



Conveying Emotions Through Branded Emojis

Case: Dice Hunter, Greener Grass Company

Piritta Vaarala

BACHELOR'S THESIS
December 2020

Media and Arts
Interactive Media

ABSTRACT

Tampereen ammattikorkeakoulu
Tampere University of Applied Sciences
Degree Programme in Media and Arts
Interactive Media

VAARALA, PIRITTA:
Conveying Emotions Through Branded Emojis
Case: Dice Hunter, Greener Grass Company

Bachelor's thesis 52 pages, appendices 4 pages
December 2020

The purpose of this thesis was to study theory behind the expression of emotions in online communication, its relation to the use of emojis and the design principles of icon creation. The objective was to utilise the findings from these theories and from additional analyses in order to create a custom emoji set for the case game Dice Hunter, to be used on their Discord server. The study was carried out as a project for Dice Hunter's developer Greener Grass Company.

This study consisted of a literature review on the theory subjects, benchmarking conducted on three games that had their own branded Discord emojis, and a sentiment analysis conducted on the emoji usage history and preferences in the Dice Hunter Discord server. A questionnaire-based survey was carried out as a part of the sentiment analysis.

The key findings suggested that without the aid of a physical body, emojis were the closest non-verbal cue for expressing emotions in online communication. In order to convey these emotions accurately, emojis needed to be easy to read at a glance but also descriptive enough so that they could be easily distinguished from each other. When asked about their preferences, the majority of the Dice Hunter community members stated that they preferred diversity in expressions over diversity in characters when it came to custom emoji sets.

Based on the findings, a set of 36 custom emojis was created and implemented both on Dice Hunter's Discord server and on the company's Slack channel. In the future the aim is to expand the usage to instant messaging applications and to adjust the emojis into a sticker format.

Key words: emoji, custom emoji, discord, mobile games

CONTENTS

1	INTRODUCTION	6
2	CONCEPTS AND THEORIES	7
2.1	Expressing emotions in social media	7
2.2	Emoji	9
2.2.1	Cartoon + emoji: stickers	12
2.2.2	Emojis in Discord	14
2.3	Design principles	15
2.3.1	Context and company	16
2.3.2	Size, consistency and scalability	16
2.3.3	Level of detail	18
2.3.4	Colour	19
2.4	Client: Dice Hunter	20
2.4.1	Characters and symbols	21
2.4.2	Visual identity	23
3	BENCHMARKING	24
3.1	Clash Royale	24
3.1.1	Discord overview	24
3.1.2	Custom emoji loyalty to brand vs. usability in Discord	25
3.2	SINoALICE	26
3.2.1	Discord overview	26
3.2.2	Custom emoji loyalty to brand vs. usability in Discord	27
3.3	Fall Guys	28
3.3.1	Discord overview	29
3.3.2	Custom emoji loyalty to brand vs. usability in Discord	30
3.3.3	Community-voted emojis	30
3.4	Main takeaways	31
4	SENTIMENT ANALYSIS	32
4.1	Dice Hunter community in Discord	32
4.2	Analysing the chat	33
4.2.1	Reactions	34
4.2.2	Replies	36
4.3	Voiced requests and other findings	37
4.4	Survey	38
4.4.1	Results	39
5	PRACTICAL APPLICATION	43
5.1	Set of requirements based on research	43

5.2 Producing a custom set of emojis for Dice Hunter	43
5.2.1 First iteration round.....	44
5.2.2 Amount	45
5.2.3 Choosing characters and emotions	46
5.2.4 Polishing and proofing	47
5.2.5 Naming & uploading to Discord	47
5.2.6 Adaptation for other IM applications	48
6 DISCUSSION	50
REFERENCES	51
APPENDICES.....	53
Appendix 1. Dice Hunter style guide 1 (2).....	53
Appendix 2. Dice Hunter style guide 2 (2).....	54
Appendix 3. Dice Hunter: Custom Emojis for Discord questionnaire ..	55
Appendix 4. Finalised emoji roster with names	56

ABBREVIATIONS AND TERMS

2D	two-dimensional
3D	three-dimensional
admin	administrator; in the context of this thesis, administrator on a Discord server
ASCII	American Standard Code for Information Interchange; a character encoding standard for electronic communication
bitmap	a rectangular grid of pixels where each pixel has a specified colour; makes up an image that can be displayed on a monitor or printed on paper
DH	Dice Hunter
F2F	face-to-face
gacha	video game mechanic that replicates a capsule-toy vending machine where players pull prizes in exchange for money
gif	Graphic Interchange Format; a bitmap image format that supports animated images but no sound
IM	instant messaging
IP	Internet Protocol
PBR	physically based rendering
px	pixel
RPG	role-playing game
UI	user interface
VoIP	Voice over Internet Protocol
XP	experience points

1 INTRODUCTION

With the rise of smartphones, instant messaging applications and social media as the mainstream means for communication in the 21st century, the way people communicate through text has changed significantly. Emojis have become a stable part of the expression of emotions online, whether or not it is considered an accurate representation. But what does it really mean to convey one's emotions using emoji? And how does a brand convert itself into a recognisable set of emojis? These are the main questions that this thesis aims to answer by researching the topic and utilising the gained knowledge in order to create a custom set of branded emojis for the mobile game Dice Hunter.

The purpose of this thesis is to gather and study theory behind the expression of emotions online, how it connects to the use of emojis, how did emojis become so popular in the first place, and the basic design principles behind the creation of an emoji. To support the gathered theory, three games that have more or less successfully turned their brand into a set of custom emojis will be used for benchmarking, as well as a sentiment analysis will be conducted within the Dice Hunter community in Discord to find out their preferences concerning the use emojis. The findings of both the research and the analyses will then be put into practice by outlining, creating and polishing a cohesive set of custom emojis that will be a recognisable part of the Dice Hunter brand and usable on different instant messaging platforms.

The client for the project part of this thesis is Greener Grass Company, and the need for the custom emojis and through them, for this thesis, arose when the official Dice Hunter Discord server was launched. As custom emojis are such an essential part of a game community's Discord experience, the creation of a Dice Hunter specific emoji set will benefit both the client and the player community.

2 CONCEPTS AND THEORIES

2.1 Expressing emotions in social media

As Roser Beneito-Montagut states in their 2017 article, the understanding of how emotions can be expressed online has changed significantly over the years. According to Beneito-Montagut, while Rice and Love (1987) defined the online expression of emotions very difficult, later studies argue against that view, some like Turkle (1995) and Joinson (2001) arguing that due to the lack of social constraints and personal restraint (known as online disinhibition effect), one can have more freedom to express their opinions online than they would in face-to-face situations. (Beneito-Montagut 2017, 89.) Essentially, no matter how elaborately a text is written in online communication it lacks a body to accompany it; when communicating face-to-face, human bodies act according to the displayed emotion, whether they are voluntary (slamming the doors when angry, wiping away tears when trying to hide sadness) or involuntary (increased heart rate, blushing, arching an eyebrow) acts (McCulloch 2019, 155–156).

The expression of one's emotions in online communication includes a wide range of cues of which Beneito-Montagut (2017) highlights three: non-verbal, action and verbal (Figure 1). Non-verbal cues are distinct actions that accompany text and words in order to convey the underlying emotional charge. They can be either unconscious if the communication is carried out over video or audio, or conscious when neither of those is involved. Action cues take place in response to different stimuli and are voluntary acts from the person expressing them, such as choosing to not reply when agitated or to reply immediately without delay. Verbal cues are the written expressions of emotions and can either be direct or subtle. (Beneito-Montagut 2017, 90–92.) For the purpose of this thesis the focus is on non-verbal cues.

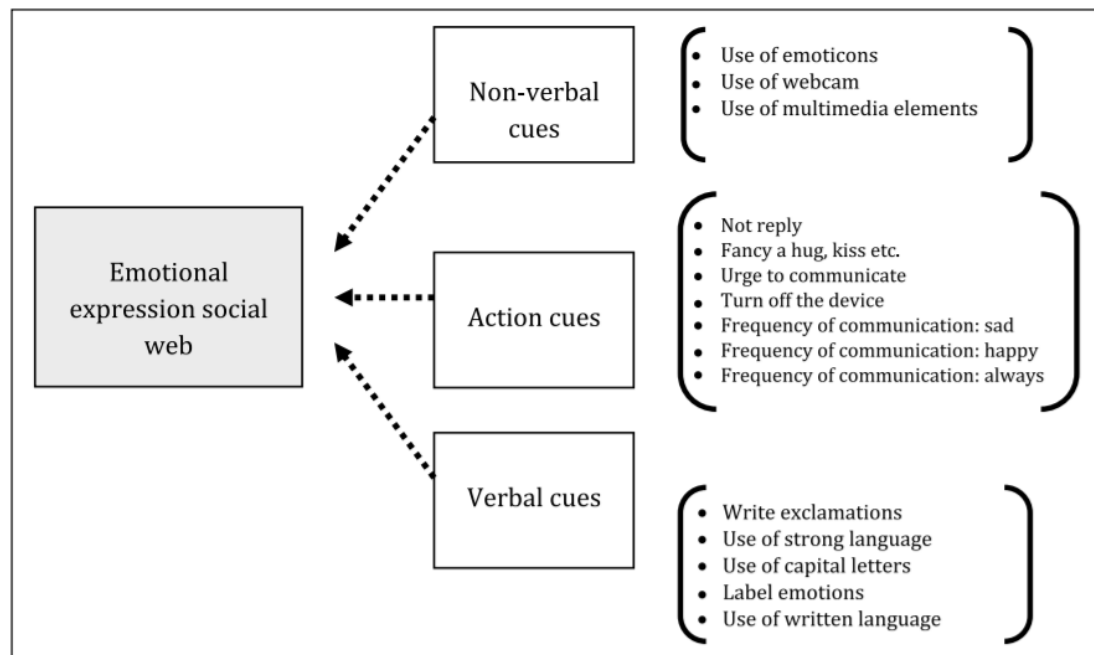


FIGURE 1. Emotional expression on the social web (Beneito-Montagut 2017). Only the top part, “Non-verbal cues”, is relevant in this thesis.

In the research of face-to-face communication non-verbal cues, such as facial expressions and both conscious and unconscious gestures, hold the merit of being reliable indications of peoples’ emotions. The same is not necessarily true for online communication without the aid of a webcam or audio. (Beneito-Montagut 2017, 90–91.) In order to convey the intended meaning and emotion more accurately in online communication, textual output has been adapted over time by mimicking the tone of voice, using phonetic spelling and supporting the text with an emoticon or an emoji. Generally, emoticons and emojis are argued to be the non-verbal representative of facial expressions in online communication. (Murphy 2017; Dresner & Herring 2010, 251.)

Though the concept of an irony pointer in a sentence had been around from the early 1910s, the term “emoticon” as we know it did not come into being until 1982. Named after “emotion” and “icon”, emoticons are ASCII-based faces that were originally created by the Carnegie Mellon University professor Scott Fahlman as a proposal to indicate a message as a joke. The first two emoticons were two sideways faces :-) and :-(to represent a joke and not a joke, respectively. As the expressions were created using ASCII characters, making them easy to type and

incorporate within texts, they were quickly adopted by others both inside and outside the university. (McCulloch 2019, 176-178.)

While emoticons evolved from joke indicators to general expressions of sentiment and gained popularity in English-speaking countries over the next two decades, cell phone carriers in Japan developed a number-coded system of small pictures as a data saving option for sending images. An image in that system would be known as emoji. (McCulloch 2019, 180.)

2.2 Emoji

Before the creation of emoji, Japanese phone users developed their own writing system for digital faces called kaomoji. The name kaomoji combined the Japanese words for face (顔, kao) and character (文字, moji). Kaomojis were developed around the same time with emoticons, the first ones also appearing in the 1980s, but the main difference was that whereas emoticons portrayed a sideways face, kaomoji faces were vertical and used brackets to illustrate the whole face instead of only eyes, nose and mouth. While emoticons were often constructed with four or less symbols and depicted different emotions with a different mouth, kaomojis could use up to 20 symbols, accentuate eyes over mouth and even add a second “person” (known as wide kaomoji) to depict a wider range of emotions and actions. (Giannoulis & Wilde 2020, 3; Matsuda 2020, 198, 201–206; McCulloch 2019, 179–180.) Table 1 illustrates the difference between the emoticon and kaomoji interpretations of some common emotions.

TABLE 1. Common emotions presented as emoticons and kaomojis

Emotion	Emoticon	Kaomoji
Happy	:-)	(* ^ ω ^)
Sad	:-((>_<)
Confused	:-O	(· _ · ;)
Crying	:'((T_T)

By the late 1990s, cell phone communication had evolved from the sole use of kaomojis as emotion indicators into sending picture messages back and forth. In order to decrease the data charges that sending an image took, in 1997 a Japanese cell phone carrier SoftBank implemented a similar encoding system for the most common pictures that was already in use for letters and characters, where each picture was assigned a short number code that the receiving device could read and display the corresponding image. The first set included 90 small pictures consisting of faces, hand gestures and icons depicting weather or transit et cetera, and each picture was called an emoji, or multiple emojis (Figure 2). Despite its coincidental similarity with the English term emoticon, the name emoji did not derive from it but was instead formed as a combination of the Japanese words for picture (絵, e) and character (文字, moji). (McCulloch 2019, 180.)

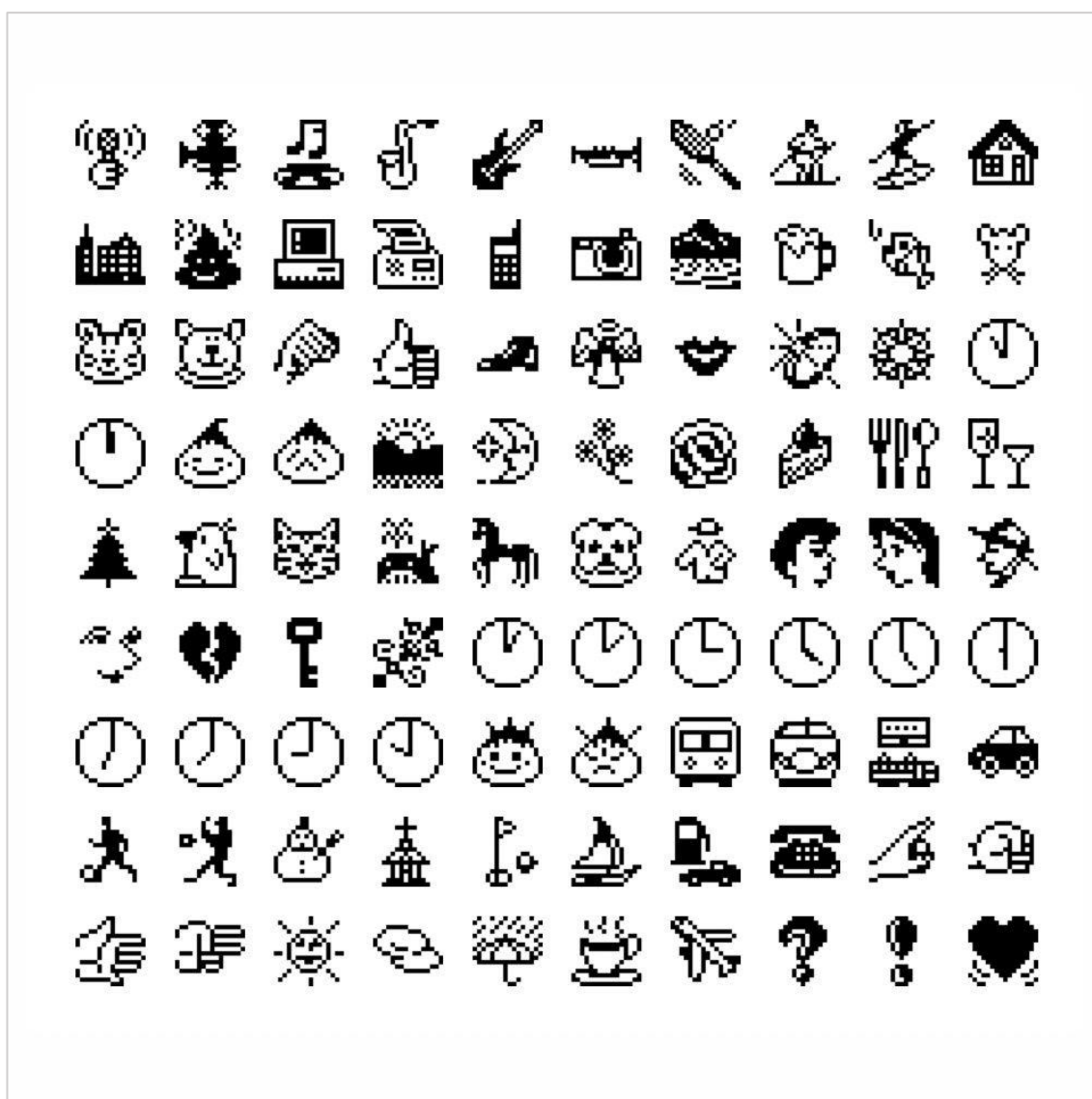


FIGURE 2. The 1997 SoftBank emoji set (Burge 2019)

As the popularity of emojis grew among Japanese phone carriers who each created and added their own emoji sets, they ran into a problem of incompatibility between the short number codes, which could result in a blank box or a completely different emoji in the receiver's end. One notable incompatibility was between SoftBank's original emojis and DoCoMo's set of 176 emojis released in 1999 (which is often misleadingly cited as the first set of emojis ever created, as explained by Emojipedia's Chief Emoji Officer Jeremy Burge in his 2019 blog post), where symbols would display entirely different between the two carriers. Although carriers approached the Unicode Consortium, an organisation responsible for standardising the number codes for characters and symbols across platforms, already in 2000, it wasn't until 2010 that emojis were deemed more than just a fleeting trend and accepted as part of the Unicode system. (McCulloch 2019, 181–182.)

By March 2020 and Unicode version 13.0 there are 3,304 emojis in total, depicting a wide variety of subjects from facial expressions to hand gestures, foods, country flags and symbols, including gender and skin tone variations (Emoji Counts 2020). After their introduction to the Western phone users in the early 2010s their popularity has surged, resulting in the tears of joy (😄) emoji surpassing the regular smiling emoticon (:-) in popularity and becoming the Oxford Dictionaries' Word of the Year in 2015. As McCulloch (2019) explains in their book at length, whether emojis even constitute as words or their own language is debatable. No matter how creatively used, they can't be used to substitute whole sentences while keeping the content and the informativeness intact, nor can they handle meta-level vocabulary like saying "emoji" in emoji. Nevertheless, they are a stable part of modern everyday conversation. (McCulloch 2019, 157–158, 182.)

One of the reasons for the popularity of emojis could be their position as a middle point between emoticons and gifs. Emoticons are relatively easy to type as they consist of symbols found in the keyboard but cannot display a very wide range of emotions. Gifs on the other hand can embody any emotion as they can capture moments of movie scenes and include text but finding a specific one can be hard and they require their own line of text, making them impossible to include seamlessly in a sentence. Emojis are easy to find on any device that has a Unicode-supported keyboard and they can either be fitted between lines of text, stringed

together to form their own symbolic sentence or simply sent on their own. (McCulloch 2019, 184–185.)

Due to the increased use of emojis over the decade, people have come to expect them as parts of sentence to be able to properly observe the tone of that sentence. For some, communication without any use of emojis can feel cold and distant (Giannoulis & Wilde 2020, 1). Different phone operating systems come with their own integrated emoji keyboards already equipped, and many applications have their own visual variations for the universal Unicode emojis (Figure 3). In Figure 3 Code stands for the emoji's individual number sequence (essentially a tag), browser displays the native image for that tag and the abbreviated platforms are as follows: Apple, Google, Facebook, Windows, Twitter, JoyPixels and Samsung. A popular variation of these universal emojis on instant messaging platforms are the larger and more expressive images known as stickers.

























Code	Browser	Appl	Goog	FB	Wind	Twtr	Joy	Sams
U+1F600								
U+1F602								
U+1F44B								

FIGURE 3. Same emoji interpreted differently on different platforms

2.2.1 Cartoon + emoji: stickers

In the early 2010s the development of a new Japanese IM application Line also introduced phone users to stickers, a combination of cartoons and emojis that could be sent with a single tap. When they were introduced through Line, stickers featured Line's original characters that displayed different exaggerated emotions that were reminiscent of the expressions on Japanese cartoon characters, and

were marketed as a fast way to reply to a message instead of typing a reply like “okay” or “got it” (Figure 4). Stickers were larger in scale than emojis, enabling them to be more expressive and to include text, and typically came in a thematic set of a dozen in maximum, either for free or for a small fee. (De Seta 2018, 8-9; Russell 2013.)



FIGURE 4. Stickers featuring Line’s original characters and being used in the chat (Russell 2013)

In 2013, stickers were introduced to the Western users when Facebook added their own sticker sets on their platform (Yeung 2013). By 2020, stickers are offered by various IM platforms worldwide like Telegram, Whatsapp and WeChat and come in various sized sets. Each platform has their own sticker store where the content is produced either by the IM services, by designers whose work is chosen through competitions, or by the users themselves (De Seta 2018, 9.)

2.2.2 Emojis in Discord

Discord is a free chatting, voice call and file sharing service that originally started off as an in-game chat service in an iPad multiplayer game Fates Forever but separated into its own platform when the game didn't succeed. When Discord officially launched as its own application in 2015, it was initially aimed for the gaming community as a lightweight and more secure option to VoIP chats like TeamSpeak and Skype, as it did not require downloading a separate software nor did it allow anyone to find out another user's IP address. By the end of 2020 Discord has evolved from a gaming centric community into a platform for studying, collaborating and for other day-to-day communication. (Citron n.d.; Marks 2016.)

Emojis are an integral part of Discord as they can be inserted into sentences, sent on their own as replies and used as reactions to other messages. One of Discord's services is the possibility for servers to host their own custom emojis. Like customisable characteristics and outfits ("skins") in video games, custom emojis offer Discord's users (from here on called "members") a chance to express themselves better. (Citron n.d.)

Besides the globally available emojis, a free Discord server offers 50 custom emoji slots where anyone with the emoji managing permission can upload their personalised emojis to be used within that server. Members with a monthly subscription to Discord Nitro have an additional access to 50 animated emojis and can use any custom emojis across different servers, groups and direct messages. (Adding Emojis and Reactions 2020.)

Discord's custom emojis support images up to 128x128 px in size with a file size less than 256kb, but they get resized to 32x32 px when they are used in the chat. Each emoji is given an individual name that needs to be at least two characters long and contains only alphabets, numbers and underscores. Emojis can be used either from an Emoji Picker menu on the bottom right corner of the screen, or by typing a colon and the emoji name (e.g. :happy:). Discord will automatically start suggesting emojis with matching names as you type (Figure 5). In the Emoji Picker menu, custom emojis are sorted in a reverse alphabetical order and cannot

be organised by hand, so the only way to assure that some emojis are grouped together is to give them a common prefix. (Adding Emojis and Reactions 2020.)

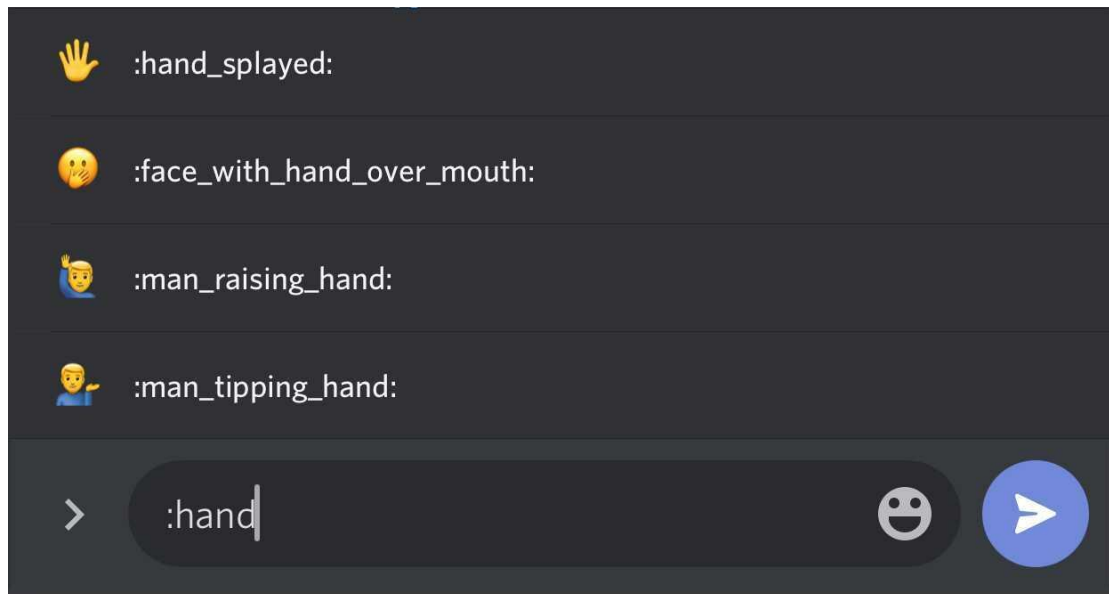


FIGURE 5. Discord's automatic suggestions when starting to type :hand:

2.3 Design principles

Although emojis are often described as icons or signs, the official classification for an emoji is a pictogram. Pictogram, also known as a pictograph, is a picture that represents a word, a phrase or an object (Cambridge Dictionary n.d.). The common function of a pictogram is to be graphical and easy to read to help users navigate and to clarify functions (Hicks 2011, XVII).

In order to create a functional set of emojis, a study of the most essential design principles behind pictogram creation was conducted. The following subchapters concentrate on four concepts for building balance and consistency when creating a pictogram that are examined in Jon Hicks' 2011 book *The Icon Handbook: the context of the pictures, size and scalability, level of detail and the use of colour*. For the sake of consistency with the source, the pictograms will be referred to as icons as Hicks does in their book.

2.3.1 Context and company

It's essential to keep in mind which context the icon will be used in as well as whether it will be accompanied by other icons, and to recreate those conditions in the working file to ensure consistency in the final product. In practice this means placing any background image or colours that the icon will be displayed on as a separate layer behind the working file so they can simulate how the final product will look on said background, but also be hidden for export. (Hicks 2011, 119.)

Similarly, it's recommended that icons that will be displayed as a set are also created as a set inside one document as opposed to each icon having a separate document, as that ensures consistency in style, size and line weight et cetera. Hicks recommends either setting up multiple artboards in Adobe Illustrator or using slices in Adobe Photoshop to export each icon as an individual file from their shared document. (Hicks 2011, 119–120.)

2.3.2 Size, consistency and scalability

After taking notice of the context, size is the next important factor as it is one of the key factors determining how detailed the icon can be. Smaller icon cannot handle the same amount of detail as a bigger one can, or it will be in danger of losing its readability. Once the size is determined it is important to consider how much space the icon will take on the available area, which again links to creating a set of icons in company with each other. As demonstrated in Figure 6, a set of icons with different weights will look unbalanced if each icon takes up the whole area. Instead, giving the heaviest icons less space makes the whole set more balanced. (Hicks 2011, 123, 125.)



FIGURE 6. The difference between an unbalanced and a balanced set of icons (Hicks 2011, 125)

A consistent line weight and visual style between the icons helps to balance a set further. However, a set numerical value in the line weight does not always assure a consistent result as pixel graphics will get an effect called anti-aliasing, or smoothing of edges with transparent pixels, when a line is placed at an angle. Because of anti-aliasing a vertical line will look thicker than a line at 45° angle, even if they have the same line weight (Figure 7). For this reason, consistency is also largely based on visual perception and adjusting the line weights by what seems to be right. (Hicks 2011, 126.)

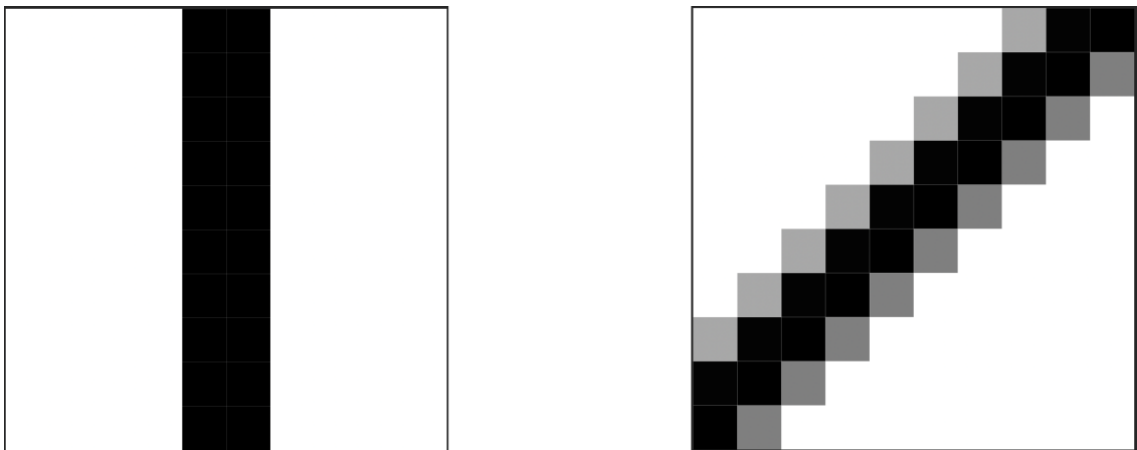


FIGURE 7. Example of a 2 px line with and without anti-aliasing

Finally, any possible scaling needs to be accounted for in the design process. If the icon will be displayed in different sizes, say 32×32 px and 64×64 px, any line that is 1 px in weight in the smaller version will be double weight for the larger version and vice versa. While both versions can be created separately with the

aid of calculations, it will result in more work and time spent on the creation process. It is common practice to either create the icon in the largest size and scale the final version down to the smaller variables, or to create a vector base using any vector-based method for example in Adobe Photoshop or Illustrator so it can be scaled up or down without losing the quality. Scaling a pixel image up will result in loss of quality and a blurry outcome, and thus is not a recommended approach. (Hicks 2011, 128-129.)

2.3.3 Level of detail

As established previously, the size of the icon is one factor that determines how much detail can be included. Although the basic principle of icon design determines that the less detail there is overall the faster it is to understand, each icon needs to be evaluated individually based on what is the core message that needs to be delivered. While a clock face can be shown without the numbers and can still be understood, an icon portraying a phone is better understood when it has the home button and speaker details to distinguish it from a picture frame. In other words, some icons will need more details than other, and, in those cases, it needs to be determined which details are the most essential ones to display. (Hicks 2011, 130.)

Like excessive details, complicated shadows, borders and perspectives can make the icon harder to read by increasing the amount of anti-aliasing and thus decreasing clarity. If shadows and perspectives need to be included, they can be done with the use of negative space and with a suggestion of depth rather than a realistic angle (Figure 8). Again, the importance is in the essential form, or silhouette, over the complicated details. (Hicks 2011, 77–78, 131–134.)



FIGURE 8. Examples of shadows and perspective created using negative space and a suggested depth (Hicks 2011, 132)

2.3.4 Colour

The final point of consideration in icon design is the use of colour and lighting. When creating the icon document, a colour depth value needs to be set. Colour depth is measured in bits (8-bit, 16-bit, 32-bit etc.) and corresponds to the number of colours an image can contain. Higher bit depth equals more colours, but also larger image size. In Photoshop, the bit depth amounts are given in bits per channel (the three channels being red, green and blue) and are thus different from the bit depths given in terms of colour displayed by monitors. Photoshop's 8-bits per channel equals to 16.8 million colours, whereas 16-bits per channel equals 281 trillion colours. While 16-bits per channel is favourable in photo editing and gradient work, in case of printing and simpler works like icon design the 8-bits per mode is the recommended option. (Hicks 2011, 153–154; Patterson n.d.)

The use of a specific colour can help enhance the icon's message or visual importance, but it should not be solely relied upon. Each person interprets colours differently based on their culture, background and past experiences, and people with colour vision deficiencies might not be able to tell some colours apart at all. For these reasons an icon should not solely rely on colours to convey a specific message, but instead use them together with known identifiers or symbols to enforce their message. The colour red can be used in a technical icon to symbolise warning or error, but in other contexts it can also signify warmth or love, or in an

opposite case problems or danger. Figure 9 lists some of the connotations related to different colours. (Hicks 2011, 113–114.)

Temperature	Colour	Positive	Negative	Technical
Warm	Red	Importance, warmth, life (blood), love, revolution, celebration and good luck (China)	Stop, problems, danger	Warning, error
	Orange	Warmth, energy	Cheap	RSS
	Yellow	Joy, happiness, light, wisdom	Warning (combined with black), forbidden, cowardice, decay	Secure, highlight
Warm/cool mix	Green	Life, nature, vitality, go, growth	Envy, madness	Sharing, correct
	Purple	Royalty	Cruelty, arrogance	
Cool	Blue	Daytime, calm, information, corporate	Cold, corporate	Selected, on, enabled
	Grey	Luxury	Sadness	Disabled, off
Neutral	Brown	Comfort, nature	Poverty	
	Black	Sophistication, luxury, expensive, prosperity	Death, mourning, evil, mystery, misery	

FIGURE 9. Different colours with their common positive, negative and technical associations (Hicks 2011, 114)

2.4 Client: Dice Hunter

Dice Hunter is a tactical turn-based mobile RPG developed and published by Greener Grass Company in March 2016. The game combines elements from traditional board games and tactical puzzle games as players collect and strengthen special dice infused with magical powers in order to defeat hordes of enemies cascading down on them. By November 2020 the game has over 500,000 installs on Google Play and an average rating of 4.3/5 on Google Play and 4.6/5 on App Store.

Since Dice Hunter takes inspiration from tabletop RPGs, its signature features are the individual collectible dice and the fantastical creatures both trapped inside said dice and met as enemies. Following subchapters will take a closer look at the different characters and symbols in the game as they are the most prominent feature present in all advertising and the game's splash screen, as well as at the features that make up the game's visual identity.

2.4.1 Characters and symbols

Dice Hunter features a diverse cast of characters that players can collect by summoning and meet in the levels as enemies. Each summoned character comes trapped inside a die, resulting in individual dice with different elemental powers that the player can utilise in a fight. Figure 10 shows an example of the character collection with their corresponding dice inside the game. There are no human characters in the game, but instead the cast consists of different creatures ranging from dragons to orcs, vampires and yetis. By November 2020 there are 29 collectible characters/dice in total, and 15 types of enemy characters.



FIGURE 10. The collectible characters of Red Dragon, Yeti and Orc with their corresponding dice

Although many of the characters are represented in Dice Hunter's marketing materials, the official mascot of the game is a low-level enemy character called a Bonehead. Boneheads are minions to the game's main villain and are present from the very first levels. Their heads resemble a bone die, with the side denoting

“two” as their eyes. Boneheads have been present in the game’s icon since its release in 2016, and although their appearance has changed since, they are still the main face present in the icon, most of the update teasers in Facebook (Figure 11) and even in different merchandise. (Dice Hunter N.d.)



FIGURE 11. The Bonehead character in the game’s icon and in a Christmas post in Facebook (Dice Hunter 2019)

Dice Hunter also features symbols that are present throughout the game in various contexts. Each of the collectible characters belongs to one of the five elements in the game: fire, water, earth, air and misfortune. Each of these elements has their own symbol and colour as depicted in Figure 12. The collectible dice display different combinations of four other symbols instead of numbers, those symbols being a sword, a shield, a star (symbolising luck) and a lightning (symbolising magic). Three of these symbols can be seen on the dice in Figure 10 in subchapter 2.4.1.



FIGURE 12. The five element symbols in Dice Hunter

2.4.2 Visual identity

Dice Hunter's visual style is a combination of vibrant colours and playful characteristics that make the assets feel tangible and three-dimensional in nature, despite them being 2D save for the dice. Both the UI elements and character illustrations feature slightly askew lines, little pieces chipped away from edges and strong highlights that give the objects their realistic yet heavily stylised feel.

The official style guide for object creation (attached as Appendix 1) outlines the main creation principles as follows:

- clear surfaces
- shading with subtle gradients
- strongly highlighted corners for an emphasised 3D effect
- slightly funky in shape
- details, but without losing readability
- primary and secondary shadow.

Additional principles are listed in the style guide for enemy characters (Appendix 2), which also apply for other assets. Those additional principles include the colour palette with two main colours and an accent colour (plus neutral colours as needed), light direction coming directly from above and the shape language that combines hard corners with soft curves.

Based on an original project briefing with the Art Director Heikki Honkimäki (2019) who is responsible for Dice Hunter's visual identity, the main idea behind all assets has been that the end result should resemble a fridge magnet; tactile, three-dimensional and assembled from small plastic pieces, but with the right amount of cartoony stylisation.

3 BENCHMARKING

3.1 Clash Royale

Clash Royale is a real-time mobile strategy game developed and published by Supercell in March 2016. The game combines the world and characters from Supercell's earlier game Clash of Clans with an online multiplayer tower defence gameplay. Clash Royale has over a hundred million installs in Google Play and an average rating of 4.2/5 in Google Play and 4.8/5 on App Store.

Like Clash of Clans and other titles by Supercell, Clash Royale is easily recognisable for its super deformed characters, boxy buildings and bright, saturated colours. The in-game content is a blend of PBR-rendered world and characters and cell-shaded, outlined UI elements laid on top. The gameplay is fully animated and fast-paced with an emphasis on the action rather than the characters.

3.1.1 Discord overview

Clash Royale has a verified Discord server with nearly 160,000 members by November 2020. The server has 147 custom emojis of which 43 are animated. Two thirds of the emojis depict characters and creatures from the game, both in their in-game style and in stylised variants, and the remaining third consists of in-game icons, texts and memes.

The names are mostly consistent with the prefix CR (e.g. :CRGiantAngry:) to denote a static Clash Royale-specific emoji, and gif (e.g. :gifGiantAngry:) to denote an animated equivalent. Only nine emojis don't have either of those prefixes and are either memes or otherwise common icons. Following the prefix, the naming is not so consistent as there are names with both the character and expression and with only the expression.

3.1.2 Custom emoji loyalty to brand vs. usability in Discord

The emojis that depict characters from Clash Royale come in three different styles: in-game renders, cell-shaded cartoon renders and round “blob” characters that resemble the early Google emojis from mid-2010s. All three of these styles are depicted in Figure 13 where the cartoon renders make up most of the emoji roster with a few in-game models in between (for example on row 1, column 1 and row 3, column 5) and blobs on the last row. The cartoon stylisation of the characters is the same that is used in the in-game UI elements, so despite them not looking exactly like the original in-game models, they are still easily recognisable as characters from the Clash brand.

The icon and text emojis have the same appearance as they do inside the game. The only emojis that are not loyal to the brand are the few memes and borrowed characters that have been added to the roster.

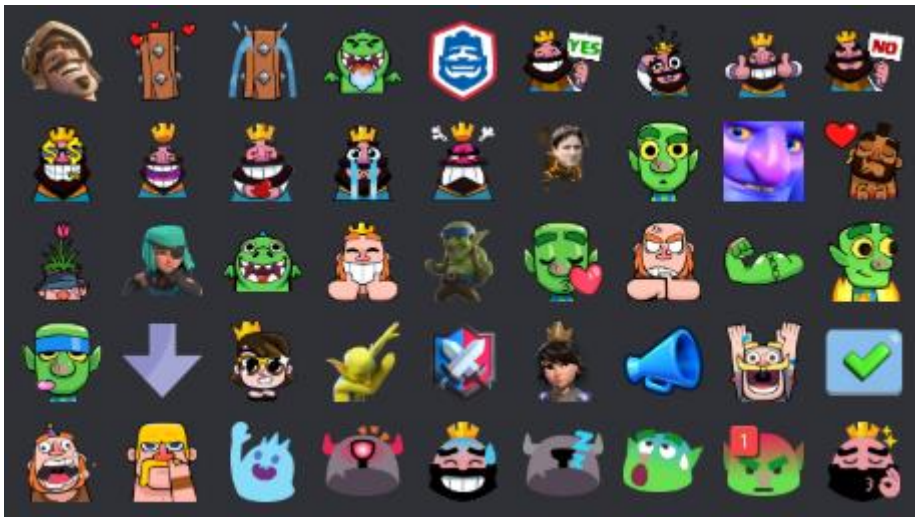


FIGURE 13. A sample of Clash Royale’s Discord emojis

As most of the emojis have simplified details and are individually shaped, they are easy to read even in the smallest form in reactions. The in-game renders are harder to read than the cartoon variants due to their complicated shading and colours but based on observations across several channels they are also much less often used. When used as a reply with no accompanying text, all emojis are easy to read and differentiate from each other. The exaggerated facial expressions especially on the cartoon characters make it easy to tell different emotions apart.

3.2 SInoALICE

SInoALICE is a mobile RPG developed by Pokelabo and published by Square Enix in June 2017 (Japan) and by Pokelabo in July 2020 (worldwide). It is a free-to-play gacha game where players collect characters and weapons to defeat enemies in collaborative fights with other players. SInoALICE Global has over a million installs in Google Play and an average rating of 4.4/5 in Google Play and 4.8/5 in App Store.

The most prominent features of SInoALICE are the detailed and delicately drawn characters. The story is character-driven, and they are featured in the icon, start-up loading screens and the home screen of the game. While different weapons are the defining aspect of player growth as the strength and development of a weapon directly correlates to player strength, characters are used as player avatars. Aside from a set amount of evolution steps, characters don't contribute to player growth and total points as much as weapons do. Currently there are sixteen main characters of which eleven are available in the global version.

3.2.1 Discord overview

SInoALICE Global Official is a verified server and has just over 23,000 members by November 2020. The server has 55 custom emojis, all of them non-animated. Each emoji has the same shape and dimensions and depicts the main characters with different emotions, reactions and supporting texts. The exact same emojis also appear inside the game, where they are used in battles and chats to quickly communicate with other players.

All the emojis are named simply based on the text or emotion they are portraying (:Thanks:, :Shocked:, :GoodWork: etc.), without an additional prefix that would label them specifically as SInoALICE emojis. Neither do they specify which character is featured in which emoji save for three, which all feature the game's two mascot characters Parrah and Noya.

3.2.2 Custom emoji loyalty to brand vs. usability in Discord

As the emojis are taken directly from the game, they are visually coherent with the art style and are easily recognisable as a part of SINOALICE brand for those familiar with the game. The delicate character art and a slightly washed out colour scheme with yellow undertones that are a part of the game's key visual identity are also featured in the emojis. The whole emoji roster is visible in Figure 14.

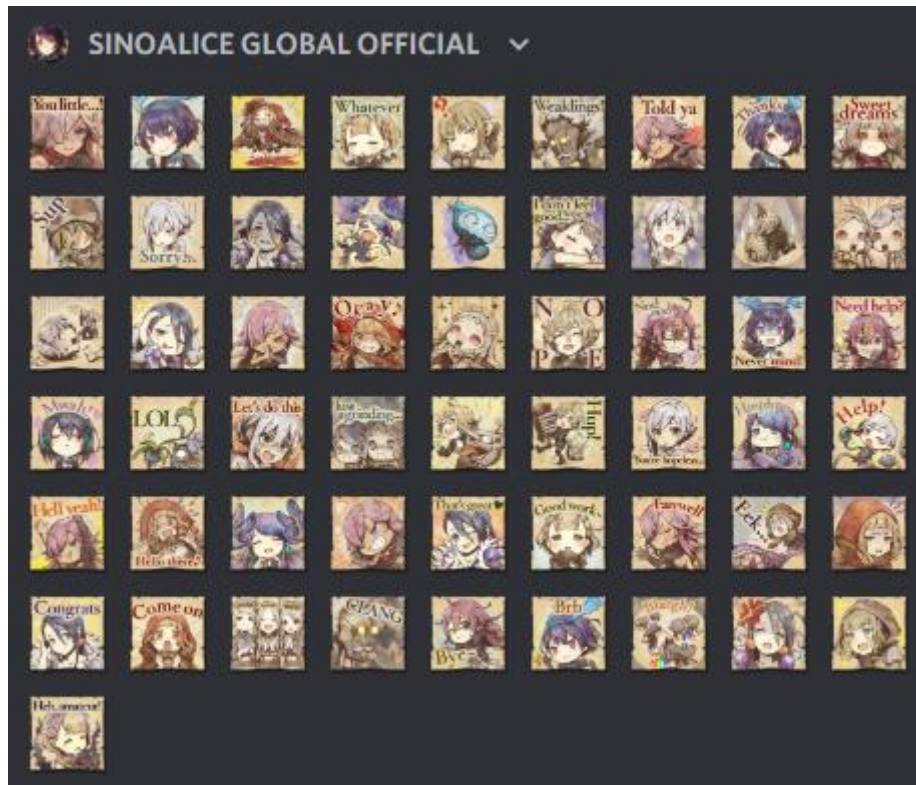


FIGURE 14. List of all SINOALICE Global's custom emojis

However, since the emojis were originally introduced as stickers for the in-game chat where they could be displayed in full size, they do not translate well into Discord. As shown above in Figure 14, the images are already small in the Emoji Picker. Figure 15 demonstrates how they look when they are used in Discord compared to how they were originally meant to be seen in the game. Both screenshots were taken on the same 1080 px wide phone. The detailed illustrations and uniform shape make the emojis hard to differentiate from each other and to tell immediately what emotion is being expressed.



FIGURE 15. SInoALICE emojis in Discord vs. in an in-game battle

This is an example of how an existing in-game asset that is taken from the game and inserted as an emoji as it might not be the best solution, as the readability in Discord has decreased significantly. Especially with a game like SInoALICE that features detailed character art with little contrast, most of the details get lost in the process when they are compressed.

3.3 Fall Guys

Fall Guys: Ultimate Knockout is a battle royale -style platformer game for Windows and Playstation 4 developed by Mediatonic and published by Devolver Digital in August 2020. The creators took inspiration from TV game shows like Wipeout and created a multiround obstacle course where up to 60 players can compete in until only one remains. By November 2020 the game has sold over ten million copies on Steam and has a score of 80/100 on Metacritic.

The player avatar, a customisable jellybean-like figure with a round face, dots for eyes and no mouth, is also the face of Fall Guys and the central point of all their advertising. From the beginning players could use in-game currency to purchase cosmetic skins to customise their character, and the game is constantly getting new skins as collaborations with other games as well as based on player suggestions and submissions.

3.3.1 Discord overview

Fall Guys has a verified Discord server with 286,500 members by November 2020. The server has 172 emojis in total of which 29 are animated. While 60% of the emojis are variations of the jellybean character or its face, the overall roster is a mixture of many things: icons and UI elements from the game, official logos, a set of the developer team’s faces (two of them are visible on the upper left corner in Figure 16), and a lot of memes that have been adapted into the Fall Guys style. Due to past harassment and use of offensive emojis against other users, the Fall Guys server does not allow users with Nitro service to use emojis from other servers.

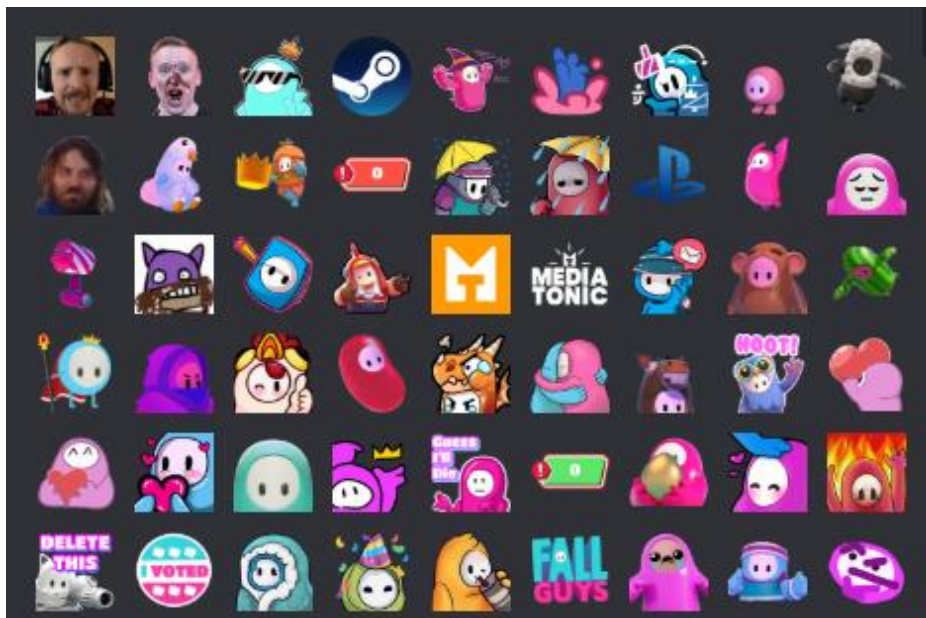


FIGURE 16. A sample of Fall Guys custom emojis

The naming does not follow a single convention but varies from names depicting only the emotion, to names starting with FG for Fall Guys, to different interpretations of the jellybean character’s name (most often written as “guy” with different prefixes to denote the emotion or context, e.g. :sheepguy:, :heartguy: etc). Some names have underscores, but not all of them. Only the team face emojis are grouped together with their common prefix “team”.

3.3.2 Custom emoji loyalty to brand vs. usability in Discord

Due to its simple design and striking pink colour, the non-customised jellybean guy is easy to recognise and adapt into an emoji format. With three main characteristics – the jellybean body, bright pink colour and round face with only eyes – any one of these characteristics can be changed or replaced, and the character still stays recognisable as part of the Fall Guys brand.

Although the emojis come in a variety of styles, they are mostly individually shaped and easily distinguishable from each other. Some of the emojis have details that get lost when they are compressed in size, but the main features stay easily readable.

3.3.3 Community-voted emojis

Fall Guys' custom emojis are not only a product from the developers, but a joint effort with the community. Shortly after the game was launched, moderators on the Fall Guys Discord server revealed monthly contests that started with an emoji contest in September 2020. For a month, members could submit their emoji designs and vote on other entries, and by the end of the month creators of the five most popular designs got assigned special roles in Discord and received exclusive downloadable content in the game. All the emojis in the top 20 were added to the server's custom emoji roster.

According to the moderator posts, although no concrete numbers were given, the contest proved to be very popular and gained a lot of participants, and it has been a monthly feature since. Contests where the participants will not only receive exclusive benefits but also get their designs featured are a good way to encourage the community members into interacting with the product and franchise more actively.

3.4 Main takeaways

Based on the three example servers above, the key to a successful set of branded emojis is to make the emojis easily recognizable as part a of the franchise yet different enough in silhouette so they can be distinguished from each other even in small scale. A consistent emoji roster is visually more appealing to look at but as proven in the case of SInoALICE, although the set is extremely well curated to the game's brand, making the emojis indistinguishable in shape renders them useless when they are compressed in the smallest size.

The benchmarking also proved that emojis don't need to be exact copies of their in-game counterparts to be recognisable as part of the brand. In fact, in the case of Clash Royale, the in-game renders were the hardest ones to read when they were used as emojis. Instead when they adapted their characters into their cartoon UI style, the emojis became easier to read whilst staying connected to the game's world.

The third takeaway is the expressiveness of the emojis and how different emotions can be told apart from each other. In case of characters with facial features, it is good to exaggerate the expressions in order to make the emotion easy to read and differentiate from others. Another popular way to increase the expressiveness, especially in the case of Fall Guys where the character does not have expressive facial features, is the incorporation of memes. Meme emojis can be very popular and increase user engagement in the server, so it is worth keeping in mind for the Dice Hunter emojis as well.

4 SENTIMENT ANALYSIS

4.1 Dice Hunter community in Discord

The official Discord server for Dice Hunter was created in December 2019 and has been active since. By November 2020 there are 1070 members in the server in the roles of developers/admins, beta testers and Dicemancers, a special name given for the other members. According to server insights, the server has been steadily growing since the beginning of August (Figure 17) and presumably that has been the trend since its creation.

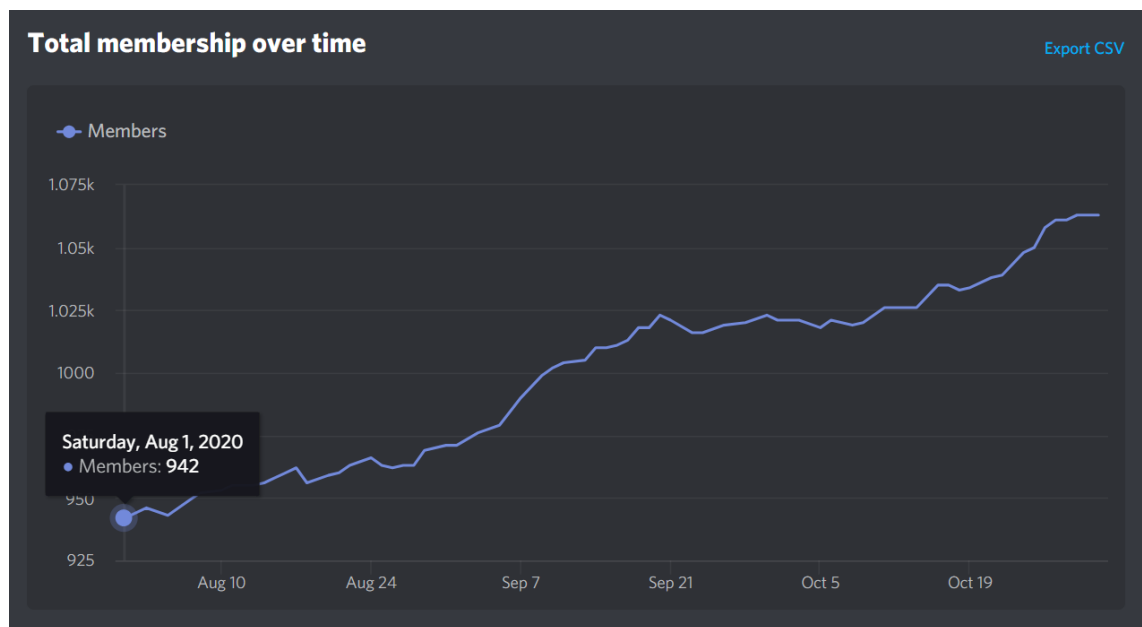


FIGURE 17. Total membership growth of the Dice Hunter Discord server within the past three months

In total there are 18 channels on the server of which 12 are for anyone to post in, three are for rules, announcement and system messages, two for only specified members and one for the admins. Out of all the channels, #announcements has the most readers as it contains information about new updates in the game, events and other important messages from the admins and usually includes tagging every member on the server to get their attention. The second most popular channels are #general-chat and #suggestions which both have the most readers out of all the open channels, as well as the most messages.

Although the DH server is much smaller compared to many other official mobile game servers like Clash Royale or SInoALICE Global, it is fairly active with an average of 62,25 messages sent every day based on the server insights. Member activity is encouraged by an experience point (XP) system where each sent message counts for one point and by earning enough points members can partake in a monthly raffle. The XP system has been active since June 2020 and is reset in the end of each month.

4.2 Analysing the chat

In order to get a better understanding of emoji usage within the Dice Hunter server and in specific which emojis are used the most for reacting and replying, all the emojis used by both admins and other members were counted and marked up. Since the server has been active for less than a year, all messages and reactions between December 1st, 2019 and October 31st, 2020 were included in the count.

As members can react only once per message and per different emoji, all reactions within the time frame were counted. However, with replies the counting was less exact as members could include the same emoji repeatedly within one message. In case of a repeated emoji only the first one was accounted to represent an instance of that emoji being used, and if the message had the same emoji but with text in between, they were counted separately (Figure 18).

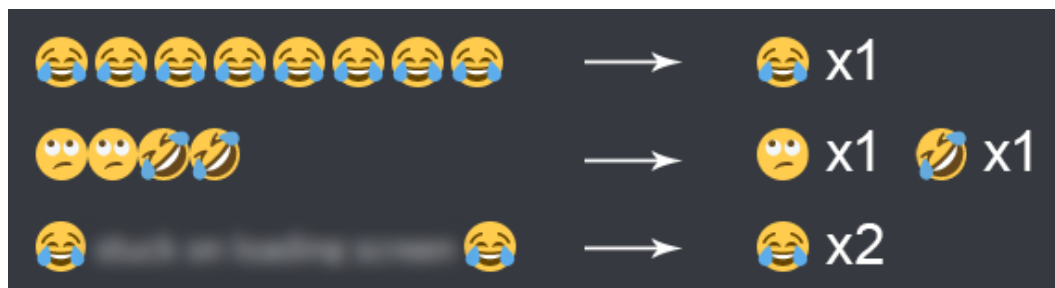


FIGURE 18. The counting logic for multiple emojis within one message

After all the emojis had been counted and marked in separate spreadsheets for reactions and replies, the results were organised by total instances with the highest numbers on top. Emojis portraying similar emotions, like :joy: (😄) and :rofl: (😂), were grouped and counted together.

4.2.1 Reactions

In total there were 2,503 reactions to messages across all channels. Over one fifth of the reactions with 554 instances was the thumbs up emojis, and it was most often used to react to announcements, admin answers and other admin messages. The remaining emojis had less than 200 instances each, the top four being the laughing with tears of joy/rolling on the floor laughing emojis used 173 times, both the frog and the raised pinkie, index finger and thumb emojis used 136 times and the party hat emoji used 124 times. Each of the emojis used more than twenty times are listed in Figure 19. Orc and Minion are Dice Hunter's original server-specific emojis that were taken directly from the game and added as emojis when the server was created.

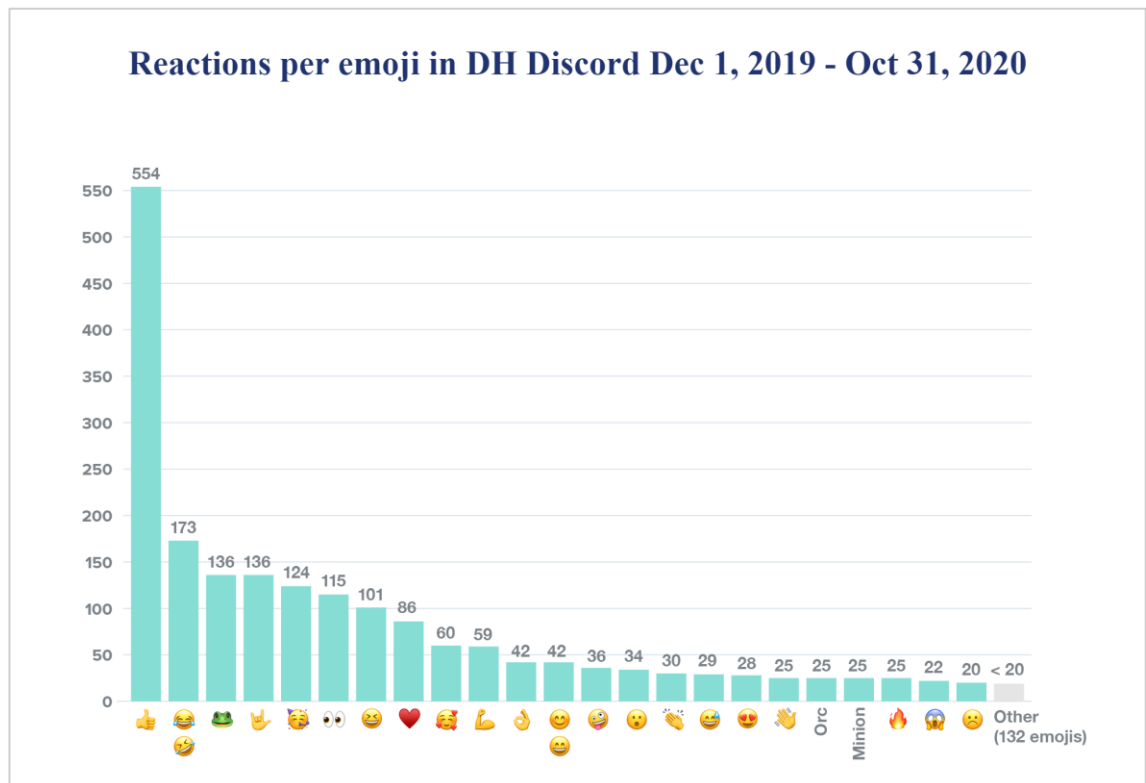


FIGURE 19. Emojis used as reactions for more than twenty times

Emoji descriptions in their order of appearance in Figure 19:

- thumbs up
- laughing with tears of joy/rolling on the floor laughing face
- frog
- raised pinkie, index finger and thumb
- party hat face
- eyes
- laughing with crossed eyes face
- heart
- hearts around face
- flexing arm
- hand with index finger and thumb touching/OK sign
- smiling/laughing face
- joking face
- surprised/astonished face
- clapping hands
- sweat drop on forehead face
- heart eyes face
- waving hand
- Orc
- Minion
- flame
- shocked/screaming face
- unimpressed face.

Based on the reactions alone, a custom thumbs up emoji seemed to be a good starting point for the set of emojis as it was the standard for reacting. Even with several hundred less reactions than the thumbs up emoji, the laughing with tears of joy taking the second place was not surprising given it is the most used emoji. What was surprising, however, was the popularity of the frog emoji with the third most uses. Players used the frog emoji to denote Toad, one of the characters in Dice Hunter, speaking of the character's popularity among users.

4.2.2 Replies

As the accounting of emojis used within replies was less precise, the total amount was approximately 2,560 used emojis across all channels. Unlike with reactions, the thumbs up emoji was used much less and the responses were instead dominated by emojis displaying different emotions: smiling/laughing emoji was used in 474 instances, laughing with tears of joy/rolling on the floor laughing in 419 instances, both excited laughter and grinning face with sweat in 163 instances and tongue out in 140 instances. The rest of the emojis that were used in more than 20 instances are displayed in Figure 20.

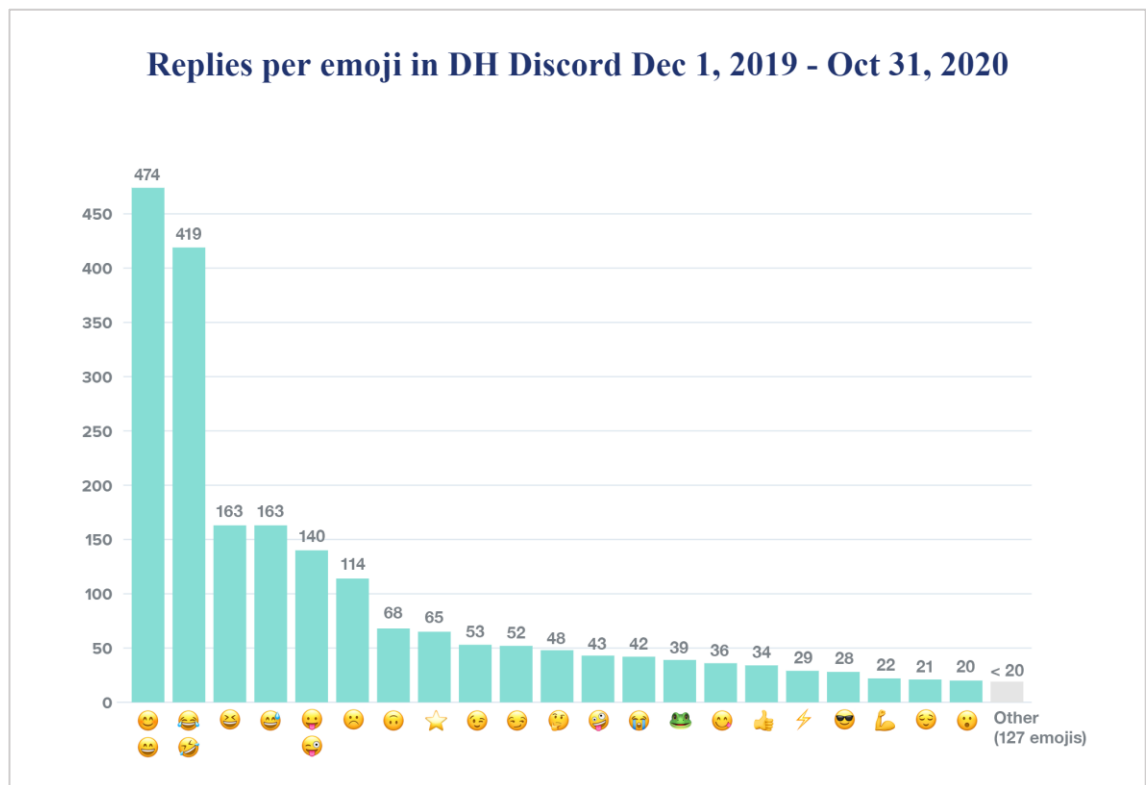


FIGURE 20. Emojis used in replies for more than twenty times

Emoji descriptions in their order of appearance in Figure 20:

- smiling/laughing face
- laughing with tears of joy/rolling on the floor laughing face
- laughing with crossed eyes face
- sweat drop on forehead face
- tongue out face
- unimpressed face

- upside down face
- star
- winking face
- smug/sideways smiling face
- thinking with hand on chin face
- joking face
- crying face
- frog
- tongue on cheek face
- thumbs up
- lightning bolt
- sunglasses face
- flexing arm
- relieved face
- surprised/astonished face.

Quite surprisingly compared to the reaction results in 4.2.1, the thumbs up emoji was much less used as a reply, although it still made it to the list of more than twenty replies. The reply results proved a greater need for emojis depicting different facial expression, once again leading the list with the laughing with tears of joy just barely behind a regular smiling/laughing emoji.

4.3 Voiced requests and other findings

Besides the analysis based on what emojis were used the most as reactions and responses, there were also messages stating either a request or a wish for specific emojis. These messages were from both admins and other members and had occurred since the creation of the server. These requests were counted as one part of the sentiment analysis.

The three most requested emojis were hearts (❤️), folded hands (🙏) and different expressions displayed on the Bonehead character, the last one aligning with the reply results. The consensus was that there would need to be a custom emoji

for thanking the players and developers for their nice comments, feedback and contributions.

A closer look to player messages especially in channels dedicated to tactics showed the need for four emojis corresponding the four symbols displayed in the Dice Hunter dice: sword (🗡️), shield (🛡️), star (⭐/🌟) and lightning (⚡). Though these were also used without the context of tactics discussion, most often they were used to illustrate symbol distributions in the dice, attack combos and dice evolution levels (Figure 21).



FIGURE 21. Examples of the dice symbols being used to discuss tactics

Finally, a thorough reading through the message histories brought up the need for one more custom emoji: a greeting for new members in the server. A common practice for the new members was to say hello when they joined the server, and often other members would greet them verbally or with a waving hand emoji.

4.4 Survey

While collecting the emoji usage data in Discord, a short survey was conducted in order to enquire users about their personal preference concerning custom emojis. A questionnaire was created using SurveyMonkey. It ran for 48 hours through a private link posted on the DH Discord server and consisted of 6+1 questions, the last question asking for DH user ID for reward giving purposes. Four of these questions were mandatory multiple-choice questions and the last

three were optional with an open reply field. The questionnaire is enclosed as Appendix 3.

The total runtime for the questionnaire was decided together with the DH marketing team and set short based on the observations from previous surveys that most replies would be given during the first day after publishing and any engagement after that would be low. The total number of responses in this questionnaire was 36, of which 33 were given within the first 18 hours.

The initial hypothesis, based on the benchmarking and the DH Discord analysis, was that while the first question would get quite similar results for all options, given there could be multiple answers, the most important features would be a variety in themes or characters, the majority would prefer static emojis with a few requests for animated ones, and the common reactions would either show a preference in custom emojis or not show much variation between the replies. As for the open answer questions, the hypothesis was that the respondents might hope for the thumbs up emojis, laughing variations, Toad and memes.

4.4.1 Results

The survey results proved to be quite useful in deciding what should be included in the first complete emoji set. Like the emoji usage analysis results in chapter 4.2, the first question “What do you mostly use custom emojis for? You can choose multiple” gained nearly equal number of votes for both reacting to messages and adding to the end of sentences with 27 and 23 votes respectively. The option for replying using only emojis got slightly less votes with 17 in total. The close results proved that the final emojis would need to be suited for all three purposes, meaning they would need to be distinguishable even in the smallest size.

The second question, “Which features do you find the most important in a set of custom emojis?”, showed more variation in the results and quite surprisingly left the option “variety in characters” clearly behind with only 3 votes (8,33%). “Variety in themes (e.g. characters, items, symbols from the game)” was slightly higher

with 6 votes (16,67%), the most popular option being “Variety in expressions” with 25 votes (69,44%). Two votes were given for “Other”, specifying their answers as “The ability to express a feeling” and “Don’t use emoji”. Although the result went against the initial hypothesis, they supported the emoji reply findings in 4.2.2, proving that a variety in expressions would be more crucial than a set of as many characters as possible.

The third question “Do you prefer static or animated emojis?” showed a clear disadvantage for animated emojis with only 4 votes (11,11%). Static emojis gained exactly half of the votes with 18, and “doesn’t make a difference” followed close behind with 14 votes (38,89%). Originally there had been talks with the DH marketing team for including animated emojis, but they were not a priority given only Discord Nitro users would be able to use them. With the survey results it was clear they would not be as essential as the static emojis.

The fourth question, “Do you prefer a default or a custom emoji for the most common reactions, e.g. – – “, was a near tie with “custom”, “default” and “doesn’t make a difference” each gaining 10 (27,78%), 12 (33,33%) and 14 (38,89%) votes respectively. Each of the respondents who voted for custom reactions also replied to the follow-up question “– – which common reactions/emojis do you think should be available as Dice Hunter custom emojis?”, and the responses are recorded in Figure 22. The emoji responses in their order of appearance are:

- tick/check
- cross
- sweat drop on forehead face
- heart eyes face
- unimpressed face
- flexing arm
- hand with raised pinkie, index finger and thumb.

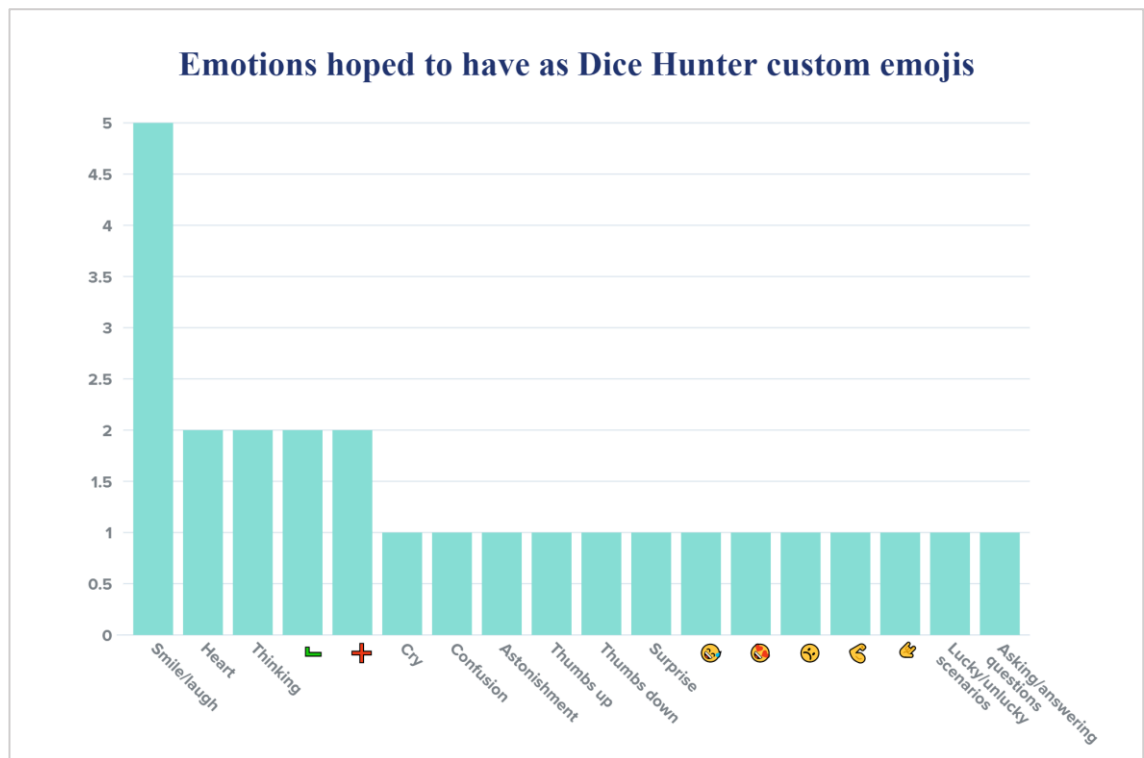


FIGURE 22. Emotions and emojis hoped to have as custom emojis

While the different facial expressions (smile/laugh, cry, confusion etc.), heart and thumbs up emojis were expected based on the chat analysis, the enquiry for tick and cross were a surprise. Out of all the answers there were two that were not so clear in their meaning: “[reactions] for lucky/unlucky scenarios” and “[emojis] for asking/answering questions”.

Finally, 28 responses were left on the sixth question “Is there any particular Dice Hunter character you would like to have as a custom emoji?” and the results are listed in Figure 23. Four of the respondents replied “No [there is not]”, while multiple respondents wrote more than one character in their response.

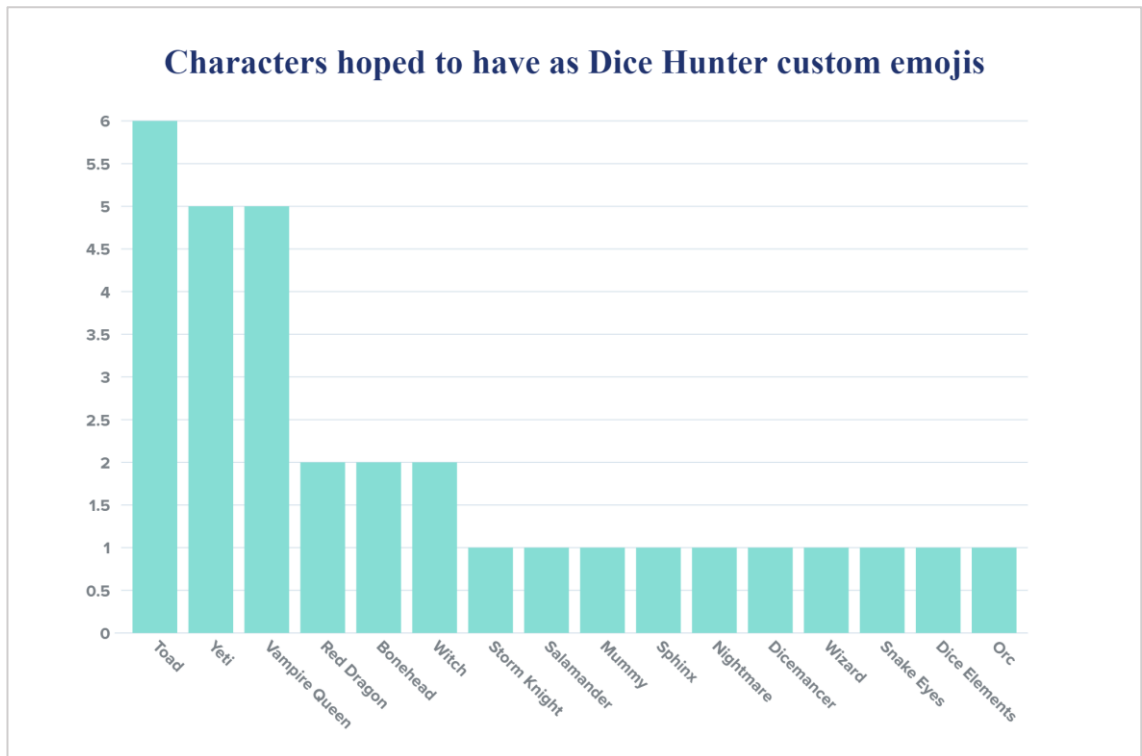


FIGURE 23. Dice Hunter characters hoped to have as custom emojis

As expected, Toad was the most requested character with six votes in total, followed immediately by Yeti and Vampire Queen with five votes each. The rest of the characters got two votes at maximum. One respondent brought up the five dice element symbols. Based on these results, the three most requested characters would to be included in the set, and the rest of the character-based emojis could be chosen from the other responses or other characters, that would fit a certain emotion.

5 PRACTICAL APPLICATION

5.1 Set of requirements based on research

Based on the results from the theory, benchmarking and sentiment analysis, the main requirements for a functional set of custom emojis were

- consistency in style but with enough variation in silhouette
- a wide enough range of emotions and facial expressions
- an appropriate level of detail with essential details highlighted
- readability even in the smallest size
- understanding of the brand's visual identity and simplifying it successfully.

Additionally, the emojis should be created in the same document that would correspond to their destination to ensure both their visibility and their coherency as a set. Instead of creating a set of as many different character avatars as possible, the set should concentrate on the expression of emotions and use the characters to amplify those expressions. Based on both the chat analysis and the player responses, the set should also include a certain number of symbols from the game, like the element and dice symbols.

5.2 Producing a custom set of emojis for Dice Hunter

Once the requirements had been clarified, the production of the emojis could begin. They were created in Adobe Photoshop, where the first pass was drawn with a pixel brush and the final versions were made into vectors shapes with the pen and shape tools. All emojis were initially sketched on a 965x695 px canvas that had two background colour layers that could be hidden when needed, one corresponding to Discord's dark mode and one to light mode. Each emoji had their own 128x128 px frame that were arranged into a grid similar to Discord's Emoji Picker to ensure that they would stay within the maximum size limit from the start and could be viewed as close to how they would show when finished.

The creation process included a first pass of character and expression tests that were sent to the marketing team for feedback, adjustment of the amount and distribution based on said feedback, creation of a dummy Discord server for testing purposes and finally sending the corrected set to the rest of the company for an overall response. After the first feedback round, when the pixel sketches were refined into vector graphics, each emoji was saved as a separate PSD file but linked back in the original grid file so the Emoji Picker mockup would be updated in real time while still working on separate files.

5.2.1 First iteration round

The first round was purposefully rough and concentrated on testing out the simplification method for the characters, as well as the different expressions that could be implemented. The first pass consisted of 31 sketches and four written ideas that had not yet been turned into sketches. Figure 24 displays the list that was sent to the marketing team for feedback. The first row and the thumbs up/thumbs down emojis were taken directly from the project and inserted as they were.



FIGURE 24. First version of the emoji roster

Based on the feedback, the roster could have multiple Boneheads (rows 2 and 3) displaying different emotions, but the same treatment should not be given to the other characters, in this case Orc (row 4, columns 4–7) with four different expressions of which two were shared with Yeti (row 4, columns 2–3) and Kraken (row 5, column 6). Toad (row 3, columns 2–3) could have two expressions both due to its popularity and the fact that it could portray two different tongue-out expressions, but the other characters should be reduced to one variation per character. The lack of clearly laughing and smiling emojis was criticised, as well some of the Bonehead emotions were questioned (was the blushing Bonehead happy or embarrassed? Was the laughing Bonehead laughing in joy or in sadness?)

Another point of feedback was the simplification of the Bonehead emojis and whether they could hold more detail, as there was a disconnect in the level of detail between them and the other emojis. After the feedback the Bonehead underwent a few iterations with varying dents, chips and shadows. They were also the least visible emojis on a white background, so they needed an outline that would not make them blurry on dark mode, but also not glare on light mode. After several iterations the outline was settled into a 3 px wide line in a slightly darker grey than the Bonehead's outer colour (Figure 25).



FIGURE 25. The development of the Bonehead emoji

5.2.2 Amount

While the feedback was being processed, the amount was also put under consideration. The original agreement with the client had been a set of 20 emojis that

would be created and implemented as a part of the thesis. However, after analysing both the Discord message history and the survey results, it was clear that a certain number of symbols and icons from the game would need to be included as well. As those symbols and icons could either be implemented directly as they were or with minimal changes, it felt redundant for the creation process to include them in the preapproved set of 20 emojis.

After a discussion with the client the final amount was raised to 36 to include 16 pre-existing and 20 brand new icons. The pre-existing icons would include

- four dice symbols (sword, shield, star and lightning)
- five element symbols (fire, water, earth, air and misfortune)
- heart
- diamond
- gold coin
- check (✓) and cross (✗)
- thumbs up and thumbs down.

5.2.3 Choosing characters and emotions

Based on the feedback and earlier ideas, the amount of Yeti and Orc variations was reduced to one of each, while Red Dragon and Mummy were added, and Kraken and Panda discarded. The resulting roster corresponded better to the player responses in 4.4.1, where Toad, Yeti, Vampire Queen and Red Dragon were the most hoped for characters with Mummy, Wizard and Orc following behind.

Each character was matched with an emotion that would reflect their personality or look in Dice Hunter. Since Toads would eat anything with their massive tongue, that was emphasized as their primary detail. On the other hand, Orcs screamed when they attacked, so the emoji version was an exaggerated version of that screaming expression, and Mummy with its scarce teeth and large mouth made it the prime candidate for a wide laugh.

5.2.4 Polishing and proofing

When the final character and symbol lineup was complete, each sketch was reproduced as a vector version in order to sharpen up the details and enable simple rescaling for the future, and polished to match the tactile feel of Dice Hunter but in a simpler format. The pre-existing symbol graphics were edited as needed to match the rest of the set, either by simplifying the details or by adding stronger highlights.

One of the questions that had been up since the benchmarking with Clash Royale was the question of outlines and if the DH emojis should also adopt the cartoony style used in CR. However, since Clash Royale's simplified emojis were based on the cartoon style used in their UI and Dice Hunter did not share a similar UI style, the outlines were discarded in favour of flat shadows and highlights that would amplify the feeling of a bulky fridge magnet.

Before the emojis could be implemented in the official Dice Hunter Discord server, they were proofed as a set on the test server for any last fixes and to see them in action both in the Emoji Picker and the chat. The proofing was done by posting the emojis in a random order both on their own and between sentences, as well as using them as reactions to messages. The proofing was done on both dark mode and light mode.

5.2.5 Naming & uploading to Discord

After the emoji pack had been finalised, they were each given an individual name that would both distinguish and organise them in the Emoji Picker. The names were created in a collaboration with the product owner/copywriter who corrected any possible mistakes with the names, for example correcting `:roll_star:` and `:roll_lightning:` into `:roll_luck:` and `:roll_magic:` to correspond the game's lore. Names were tested both with and without underscores, ultimately deciding to write them with an underscore for easier reading.

Originally the emojis were divided into three prefix categories to help organise them: DH_ for all symbols, elements and hand gestures, Bonehead_ for the Bonehead characters and [Charactername]_ for the other characters. While Boneheads and character names worked fine, the DH_ prefix still was not enough to keep the elements and symbols grouped together, so the final roster got two more prefix categories: Element_ for element symbols and Roll_ for dice symbols. The finalised emojis and their names are included as Appendix 4.

After final checks and approval from the client and the art director, the emojis were exported out as PNGs, named and uploaded to Dice Hunter's Discord server. Figure 26 shows their final order in the Emoji Picker with the two pre-existing emojis. Since Discord displays emojis in a reverse alphabetical order, the list begins with Yeti and other characters, ending with Boneheads.

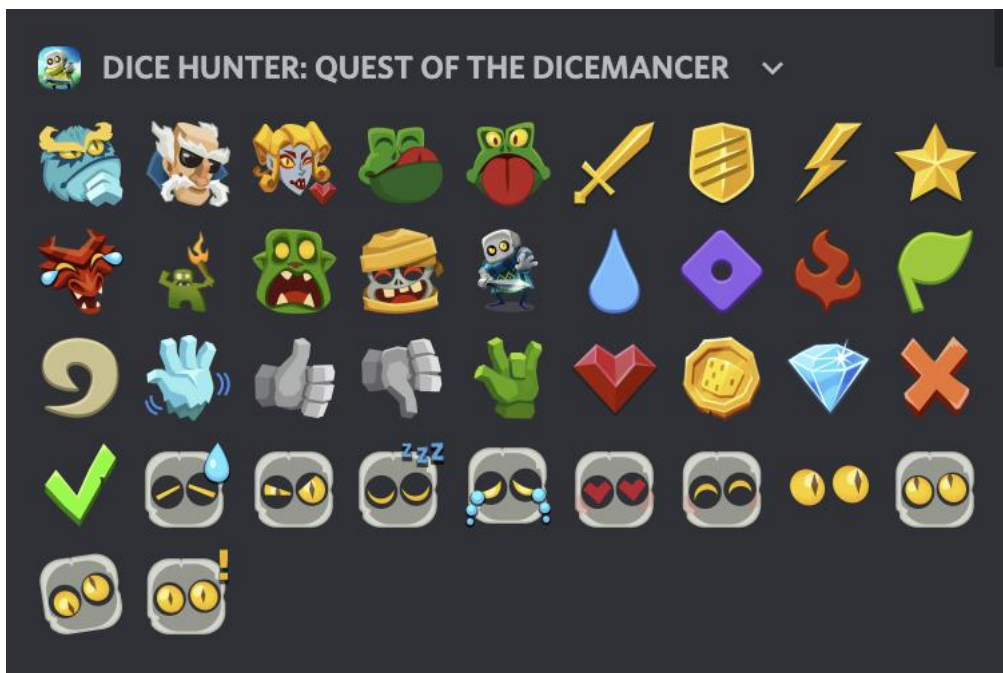


FIGURE 26. Finalised Dice Hunter emojis in Emoji Picker

5.2.6 Adaptation for other IM applications

At the same time with the Discord upload, Dice Hunter emojis were also uploaded to the company's communication workspace Slack for the developers to use. Both Discord and Slack had the same size restrictions for custom emojis and both

a light and dark mode, so the emojis did not need any adjustments before their implementation.

In the future, the emojis are planned to be implemented to other VoIP/IM applications, namely WhatsApp, Telegram and Viber. As each of these platforms support custom stickers instead of custom emojis, the Dice Hunter emojis will need to be adjusted in size and detail to match the requirements.

Both WhatsApp and Telegram require 512x512 px size for the stickers, while in Viber the required size is 490x490 px. WhatsApp also requests a white border around each sticker. There are also limitations to the sticker pack sizes as WhatsApp caps the amount at 30 and Viber at 24. Telegram does not have a limit for the amount. Finally, since the stickers are much larger in size than the original emojis, the images can be more detailed. The level of detail for the stickers will need to be re-evaluated with the Dice Hunter team and further tested to reach a satisfying result.

6 DISCUSSION

Since their introduction to the West and especially their addition to the Oxford Dictionary's Word of the Year award winners list in 2015, emojis have been the object of much research and debate. What started as data-saving option for sending funny images between cell phones in the late 1990s has now become a stable part of everyday online communication and a way to express emotions without the aid of a physical body. Whether or not emojis are an accurate representation of one's emotions is up for debate, but one thing is for sure: They are here to stay.

The goal of this thesis was to study the expression of one's emotions online and how it relates to the use of emojis, and to attain the basic knowledge of icon creation that was needed to produce a cohesive set of emojis the would not only accurately express a wide enough range of emotions, but clearly be a part of the Dice Hunter brand. With the help of a thorough analysis on the Dice Hunter community's emoji preferences and usage history as well as a competitor analysis, the goal was reached and a set of 20 new emojis + 16 modified symbols from the game was created.

A key part in the creation process was the understanding of what makes a brand what it is, and how that can be maintained even if the style is simplified. Equally important was the creation of the emojis as a set, not as individual pictures, so the final product would be a concise, matching set. The sentiment analysis part proved that when designing a product for an audience, it is important to listen to the audience's thoughts and opinions before making final decisions of what should be included in a set, as the community proved the need for different emotions over different characters.

Although the project part of this thesis was very specific and client-based, the knowledge gained in the theory part as well as the findings from the different analyses can be utilised in future projects where something brand-oriented needs to be created without directly utilising the existing assets.

REFERENCES

Adding Emojis and Reactions. 2020. Discord Help Center. Edited on 5.6.2020. Read on 7.11.2020.

<https://support.discord.com/hc/en-us/articles/360041139231-Adding-Emojis-and-Reactions>

Beneito-Montagut, R. 2017. Emotions, Everyday Life, and the Social Web: Age, Gender, and Social Web Engagement Effects on Online Emotional Expression. Article. *Sociological Research Online* 22 (4), 87–104. Read on 1.11.2020. Requires access right.

<https://journals.sagepub.com/doi/10.1177/1360780417732955>

Burge, J. 2019. Correcting the Record on the First Emoji Set. Blog post. Emojipedia. Written on 8.3.2019. Read on 5.11.2020. <https://blog.emojipedia.org/correcting-the-record-on-the-first-emoji-set/>

Cambridge Dictionary. N.d. Read on 7.11.2020. <https://dictionary.cambridge.org/dictionary/english/pictogram>

Citron, J. N.d. From One Video Game to a Community of Millions: How Discord Evolves. Spark Capital. Read on 7.11.2020. <https://www.sparkcapital.com/the-creators-story/from-one-video-game-to-a-community-of-millions-how-discord-evolves>

De Seta, G. 2018. Biaoqing: The circulation of emoticons, emoji, stickers, and custom images on Chinese digital media platforms. Article. *First Monday* 23 (9). Published on 1.9.2018. Read on 5.11.2020.

<https://firstmonday.org/article/view/9391/7566>

Dice Hunter: Quest of the Dicemancer. N.d. Facebook page. Read on 10.11.2020. https://www.facebook.com/dicemancer/?ref=page_internal

Dresner, E. & Herring, S. 2010. Functions of the Nonverbal in CMC: Emoticons and Illocutionary Force. Article. *Communication Theory* 20 (3), 249–268. Read on 1.11.2020. Requires access right.

<http://libproxy.tuni.fi/login?url=https://search.ebscohost.com/login.aspx?direct=true&AuthType=cookie,ip,uid&db=ufh&AN=52358582&site=ehost-live&scope=site>

Emoji Counts, v13.0. 2020. Unicode Inc. Updated on 23.7.2020. Read on 5.11.2020. <https://unicode.org/emoji/charts-13.0/emoji-counts.html>

Giannoulis, E. & Wilde, L. 2020. Emoticons, Kaomoji and Emoji: The Transformation of Communication in the Digital Age. In Giannoulis, E. & Wilde, L. (ed.) 2020. *Emoticons, Kaomoji and Emoji: The Transformation of Communication in the Digital Age*, 1–22. 1st edition. New York: Routledge.

Hicks, J. 2011. *The Icon Handbook*. Penarth: Five Simple Steps.

Honkimäki, H. Art Director in Greener Grass Company. 2019. Project briefing on fall 2019. Briefing received by Vaarala, P. Tampere.

Marks, T. 2016. One year after its launch, Discord is the best VoIP service available. PC Gamer. Published on 13.5.2016. Read on 7.11.2020. <https://www.pcgamer.com/one-year-after-its-launch-discord-is-the-best-voip-service-available/>

Matsuda, R. 2020. Construction of Iconicity in Scenes of Kaomoji. In Giannoulis, E. & Wilde, L. (ed.) 2020. Emoticons, Kaomoji and Emoji: The Transformation of Communication in the Digital Age, 197–207. 1st edition. New York: Routledge.

McCulloch, G. 2019. Because Internet: Understanding the New Rules of Language. New York: Riverhead Books.

Murphy, J. 2017. Make online messaging personal by embracing the nonverbal. Article. Inside Intercom. Published on 6.11.2017. Read on 1.11.2020. <https://www.intercom.com/blog/online-messaging-personal-embrace-nonverbal/>

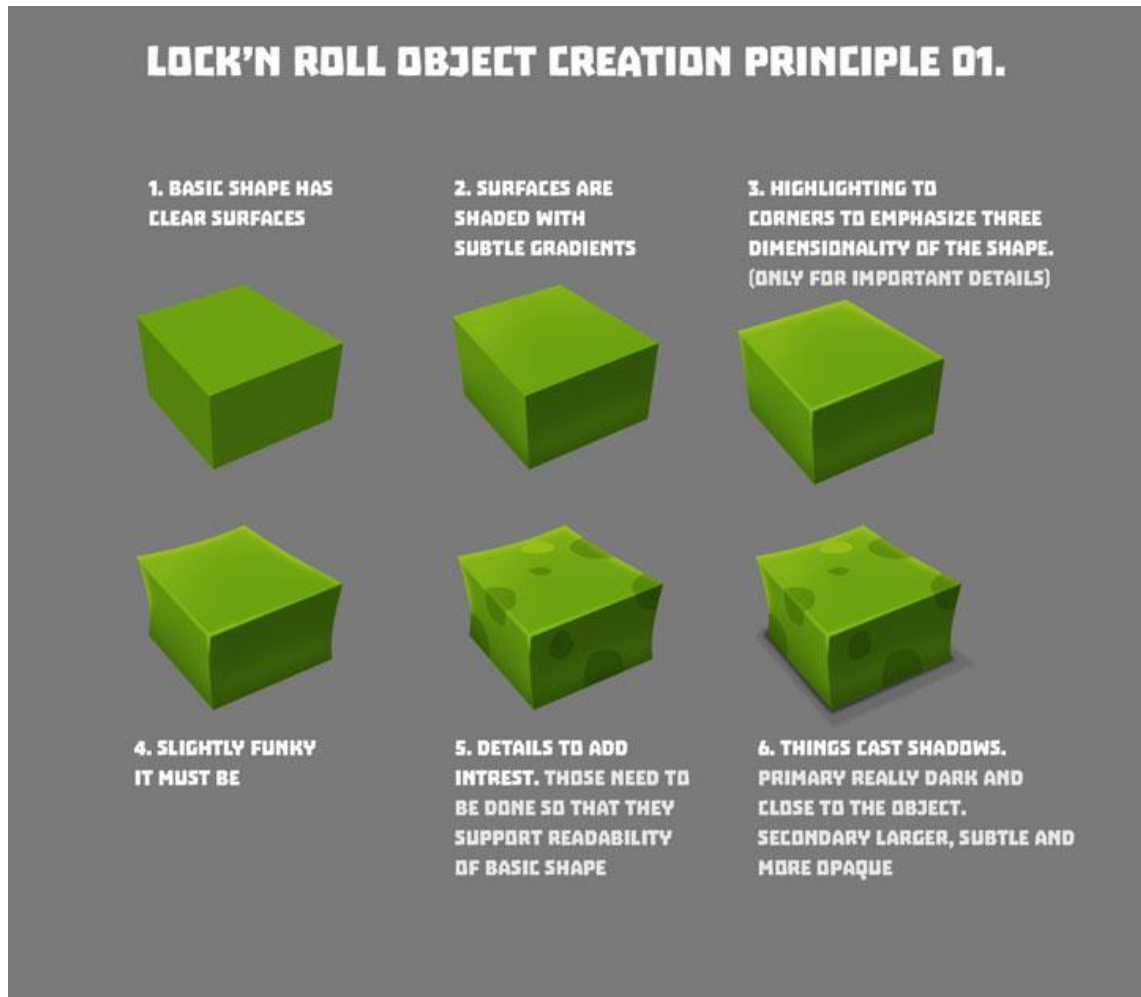
Patterson, S. N.d. The Benefits Of Working With 16-Bit Images In Photoshop. Online tutorial. Photoshop Essentials. Read on 10.11.2020. <https://www.photoshopesentials.com/essentials/16-bit/>

Russell, J. 2013. Stickers: From Japanese craze to global mobile messaging phenomenon. Article. The Next Web. Published on 12.7.2013. Read on 5.11.2020. <https://thenextweb.com/asia/2013/07/12/stickers/>

Yeung, K. 2013. Facebook brings stickers to its Messages feature on the Web. Article. The Next Web. Published on 3.6.2013. Read on 5.11.2020. <https://thenextweb.com/facebook/2013/07/02/facebook-brings-its-stickers-to-its-messages-feature-on-the-web/>

APPENDICES

Appendix 1. Dice Hunter style guide 1 (2)



Source: Greener Grass Company, 2015.

Appendix 2. Dice Hunter style guide 2 (2)

Lock 'n Roll Pelilautahahmot

Väripaletti, 2 pääväriä, 1 aksentoiva tehosteväri jos on tarpeen + neutraalit (harmaat, ruskea sävyt) vapaasti käytössä.

Varjostuksen tapa: huippukiiltojen käyttö nostamaan jyrkkiä kulmia "ulos" hahmosta, valon suunta ylhäältä, käytetään suht jyrkkiä varjo linjoja tuomaan rakennetta pintoihin.

Muotokieli, korostetun jyrkkiä kulmia yhdistettynä pehmeään kaarteeseen (kaarteen tuntu liukuvilla varjostuksilla).

Silmät: rajaus, kiilto, hohde.



Poseeraukset: neutraali, hyökkäys (viritys iskuun), isku.

Halutaan **ilmeet**: Neutraali, oh shit (hämmästyys, epäusko, säikähdys), vahingonilo (lällälää).

Aseen korostus, liitoitelemalla syvyys perspektiiviä/kulmaa.

Päälliköllä on persoonallisia yksityiskohtia/ilmeitä/45 asteen pose.

Kätyri kuvattu suoraan edestä, tarkoituksella persoonattomampi (vähemmän yksityiskohtia) siten että niitä voi olla monta vierekkäin (vrt. kloonisoturit).

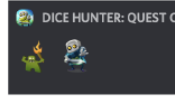
Asemointi suhteessa pohjalaataan. Kätyreillä pää keskellä, pomo voi olla vapautuneesti vankyrällä tarpeiden mukaan.

Source: Greener Grass Company, 2015.

Appendix 3. Dice Hunter: Custom Emojis for Discord questionnaire

Dice Hunter: Custom Emojis for Discord

Custom emojis are special emojis that each Discord server can have - like our Orc and Minion here!



The purpose of this questionnaire is to map out our players' emoji preferences and create the first official custom emoji pack for the Dice Hunter Discord server.

* 1. What do you mostly use custom emojis for? You can choose multiple.

- Add to the end of your sentence
- Reply using only emojis
- React to messages

* 2. Which features do you find the most important in a set of custom emojis?

- Variety in characters
- Variety in expressions
- Variety in themes (e.g. characters, items, symbols from the game...)
- Other (please specify)

* 3. Do you prefer static or animated emojis?

- Static / non-animated
- Animated
- Doesn't make a difference

* 4. Do you prefer a default or a custom emoji for the most common reactions, e.g. thumbs up, thumbs down, heart?

- Default
- Custom
- Doesn't make a difference

5. If you answered "custom" to the previous question, which common reactions/emojis do you think should be available as Dice Hunter custom emojis?

6. Is there any particular Dice Hunter character you would like to have as a custom emoji?

7. Thank you for your answers! To receive your reward, please fill in your Dice Hunter user ID:

Done

Powered by
 SurveyMonkey
 See how easy it is to create a survey.

[Privacy & Cookie Policy](#)

Appendix 4. Finalised emoji roster with names

