, and developing general conclusions and theory. The research needs to go beyond. CDA is not only the surface level but also underlying dynamics of socio-historical context such as technology, cultural trace, and institutional power. There are multi-layered analytical steps. By applying

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CDA to this research, it does not only contribute to revealing the communication strategies used by UC to maintain its institutional position which has appeared at the surface level. But it will also reveal social identities which influence UC's process of conceptualising Emoji but also UC creates in return.

## Challenge

There are different ways of conducting CDA and these involve a range of different and overlapping concepts (Wodak and Meyer, 2001). In other words, utilising CDA lacks methodological rigour. Teun A Van Dijk (1995: 18) argues "it is a strategy of manipulation, legitimation, the manufacture of consent, and other discursive ways to influence the mind of people in the interest of the powerful." Consequently, researchers in positions of power can be encouraged to disseminate discourses through society that serve their interests. This can be defined as research bias. However, Fairclough, Wodak and Meter and Van Dijk admit and accept the openness of CDA. Therefore, manipulative, and flexible features of CDA are not evidence of methodological weakness. CDA is a tool to seek disharmony and power differentials in society through analysing the language of use in social phenomena and how language use and social phenomena have or do not have a constitutive relationship. This also suggests that the problem is not about CDA rather a poor application of methodology. It is important to be clear about how empirical research is designed, not only to determine how much context is necessary for CDA but also to guide the scope of a CDA project and where the position of a researcher is.

## Research Design

### Data collection and measurement

This paper operationalises a three-dimensional framework for CDA introduced by Fairclough (1995), including 1) discourse as text, 2) discourse as a discursive practice, and 3) discourse as a social practice. Three dimensions will help to provide multiple layers of analytic entry by the following steps:

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1. The textual dimension will analyse how the meaning and form of linguistic elements represent the attitude and tones to constitute 'truth' about what Emoji are. By approaching discourse as text and focusing on its inter-textual dimension, the first foreground question is: what is made important as the concept and characteristic of Emoji?

2. The discursive dimension will analyse practice and composition of words that can change the audience view such as empathy, fact claims, and framing objectives and intertextual links. As such the associated foreground question is: how does the text approach topicalization, contextualisation and conceptualisation?

3. The societal dimension will seek norm, tradition, public ideologies, broader view of the situational context around the text. In other words, it allows appreciation of how the non-discursive exerts power. In turn, for orders of discourse to (re)produce subject positions, social relationships and systems of knowledge and belief that constitute the discursive practice around Emoji. Accordingly, the foreground question is: How do social practices provide the conditions of possibility for the emergence of global discourses in the mode of existence of Emoji?

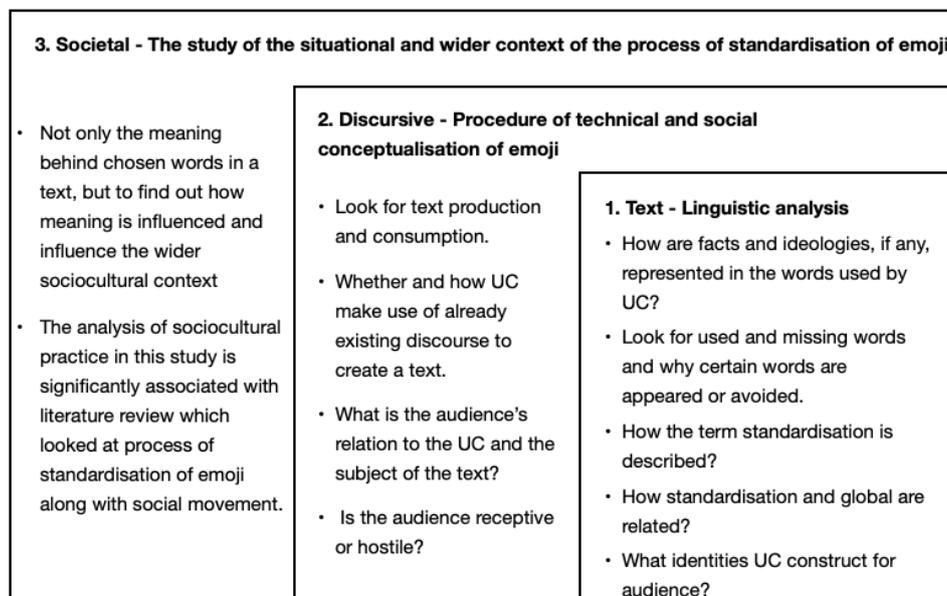


Figure 3. Graphical representation of Fairclough's analytical framework for CDA with associated questions (Fairclough, 1995)

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The data collection focuses on empirical material, text on the UC's website. Brügger (2017) discusses the difficulties of studying the web. A major challenge is finding 'where to put' information-seeking points. In selecting the sample, this paper employs the strategy of purposeful sampling introduced by Michael Patton (2002). Purposeful sampling selects "information-rich cases" related to the purpose of the inquiry of the research interests to "yield in-depth understanding rather than empirical generalisations" (Patton, 2002: 273). This objects to how Kasomo Daniel (2011) remarks that a large sample like resources on the web, makes the CDA's analytics task unmanageable rather than adding to analytic outcomes. In addition, as website challenge to information overload, random sampling is rejected as it may not contain valuable contextual data in a high volume of data like websites.

However, when we value Fairclough's process, he argues that "the data collection should be seen not as constituted once and for all before one starts the analysis, but as open to ongoing enhancement in response to questions which arise in analysis" (1995: 228). This seems to suggest how the 'flow' in the process of investigation is important. The selecting sample may increase the risk of losing other possible sources by ignoring flow (i.e., the hyperlink of information) and limiting the ways to answer the research question. To minimise this concern, I explored websites in advance by processing a pilot study which helps this research to test the validity of the methodology and sampling. This also helped this research to prevent sampling overload, improve the quality of 'selected' samples and negotiate with time constraints.

The selected samples (Unicode.org) are

### 1) Why Join Unicode

Promoting membership which allows participants to have a say in the developing process of Unicode Standard. This allows us to investigate who is expected to join UC as well as how UC defines and promotes their institutional value.

### 2) Technical report: Unicode Emoji

UC's primary detailed report of defining the Emoji characters, structures, sequences as well as their design guideline under the categories such as 'Name', 'Display', 'Gender', 'Diversity',

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'Colour', and 'Hair Components'. This gives insight into what categorical visual representation matters and why.

### 3) Guideline for Submitting Unicode Emoji Proposal

Introducing the process and requirements for submitting a proposal for new Emoji characters or Emoji sequences. This allows the research to know what is important in the design process.

### 4) Frequently Asked Question: Emoji and Pictograph:

UC's summarization of 'common' questions and answers regarding Emoji. Both questions and answers are listed by UC, thus the question is self-structured. However, as it is speaking to a third party, it shows the social relationship around Emoji as well as what kind of Emoji factors UC is expecting as a need of clarification.

### 5) Unicode Emoji Articles

UC's selection of news reports including English and Japanese, written by third parties regarding Emoji - what people outside of UC talk about Emoji. The list of articles and resources shows positive and negative discussions which have appeared around Emoji throughout history. This also represents what UC had recognised as issues.

### Research Ethics

The methodological framework and research objectives were approved by the researcher's supervisor through the ethics form which is under the ethical guidelines of the London School of Economics and Political Science. This research specifically considered the ethical challenges of using digital resources (i.e., information on UC's website) as a sample. As Grinyer (2007) argues, online research finds ethical challenges due to inconsistency about how researchers should conduct with or get approval to use digital resources. The research does not contain any personal and harmful information as it retrieves samples from publicly accessible website. However, this paper acknowledges the importance of ethical guidelines for conducting online research and takes the methodological process with respect.

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## Methodological Limitations and Reflexivity

As previously discussed, CDA acknowledges openness which introduces and accepts researcher bias. Fairclough (1995: 207) argues, the researcher must engage in “self-reflexivity” in interrogating their assumptions and positioning. Supriya Subramani (2019) argues that while there are diverse forms of reflexivity to identify, practice and adopt, key questions to project informed consent in the context of methodology are: who practices it, what the research is on and what the researcher’s agenda is. In other words, the researcher’s positionality and its influence on the research need to be clear. Reflexivity lies at the analytical inter-subjectivity, articulation and interpretation of CDA.

As a pillar of perspective, this paper critically looks at the term: standard and its globality given by UC. The literature review aided to sample and analysing materials from both technical and social perspectives and conceived World Standard which UC conceptualise as predefined and overlooked. This understanding acknowledges that I as a researcher include myself in the analysis of discourse to reveal how I also contribute to and am caught up in the discourses that reinforce my dominant norms. Such prior knowledge has the risk of projecting the emergence of self. Therefore, the selected samples and position of a researcher cannot be considered representative.

However, CDA is inherently interactional and this is the reason why reflexive awareness plays a key role in the mitigating sense of self. While the researcher’s position may miss the important way in which institutional discourses are contextualised, strengthened, critiqued or disrupted in the communication, the researcher's position is important to answer the research question by conducting from the position which is not directly involved in institutional communication but as one of the audiences of the website ‘to understand Emoji.’ This potentially develops alternative discourse from UC’s institutional discourse. Presenting reflexivity manifest the consistency between a priori assumed theoretical foundations established through literature review, the conceptual understanding of CDA and the practical research which can be best ensured by making holistic use of theory in empirical research.

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To promote greater reflexivity in my part, this paper follows the conceptual framework in established theory by Fairclough (1995) and makes its utmost methodological decisions. The method follows pre-made support questions (Appendix 4). Through confirming and disconfirming interpretation of a text, the observed text is systematically framed with CDA's three-tiered model which is in the form of embedding boxes (Appendix 2).

## RESULTS AND INTERPRETATION: INSTITUTIONAL DISCOURSE TYPES

Drawing on Fairclough's analytical framework of CDA: discourse as 1) text, 2) discursive practice and 3) sociocultural practice, this section provides an overview of the dynamics of discourse in texts about Emoji within the UC website. The analysis examines the validity of technical and social standardisation as a process of constructing Emoji and sought underlying power in the way in which UC positions Emoji in the global mode. While Emoji were constructed in multifarious ways, Emoji would be summarised through inter-textual linkages with the orders of discourse of 1) bureaucracy, 2) rationality and 3) socio-technical relationality.

Each discourse type exerted power by providing a distinct ideology to produce 'truth' about Emoji and therefore confirming distinct possibilities of UC to shape the Emoji we have today. I collectively define three discourse types of Emoji as institutional discourse as they all project institutional attitudes, entities, and ideals to the audience of the website. Institutional discourse leads Emoji to be designed diversely and inclusively. New findings from the method are that UC believes diversity and inclusion have significant implication for making Emoji and their institutional position 'neutral'. Based on the overview (Figure 4), the following sections explained each observed different types of institutional discourse as well as how UC links and values between diversity, globality and neutrality.

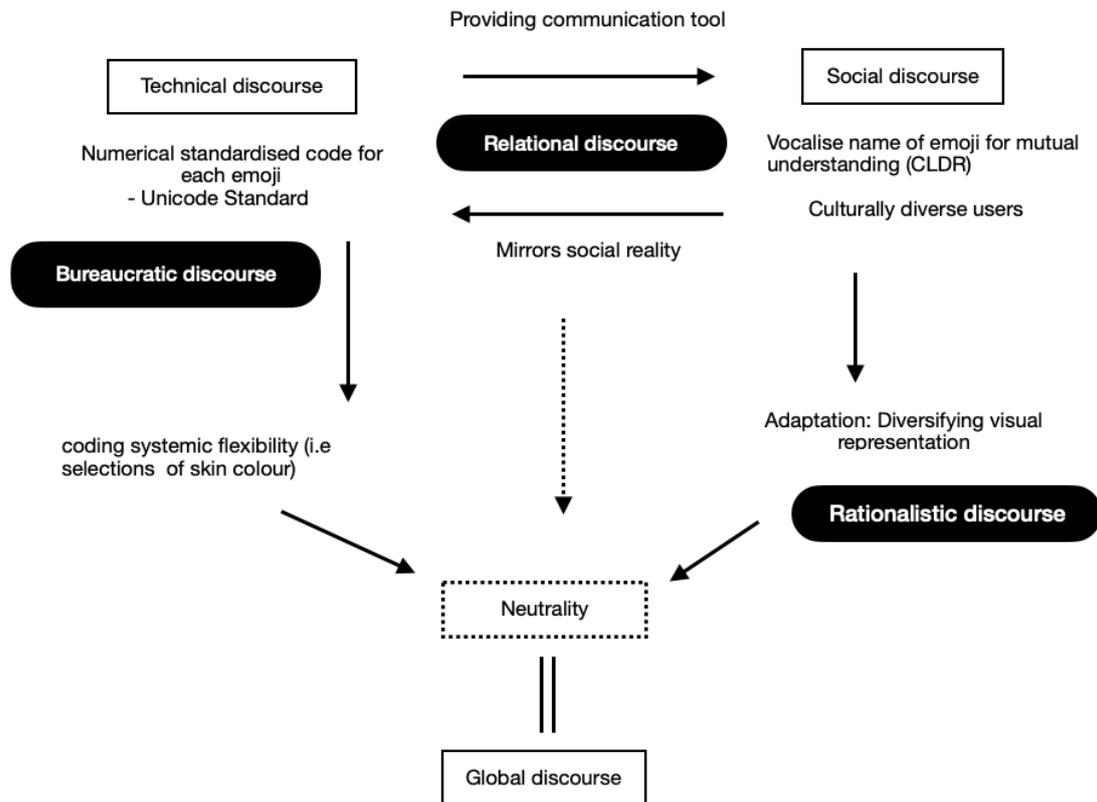


Figure 4. Overview of UC's institutional discourse

## Technical Discourse and Bureaucratic Discourse

First, technical texts (i.e., encodings) evaluated Emoji with lexical items such as “guidelines”, “background”, “compatibility”, “application”, “interchange”, “correspond” and “interoperability”. They are crucial for exchanging information in the system and delivering context to users through an interface. These roles of the numerical form of Emoji were then narrated into “independent specification”, “common practice”, “conformance” and “economic benefits”. These address three crucial aspects of technical discourse.

1) Technical discourse shows historical reflection and power. Unicode Standard was embedded into the technical system as an foundational concept when the world wide web was invented. Therefore, as Fairclough (1995) argues, power appears in the formation of discourse within a specific historical context. The technical system of Emoji is composed of the notions of history and power which digital worlds build as a web language.

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The emoji turned out to be quite popular in Japan, but each mobile phone carrier developed different (but partially overlapping) sets, and each mobile phone vendor used their own text encoding extensions, which were incompatible with one another. The vendors developed cross-mapping tables to allow limited interchange of emoji characters with phones from other vendors, including email. Characters from other platforms that could not be displayed were represented with ☐ (U+3013 GETA MARK), but it was all too easy for the characters to get corrupted or dropped.

There are, however, many problems with a private-use approach, and thus a proposal was made to the Unicode Consortium to expand the scope of symbols to encompass emoji. This proposal was approved in May 2007, leading to the formation of a symbols subcommittee, and in August 2007 the technical committee agreed to support the encoding of emoji in Unicode based on a set of principles developed by the subcommittee. The following are a few of the documents tracking the progression of Unicode emoji characters.

text    discursive    social    technical    power

Figure 5. Example text from Sample 2 (Appendix.1)

Text example (Figure 5) shows the origin of Japanese Emoji which is often not able to be displayed due to the limited interchange of Emoji characters with phones from other vendors. By indicating historical struggles and the emergence of Emoji, UC receives institutional power by leading this technology standard.

2) UC narrates the Unicode standard as World Standard and contextualises economic implications since Emoji are evolved as a “single” “universal” technical code. In sample 1 (Figure 6), when UC persuades more companies (i.e., the audience of UC's web) to join the committee to have a say in Emoji design, it frequently mentions the “benefits” and “advantages” of being a member. Such promotional discourse involved economic benefits such as “your technical stability” and “your global market reach”. UC links such phenomena to the “internationalisation” and “globalisation” of technology. Because of the benefits UC provides, UC defines membership fees as “your modest investment”. This also tells that the audience was IT companies. Participating in the design of the Unicode standard assumes to bring favour to sponsoring companies as it would mean leading the convenient design for their technical system and subsequently bring “customer” and “global reach”.

The Unicode Standard is intimately connected with software internationalization and globalization, with member companies being considered experts. Membership in the Unicode Consortium makes a strong statement to your customers that your products and business will be able to accommodate their requirements when they are ready to expand globally.

text    discursive    social    technical    power

Figure 6. Example text from Sample 1 (Appendix.1)

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3) Unicode is inscribed in numerical rules and thus is less malleable, which demonstrates one of the many ways it is institutionalised. This emphasises how Emoji are constructed by referring to the formal institutional rules and procedures to manage the appearance of Emoji through an interface. Consequently, the discourse was bureaucratic. In addition, UC institutionalised their power to shape the future of the Emoji system. The previous study of Emoji with technical aspects also suggested technical disciplines: functionality and efficiency that are for human disciplines. From the analysis, the study also finds that the economic benefit is one step behind how Emoji are designed. Consequently, as Feenburg (2008) argues, the essence of technology is omitted by a generalisation of their roles in the particular social setting and follows democratic rationalisation.

The key finding here is that, even though CDA is predominantly designed for analysing conventional non-electronic text, there are further analytical potentials of CDA in the way in which technical text holds more than just numerical code. The numerical form of Emoji is associated with the technical history, power, quality, stability, monopoly, interactivity, and multimodality. The gap between the objective technical source and its thematic focus of the disciplines also gave new directions for the research to understand the power behind computer-mediated discourse.

### Social Discourse and Rationalistic Discourse

The technical form of Emoji is sometimes treated as invisible due to its semiotic presence, thus social discourse is often more presented on UC's website. As previously discussed, the social standardisation of Emoji aims to bring mutual understanding in the communication on a global scale and UC diversifies the visual representation of Emoji to achieve this. Throughout samples, the lexical items 'diversity', 'identity', 'neutral', 'global', 'international' and 'universal' were discursively articulated in many instances of the Emoji design set where UC has an active role in conveying and labelling standardised meanings of Emoji. UC relied on textual constructions, interrogating the possibility of diversifying visual representation in the

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production system, and requiring manipulability of the technical system. Thus, in the social context, the manipulable system and diversity are at the heart of the report.

## 2.4 Diversity

People all over the world want to have emoji that reflect more human diversity, especially for skin tone. The Unicode emoji characters for people and body parts are intended to be generic and shown with a generic (nonhuman) appearance, such as a yellow/orange color similar to that used for smiley faces.

Five symbol modifier characters that provide for a range of skin tones for human emoji were released in Unicode Version 8.0 (mid-2015). These characters are based on the six tones of the Fitzpatrick scale, a recognized standard for dermatology (there are many examples of this scale online such as FitzpatrickSkinType.pdf<sup>12</sup>). The exact shades may vary between implementations.

text    discursive    social    technical    power

Figure 7. Example text from Sample 2 (Appendix.1)

“People all over the world want diversity in Emoji” (Figure.7). UC placed users in a position of power, as they encourage increased diversity in the representation of Emoji. Similarly, samples 4 and 5, showed how UC accepts concerns from the external environment and responds to the situation. UC positioned itself to have the same view as people who desire to have wider scope in visual representation. In other words, the audience of the website is expected to be receptive to UC’s view. This intentionally links with how Emoji are made for “people all over the world” to conceptualise World Standard of Emoji by emphasising ‘inclusivity.’

However, it is fair to question UC’s position because they omitted their definition for “everyone”. To what extent does UC consider the opinions of its users? If it is for ‘everyone’ and it is what “people all around the world want”, how does UC balance the potentially conflicted perspectives of its culturally diverse users? What kind of institutional and ideological conditions does cater to “everyone” create?

Focusing on social discourse allows this paper to discover:

1) The addition of diverse Emoji representation and UC's culturally neutral positions were generally portrayed as the imposition of systems of accountability on the company by powerful actors. It is not just about UC but also about politics, media, and people’s influence on UC’s institutional operation that led it to move towards diversity. These changes were accompanied by the formal regulations concerning interpersonal behaviour – e.g., the anti-

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discrimination clause in the bylaws. In this manner, Emoji mirror social reality as Seargeant argued (2019).

2) UC's management of diversity appeared in many instances of technical and social Emoji standardisation, where culturally diverse users are presented as having an active role in leading Emoji to be global. Even though UC has attempted to present itself as an institution that is considerate of its users' feedback on inclusivity, it is still ultimately UC's decision what to add and represent as Emoji. In an attempt to make Emoji more global, they discursively adjusted the definition of diversity to UC's advantage by occasionally referring to alternative meanings of diversity that rest on other orders of discourse, such as bureaucracy.

Consequently, on the one hand, in the process of standardising the Emoji design set, Emoji are subjected to UC's hierarchies and the arduous institutional structure to create Unicode standards. On the other hand, UC stands with its self-claimed global audience and is encouraged to participate in social, economic, and political concerns on a global stage.

## Global discourse and Neutrality – The Judgement UC Makes

Undiscovered, thus a new aspect in the abstract concept of emoji was how UC's push for neutrality is the direct result of their mission to make Emoji diverse and global. In other words, UC narrates that making Emoji neutral will contribute to achieving the World Standard of Emoji.

In an example text from sample 2, a gender-neutral emoji is discussed in the context of human forms, representing professions. UC states (Figure 8) that gender neutrality is introduced when 'gender is unknown', 'gender is inclusive' and 'gender is unspecified'.

### 2.3.1 Gender-Neutral Emoji

It is often the case that gender is unknown or irrelevant, as in the usage "Is there a doctor on the plane?" or a gendered appearance may not be desired. Such cases are known as "gender-neutral," "gender-inclusive," "unspecified-gender," or many other terms. Except for the emoji shown in the table [Emoji With Explicit Gender Appearance](#), human-form emoji should normally be depicted in a gender-neutral way unless gender appearance is explicitly specified using an emoji ZWJ sequence in one of the ways shown in the following table.

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Figure 8. Example text from Sample.2 (Appendix 1)

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In addition, a few articles from sample 5 showed that the Emoji design set is previously seen to have an obvious gender bias, which was demonstrated by the availability of a male police officer Emoji but not a female police officer. As Emoji involve visual representation, gender appearance cannot be unknown or unspecified in the way UC described neutrality by verbal language: “Is there a doctor on the place?” (Figure.8). To achieve neutrality, UC has made gender a technical input rather than having a default setting of gender appearance. From this development, UC discursively presents that Emoji have gender neutrality and diversity. This also reflects discussions by Nakamura (2008) and Benjamin (2019) – digital technology is inflected strongly with the neoliberal discourse of colour-blindness and non-discrimination.

While UC expands the variety of visual representations of Emoji, it is also interesting to find that UC is introducing a “non-realistic” and “unrelatable” representation of identity such as bright yellow skin tone in addition to the five shades of human skin tones (Figure.9). This is also the way of an attempt from the UC to expand neutrality. By reflecting Figure.8, it is perceived as “unspecified.”

When a **human emoji** is not *immediately* followed by a **emoji modifier** character, it **should use a generic, non-realistic skin tone**, such as **RGB #FFCC22** (one of the colors typically used for the smiley faces).

**No particular hair color** is required, however, **dark hair is generally regarded as more neutral** because **black or dark brown hair is widespread among people of every skin tone**. This does not apply to emoji that **already have an explicit hair color** such as PERSON WITH BLOND HAIR (originally added for **compatibility** with Japanese mobile phone emoji), which needs to **have blond hair regardless of skin tone**.

text      discursive      social      technical      power

Figure 9. Example text from Sample 2 (Appendix 1)

However, such an attempt also questions its relation to diversity. Can ignoring differences and adding unrealistic skin tones to 5 skin tones achieve neutrality and diversity? Who and when do people choose the unrealistic skin tone? Figure 9 also admits the power differentials in discussing neutrality – “dark hair is generally regarded as more neutral”. Majorities overrule minorities in an attempt to establish commonness and make it a standard. This reflects how Bowker and Star (2008) discuss a critical aspect of the standard. There is an ongoing process of classification which belongs to a certain social setting. While UC states they do not follow

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what is known as commonness, neutrality UC makes with 'unknown' identities and expressing majority from UC's view, is at the odds with inclusion. Omitting different representations of identity does not embrace how UC achieves neutrality but rather makes it silent. Playing it safe just to accommodate pressures from the external environment, acknowledges the difficulties of negotiations between what UC wants to achieve and what others (i.e., "people around the world" and "everyone") expect UC to achieve.

The selection of words and descriptions does matter to make the audience receptive, however, what neutrality and globality mean to UC matter even more. Figures 8 and 9 showed different ways of defining neutrality - 1) introducing inclusivity and 2) introducing unspecificity. While the former seems their primal process to make Emoji global, the more emojis have been introduced, the more gaps are introduced. This then brings the latter - if inclusivity cannot be achieved, making options for unspecified visual representation. From such contradictions, neither adding variation nor making Emoji unknown and unspecified cannot achieve neutrality and diversity. UC's process of designing Emoji is intermittent and conflicted. This raises ultimate questions to the mission and vision UC wants to achieve to make Emoji World Standard. Do Emoji need to represent human characters? Do we speak with Emoji in the way in which original pictograms were evolved as adding expression to the text or do Emoji speak for users?

### Summary of Discourse - Relational Discourse and Global Discourse

UC structures and positions itself as maintaining technical stability, monitoring the social composition of the design of Emoji, reporting their action towards diversity, and formal procedures to deal with concerns. While different aspects in UC's language operation in contextualising Emoji are acknowledged individually, they are mutually aimed at shaping Emoji as global and neutral. The technical and social faces of Emoji were portrayed as naturally harmonious. Such relational discourse is narrated as ethical, accountable, visible, and responsible to maintain UC's institutional position and values. In other words, the most frequent constructions of language in UC's website is relationality between ever-evolving

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technical and social dynamics. This also resonates with how the literature review conceived standardisation as a process and negotiation.

Furthermore, UC expects Emoji to be put into practice simultaneously as the infrastructure of multiple communities. Standardised technical functionality and social intentions are either linked together or linked as part of an unfolding series. Therefore, diversity in the context of Emoji, exerts power through its interlocking with social standardisation as in how Daniels (2015) argues that central social expectations and tensions in the context of digital culture are making the society heterogeneous in the way in which ICT expands the opportunity of global communication. CDA revealed the expectation behind relational discourse - how UC exerts power by constituting specific subjectivities through inscription in an ideology of discrete and apprehensible Emoji which are reflected in social identities.

While UC discursively portrayed the technical and social face of Emoji as harmoniously creating Emoji global and neutral, the central insight of CDA also revealed that the link between technology and society does not describe Emoji as a 'World Standard'. UC uses technological constraints as a scapegoat for making adjustments to their institutional value. While UC's self-serving process of redefining diversity based on convenience, coupled with the change in UC's approach to meeting this standard, has led to an inconsistent and unreachable institutional ideology. Correspondingly, The formulation of institutional ideology brings back Feenberg's (2008) analytical struggles in defining the roles of technology in society. Culturally diverse users are human perceivers who assign experience to one and the process to the other to share Emoji. However, the interface where Emoji get represented cuts across these distinctions, assigning the role of filtering, judging, evaluating, and extracting to both human and machine, asking both to make approximate judgements that are verified in the society of human operations and machines processing Emoji's meaning in recursive series in each individual way. Reflecting Bowker and Star's (2008) discussion of the classification and the standard in large infrastructure like medical classification, Emoji also need to develop to serve the conflicting needs of multiple local, national and international systems.

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Consequently, while Emoji are for use for ‘people around the world’ and UC is diversifying and neutralising visual representation, such practices do not prove the way to be a ‘World Standard’ but rather shows challenges to be global as well as pressure from surroundings to globalise. Emoji designing struggles in conflicting directions as it attempts to realise its vision for an inclusive platform. UC teeters between offering additional features to be more representative of its users’ identity and then switches its approach by objectifying visuals with unrealistic and inhuman representations that can play into the ‘commonness’ between peoples. While the meaning of diversity is never the monopoly of UC in formal positions of authority, it is warranting their voice as dominant institutional discourse. The complex power differentials prove that the redefinition process of the diversity and neutrality UC aspires towards also caused additional negative consequences.

Both theoretical and methodological perspectives of Emoji highlight the multiple meanings of diversity and neutrality. They aim to radically de-centralise and de-emphasise the biased notion and representation of Emoji. They are constituted through its relationship with culturally diverse users, whose social practices shape the discursive possibilities for certain texts of diversity to emerge, and whose discursive representations rely on the abstract notion of diversity in favour of the way UC want to represent themselves. In return, the meaning of Emoji is continuously challenged and/or (re)produced by drawing on multiple orders of discourse.

## **THE FUTURE OF EMOJI**

The senses of world, international, universal, neutral and diversity were narrated in the way in which they naturalise social reality diffusely, and inform and legitimise Emoji as social and economic input. In doing so, UC is constantly showing the future prospects to promise their responsibility in long term. UC’s institutional discourse was, therefore, future-oriented. This was also narrated by how UC frequently used the term “ongoing” and described their

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continuous changes along with the ever-evolving technology and culture. Since UC is still in the process to make Emoji neutral, diverse, and global, future research needs to focus on:

1) a model of memberships, naturalisations, and the work UC does in managing and designing diversity. Developing communication tools in a top-down manner needs future analysis of categorical work, and how they emerge under different circumstances.

2) whether the meaning of Emoji is conceived in the same way across culturally diverse users. It may also require categorisation such as what countries and cultures were represented in the form of Emoji. This brings insight into the reality and level of inclusivity rather than UC's intention of making Emoji neutral and diverse.

3) the discursive representations of the 'self' and the 'other' in the global context. The deeper insight into the gap caused by technical and social relations can be grasped by the contested nature of privileged ones. In other words, it would be interesting to investigate the ongoing discursive struggles surrounding diversity, including the discursive practices of actors speaking from less privileged position who is defined as "people all around the world" by UC. What they are expecting Emoji to become. This may inspire what it means to be a global digital communication tool.

Lastly, although this research had a valuable insight into how UC constitutes the definition and concept of Emoji, it was not without limitation. As Brügger (2017) mentioned, part of the difficulty is that, in studying the website, we cannot find an answer and resolve it in a short space. There is more to examine to understand Emoji. Discriminating criteria helped this research to choose relevant resources while it may be able to cope further by following complex hyperlinked pages in the chosen samples.

## CONCLUSION

Drawing on Fairclough's critical discourse analysis to UC's website, this paper examined how UC as the only institution that can provide Emoji envisioned World Standard and contextualised the various, sometimes overlapping concepts and definitions of Emoji. By focusing on the distinct two faces of Emoji - technical face: U+1F60A and social face: 😊, the paper critically explored and discovered different angles of the notion of standard. Aligning with Bowker and Star (2008), this paper conceived 'standard' as the idealised process which connects and disconnects domains of experience and activity that are shaped by unconscious and unnoticed power differences. Following this, CDA led this paper, not only seeking the conceptualisation of World Standard but also revealing how UC has struggled with ever-evolving technological, political, economic, social, ethical, and historical significances.

UC's production practice of Emoji to achieve the World Standard was conditional on the emergence of multiple discourses. This paper identifies technical discourse as bureaucratic discourse and social discourse as rationalistic discourse. This means that UC does not only construct World Standard to conceptualise Emoji as a global digital communication tool but also deploy it as a symbolic nature to reaffirm UC's institutional position. The technical discourse of Emoji is constituted around the numerical form of Emoji for functionality and efficiency. This lay stress upon irreplaceable technical standard. Thus, World Standard encourages the monopolised production and global diffusion of Emoji. Following this, UC also introduces social discourse which aims to evolve Emoji across cultures, devices, and time. Emojis are communicative characters similar to language.

The key takeaway from the technical and social narratives in institutional discourse was UC's global vision. All narratives were directed towards neutrality and diversity which are the direct result of UC's mission to make Emoji World Standard. However, a single standardised technical code for Emoji also sheds light on that there is a limitation in the visualisation of culturally diverse languages.

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What does this mean to us? For the audience of UC's website, called 'people around the world', diversity and neutrality were contextualised into Emoji as if it holds the capacity not only to facilitate intercultural dialogue and collaboration but also to further the cause of social justice by providing Emoji to everyone. Nonetheless, CDA showed Emoji are dominated by certain conceptual, cultural, economic, and political alternatives. While UC discursively narrates diversity and neutrality in Emoji's visuals, Emoji have not yet been neutral and diverse.

The conceptualisations of Emoji remains open-ended. Digital pictogram existed historically, exists today as Emoji, and may exist in UC's global future. Nonetheless, the latest approach of UC's standardisation approach is posed to realise that the more emojis involve human identities, the more exclusion they have caused. Global status becomes less when UC expands and diversifies the visual representation of Emoji. It is hard to believe that increasing and expanding Emoji and/or introducing unrealistic human forms of Emoji will be a solution to the representational gap.

The future of Emoji may come to see the good old days – when Emoji were simply the intonations and expressions for text-based communication rather than Emoji symbolising our identities. The study concludes as the realisation to the extant critiques around the over-celebration and generalisation of Emoji developing towards World Standard, Universal Standard, International Standard, and Global Standard. UC's operationalisation of language on the website showed how the power dynamics of diversity cannot be adequately conceptualised without attending to technical and social discursive and non-discursive practices. Emoji have indeed been a digital communication tool on a global scale thanks to the Unicode Standard. The use of Emoji continues to enrich communication. Yet, UC is required to take a step back from leading the direction to develop Emoji to speak for you and represent your identity. How many more Emoji does UC need to make if the UC's vision remains neutral and diverse?

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# How many more Emoji do we need?

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## APPENDICES

### Appendix 1: Retrieved Samples

Sample 1: Unicode.org. (2021) *Why Join Unicode*, URL: <[https://www.unicode.org/consortium/why\\_join.html](https://www.unicode.org/consortium/why_join.html)> [Last consulted 2 March 2021].

Sample 2: Unicode.org. (2021) *UTS #51: Unicode Emoji*, URL: <<https://unicode.org/reports/tr51/>> [Last consulted 2 March 2021].

Sample 3: Unicode.org. (2021) *Guidelines for Submitting Unicode® Emoji Proposals*, URL: <<https://unicode.org/emoji/proposals.html>> [Last consulted 2 March 2021].

Sample 4: Unicode.org. (2021) *FAQ - Emoji & Pictographs.*, URL: <[https://unicode.org/faq/emoji\\_dingbats.html](https://unicode.org/faq/emoji_dingbats.html)> [Last consulted 2 March 2021].

Sample 5: Unicode.org. (2021) *Unicode Emoji Articles*, URL : <<https://unicode.org/press/emoji.html>> [Last consulted 2 March 2021].

### Appendix 2: The Application of Analytical Framework of CDA by Fairclough (Sample 1)

#### Dimension 1: Textual

- Written communication
- Word
- Attitude
- Make the audience feel taking a part of how Emoji is contested
- Promoting

#### Dimension 2: Discursive

- Composition of words change audience view
- Structural change

#### Dimension 3: Social

- Social relationship
- The entire institution
- Transnational

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<p><b>Dimension 3: Sociocultural</b></p> <ul style="list-style-type: none"> <li>• Authorial leadership at the top If you join..... You can.....</li> <li>• Strong culture/Patriarchal             <ul style="list-style-type: none"> <li>• maintain and update</li> <li>• Only, single, universal standard for all text</li> <li>• single power holder of system</li> </ul> </li> <li>• Norm and tradition             <ul style="list-style-type: none"> <li>• non-profit charitable organisation</li> <li>• fundamental system</li> <li>• “your business is very dependent on stability of unicode standard and the future extension of standard”</li> <li>• UC relies on continued support by its membership                 <ul style="list-style-type: none"> <li>• give and take relationship</li> </ul> </li> </ul> </li> <li>• The future of emoji             <ul style="list-style-type: none"> <li>• modest investment</li> <li>• continue to serve unicode standard as information’s technology’ single universal character set.</li> </ul> </li> </ul>	<p><b>Dimension 2: Discursive</b></p> <ul style="list-style-type: none"> <li>• The form: writing to the ‘public’- visibility</li> <li>• Author draws on other discourses and external power to situate their position.</li> <li>• Thus their position line with the conditions set by external social and technical conditions.</li> </ul> <p>= Borrowed passage</p> <p>- Technical disciplines, secured software environment, needs of users, government around the world, the world of internationalisation standards, global economic growth</p> <p>Threads lead to UC’s promotional discourse - why UC membership is worth for you.</p> <p>-key to success/successful, portable, profitable projects/gain important benefits/ anticipate key trends/timely support/ economic benefits of standard</p>	<p><b>Dimension: Text</b></p> <p>Statement of emoji on the web:Unifying</p> <ul style="list-style-type: none"> <li>• UC as an institution is sender. words choices = shows intent institutional vision, attitude, and value.</li> </ul> <p>Old single well established institution front of audience - IT companies to join committee.</p> <p>- word: Membership, investment, global application, leadership, power, influence, require, benefit, advantage, stability</p> <ul style="list-style-type: none"> <li>• View on <b>idealism</b> - Pressure to change</li> <li>• You are required for our sake but in return, you will have advantages for your customer and economical growth.</li> <li>• we believe, we commit, we help</li> <li>• Therefore, YOU need to join</li> </ul>
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## Sample 1

Text signals context and stakeholders	<ul style="list-style-type: none"> <li>• Unicode Standard, technology</li> <li>• Single, universal character</li> <li>• Standard for all text</li> <li>• widespread</li> <li>• foundation, infrastructure, core, stability</li> <li>• dependent</li> <li>• International and world growth markets, charitable organisation</li> <li>• Future extensions</li> </ul> <p>Audience</p> <ul style="list-style-type: none"> <li>• business, broad membership, you, your company, vendors, government, organisations, your customer, your existing implementation, your investment</li> <li>• Security, stability, advance knowledge, leadership image, directing, improve, influence, long-term, promote</li> </ul>
Context	<ul style="list-style-type: none"> <li>• Advantages of membership, participating in the Unicode Consortium, promotion, institutional value, economic benefits</li> </ul>
Roles and responsibilities	<ul style="list-style-type: none"> <li>• Incorporate new character, maintain stability, long-term viability, dealing with heterogeneous systems, adding new Unicode</li> </ul>
Ethics	<ul style="list-style-type: none"> <li>• protect, preserve, maintaining, secure software environment, charitable, non-profit, cultural adaptation and adaptation, compatibility</li> </ul>
Power	<ul style="list-style-type: none"> <li>• Power modern global applications, leadership, global reach, access to important advance technological information, product strategies, timely support, world of internationalisation standard, preservation of cultural heritage,</li> </ul>

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<b>Ideology</b>	<ul style="list-style-type: none"><li>• far more than just characters</li><li>• status as world standard, universality, globalisation, cultural ideas, economic beliefs, political implications, reality of change, traditional, long-held, new categories</li></ul>
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# How many more Emoji do we need?

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## Appendix 3. Annotated text example (Sample 1)

**UN Consortium** Tech Site | Site Map | Search

### Contents

- Summary
- Advantages of Membership
  - Protect your investment
  - Advance the standard
  - Power modern global applications
  - Demonstrate industry leadership
- Continuing Support

### Related Links

- Membership Levels and Fees
- Join Unicode
- Donating to Unicode
- Contact Unicode
- Unicode Members

## Why Join Unicode

### Summary

As you know, the **Unicode Standard** is the single, universal character standard for all text. It has **widespread implementation and usage**, and is the foundation of **modern computer architectures** and the character infrastructure of the Internet and the World Wide Web. Maintained and updated by the **Unicode Consortium**, the **Unicode Standard is the core technology** that enables your entry into **technical, international, and world growth markets**, while maintaining a secure software environment.

Because Unicode is such fundamental technology, your business is very **dependent on the stability and future extensions** of the standard, **even though it may not be apparent to you**. Joining the Unicode Consortium is important to your business for many reasons, including to:

- protect your investment in software development
- advance the standard to meet your requirements
- power modern global applications
- demonstrate industry leadership

The work of the Unicode Consortium, a **non-profit, 501(c)(3) charitable organization**, is ongoing. Substantial work remains to extend the **structure for a more global internet, cultural adaptations, and applications interoperability**, such as for mobile computing. Maintaining the stability of the Unicode Standard and associated standards also is paramount: backward compatibility of current implementations must be maintained, requiring the attention and efforts of the membership. To carry on its work, the Consortium **relies on continued support by its membership**.

### Advantages of Membership

The Unicode Consortium has a **broad membership** from different countries, with a mix of **vendors, governments, and other organizations**. Your company can gain important benefits by participating in the Unicode Consortium, including: ensuring **stability and security** of the standard, having **advance knowledge of leading edge technologies**, **securing an industry leadership**, **directing the course of the standard**, and **keeping abreast of other members**. Membership provides **opportunities for leadership in your user community and with your key partners**. It improves your ability to plan product strategy and **stay competitive**. The total cost of membership to an organization is a **modest investment** compared to the **resulting benefits**.

### Protect your investment

The Unicode Standard must incorporate **new characters**, update character properties and algorithms, and still maintain the **stability of the standard to meet the needs of its users**. In this way, the Unicode Standard will continue to serve as information **technology's single universal character set**.

A **strong consortium** is required to maintain the stability of the standard in view of the **pressure to change character properties or deprecate specific characters**. Such requests must be carefully assessed to **determine whether they are improvements and whether they cause problems for your existing implementations, for the long-term viability of your data and your customers' data** and for the **long-term maintenance of production application environments**. The way to protect **your investment** in the Unicode Standard and Unicode locale data is to **actively work to promote their stability**.

Participation as a Unicode member also allows for a coherent and unified approach to other organizations, **providing additional weight** when dealing with issues that are **crucial to the members**, such as the **stability of language or country codes** that are core to the identification of **locales in your software**, or the stability of **other fundamental standards**.

### Advance the standard to meet your requirements

Through your **votes, your proposals and your participation** in the **Unicode Technical Committee**, you can influence the **standard to meet your requirements**, as well as the requirements of **your user community, your industry, and your key partners**.

There are continual requirements for new characters and mechanisms, especially in the **large and growing Asian markets**. Mobile computing, particularly in Japan, is **driving the use of many new symbols**. Unicode and related standards must evolve to meet these needs to **avoid the emergence of incompatible standards that would necessitate expensive and time-consuming re-architecture of your software products**. When the Chinese government created the encoding standard **GB 18030** and legislated that new products support it, members of the Unicode Consortium **validated the mappings to Unicode**, and worked to ensure interoperability, allowing businesses to **avoid re-architecting** their applications to support multiple simultaneous character sets.

Interoperability is key to success in most businesses today, especially in **dealing with heterogeneous systems**. Adding new Unicode **properties** and other specifications **reduces customer complaints** caused by **inconsistent behavior** in your products.

Enhancing the character repertoire of **Unicode expands market reach and productivity** without making **existing software obsolete**. These policies extend the **lifetime and the revenue-earning capabilities** of Unicode-based software applications. **Governments continue** to define and refine character repertoires as well, which can also require additions to the standard. For example, the **creation of the new European currency, the euro**, required the addition of its symbol to Unicode; other currency symbols have also been added recently.

### Power modern global applications

Employing Unicode in software projects yields improvements in **productivity, simplified project designs, ease of integration and other advantages** that result in successful, portable, profitable projects.

If **global reach is important to your business**, membership in the Unicode Consortium can give you **access to important advance technological information and experts from around the world**. Consortium members have early access to draft proposals and information shared between the Unicode Consortium and other organizations, including standards bodies, which **assist in advancing computing technologies**. Member companies therefore **benefit from an early opportunity to plan product strategies**. In this way **you can anticipate key trends and provide timely support to your users and partners** as the industry evolves.

**Textual** (pink highlight)  
**Discursive** (blue highlight)  
**Social** (green highlight)  
**power** (orange highlight)

**historical reflection** (handwritten note pointing to 'Unicode Standard is the core technology')

**Invisibility - technical discourse** (handwritten note pointing to 'even though it may not be apparent to you')

**You -> business with IT systems -> economic benefits, market competitiveness** (handwritten note pointing to 'your business is very dependent on the stability and future extensions of the standard')

**UC need You** (handwritten note pointing to 'reliance on continued support by its membership')

**Why? historical / external power holder / technical needs** (handwritten note pointing to 'strong consortium' and 'interoperability' sections)

**mirrors social reality.** (handwritten note pointing to 'global reach is important to your business')

# How many more Emoji do we need?

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Speaker UC  
 Receiver "you"  
 IT  
 Japanese Market  
 Chinese Market  
 South Korean Market  
 Vendors  
 Government

"non-profit" vs "economic benefit"  
 Competitive  
 image  
 customer loyalty  
 global reach

Becoming member  
 Consider as Expert of internationalisation  
 ↓  
 generalisation

Two side  
 UC      Member

brand image  
 business opportunities  
 economic benefit

membership fee  
 knowledge  
 unique technical information to embed Unicode to their system

The Unicode Consortium provides the industry-friendly interface to the world of internationalization standards. Through its alignment with ISO/IEC 10646 and the collation standard ISO/IEC 14651, the Unicode Standard is effectively endorsed by governments around the world. Close cooperation and formal liaison with ISO committees ensures that additions to these standards remain synchronized in character repertoire, encoding, and default ordering. The maintenance of synchrony in repertoire between these standards helps ensure that government procurement requirements do not present an obstacle to sales. The Consortium also encourages member companies to participate in national standards bodies, such as INCITS/L2 for U.S. companies. (See also Economic benefits of standards.)

The ongoing activities of the Consortium adapt the Unicode Standard to a widening variety of applications and new technologies such as Web Services. The Unicode Consortium works closely with the World Wide Web Consortium (W3C); for example, the two organizations maintain a joint technical report that describes best practices for using the Unicode Standard in the context of markup languages, such as XML. The Unicode Consortium also works with the IETF to ensure that important IETF specifications meet internationalization requirements, such as those for international domain names, languages, and charsets.

Through membership in the Consortium, your company can also tap into the pool of experts that work on important writing systems; for example, the Ideographic Rapporteur Group with delegates from the countries that use Chinese, Japanese, and Korean characters.

## Demonstrate industry leadership

The Unicode Standard is intimately connected with software internationalization and globalization, with member companies being considered experts. Membership in the Unicode Consortium makes a strong statement to your customers that your products and business will be able to accommodate their requirements when they are ready to expand globally.

Consortium members contribute to the development of a leading technology standard, and thus are well-positioned to provide education and realistic visions of industry trends to help their user communities and key partners prepare strategies to be more competitive. This effective leadership can increase your customer loyalty and business opportunities.

The Consortium leads the ongoing incorporation of minority language scripts into the Unicode Standard. This work preserves world culture and creates new opportunities to extend the reach of existing applications. It also allows members to demonstrate their commitment to serve the communities in which they do business, and to be publicly associated with the preservation of cultural heritage.

The Unicode Standard depends on active participation from individuals employed by its member organizations. Many participants are experts in internationalization, character encoding, linguistics, typography or other fields related to text processing or rendering. Active participation in the development of the Unicode Standard helps your employees improve their technology and leadership skills. In addition to networking with other experts in the field, your employees further their knowledge of consensus building, negotiation, principles of robust software specification, and design. They find innovative solutions to complex technical problems, fostering creative problem-solving skills.

## Continuing Support

Many may think that Unicode is complete, and with over 140,000 characters, the Unicode Standard does include the vast majority of characters in use around the world.

However, Unicode is far more than just characters.

Without the properties, algorithms, and other specifications in the Unicode Standard and associated standards, there would be no interoperability between different implementations. Ongoing enhancements to the Unicode Standard character properties, the Unicode locales project, and other specifications further improve text processing and rendering, and provide solutions to practical problems encountered by members.

The Consortium publishes the standards, algorithms, and data necessary for advanced software applications in the broader field of Unicode and software globalization, such as Unicode in regular expressions. These features must be maintained, and updated to meet the needs of members, while always ensuring the requisite stability for current implementations. The Unicode Consortium also plays a vital part in ensuring that other important standards meet the requirements of its members.

The Unicode Consortium seeks and welcomes new members to join in these important activities.

Join Unicode

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assumption of market.

- expecting brand to share information pool - UC for you access to important - (in last paragraph)

## Appendix 4. Background questions for CDA

### **Framing**

What message does UC want to convey?  
What behaviour does UC want from recipients?  
How power exercise through language?

### **Foreground**

What issues are emphasized?  
What is the subject of the text?  
What is made important?

### **Background**

What concepts and issues are played down?  
What is reduced in importance?  
What is minimised?

### **Audience**

Is the intended audience expected to share the views of the text?  
What are the audiences' relation to the UC and the subject of the text?  
Is the audience receptive or hostile?

### **Topicalisation**

What is put at the front of each sentence to show?  
What is it about?  
The topic of each sentence and paragraph will indicate what is valued or devalued?

### **Stakeholders**

Who has the most authority in the sentence?  
In the case of passive voice, who is being left out?  
What degree of formality is there in the text?  
What words indicate a degree of certainty or attitude?  
What does society value?  
What does UC value or dismiss?  
What biases are presented in the text and what are the implications?  
Who is presented as powerful in the text and what are the implications?

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