Dynamic Visual Identities: Fundamental Principles of Their Design

Pedro Fonte, Nuno Martins, Daniel Raposo, and Leonardo Pereira

Abstract This article analyzes Dynamic Visual Identities (DVI) intending to present a set of principles that designers should take into account when designing such systems. It starts with a literature review, approaching a set of reference authors, to clarify the key concepts around the DVI; its relationship with brands, brand identities, visual identity systems; the socio-historical context that leads to the expansion of dynamic identities; the typology of DVI constructions, categorizing them and demonstrating some of their guiding and structural principles in their construction. A chronological overview of some pioneering DVI systems that introduced mechanisms designed for dynamism is also presented. Finally, based on the study carried out, the main potentialities and risks in the use of the DVI are presented and a set of principles to be taken into account in its design are identified.

Keywords Dynamic visual identities · Logo design · Brand identity

P. Fonte
School of Design, Polytechnic Institute of Cavado and Ave, Barcelos, Portugal

N. Martins (✉)
Research Institute for Design, Media and Culture, School of Design, Polytechnic Institute of Cávado and Ave, Barcelos, Portugal
e-mail: nmartins@ipca.pt

D. Raposo
Research Centre for Architecture, Urbanism and Design, Polytechnic Institute of Castelo Branco, Castelo Branco, Portugal

L. Pereira
DigiMedia, Department of Communication and Art, University of Aveiro, Campus Universitário de Santiago, 3810-193 Aveiro, Portugal

N. Martins and D. Raposo (eds.), *Communication Design and Branding*,
Springer Series in Design and Innovation 32,
https://doi.org/10.1007/978-3-031-35385-7_3

1 Dynamic Visual Identities

1.1 Context

Since the late 1950s, there have been noticeable changes in the way brands present and communicate themselves. Factors such as technological advancements, distinct features of various media, and evolving market expectations have encouraged new types of relationships and altered the contexts in which brands operate. As a result, there has been a proliferation of new approaches to visual identities.

However, dynamic visual identities (DIV) approaches differ from conventional or traditional methods in several aspects. In the past, brands rationalized and controlled their presence in different media by standardizing and predicting their visual homogeneity [7]. The focus was on achieving easy recognition through consistent and predictable visual identity systems [1]. However, with the emergence of profound contextual changes, such as technological advancements, digital printing, the internet, new media, the customization, and transformations in brand communication needs, this rigid and standardized approach began to show its limitations. As a result, brands, companies, and institutions had to change their positioning to stand out in an increasingly competitive and media-saturated market. They sought to build stronger, lasting, and irreplaceable emotional connections with customers through various means [21]. Additionally, they used surprise tactics to draw attention and provoke consumers [14] as part of their overall strategy.

1.2 Brand Identity

The need to establish strong connections between brands and people has brought about a shift in visual identity systems. Brands and organizations have started to develop new strategies for creating identities that adapt to their own needs and those of their audiences, while reflecting the socio-historical context in which they operate [20]. However, this new context, not only created new needs, desires, and perspectives of the world, but also led to the evolution of techniques, styles, media, and platforms [6]. The evolution of media and platforms, in particular, was decisive for brands, as it provided access to a multitude of new touchpoints that increased brand recognition and loyalty among audiences and customers. This new type of presence crystallized the brand's identity, making it tangible and enabling more effective communication of differences, ideas, and meanings that appeal to the senses of consumers and users [21]. This is one of the reasons why design plays a crucial role in this context. It is essential for creating and constructing brands, not only because it can differentiate them from others, but also because it can incorporate and convey the intangible qualities that they aim to achieve through their identity systems to different types of consumers.

1.3 Dynamic Visual Identities

DVIs can have different names. In addition to the term used throughout the article, the following terminology has been identified: flexible visual identities [3], adaptive visual identities [4], and mutant brands [6]. However, regardless of the assigned name, there is broad agreement on certain traits that characterize them. For example, [5] distinguishes between two large groups of corporate visual identities: conventional and unconventional. The former is characterized by rigidity, standardization, and immutability, while the latter is characterized by flexibility and dynamism, indicating a new approach to construction and communication. Felsing [3] also refers to conventional ones as static (without variable components) and non-conventional or mutant ones as flexible (with variability based on the interaction between constant and variable elements). Budelmann et al. [1] refer to an earlier time when monolithic consistency was the prevailing wisdom to create recognizable and memorable identities, and to a later time, with stronger graphic identities that inaugurate a new trend of customization, as in the example of MTV.

These two major groups or ways of visual identity building, along with their logos, have led to a consensus on the characterization of temporal periods. In the first case, the period is described as modernist, and in the second as postmodernist. According to various authors, this change has been caused by profound contextual shifts that occurred during the transition from the 20th to the twenty-first century [6, 7]. Political, technological, and sociological changes, not only drove the development of new approaches to a visual identity that are more flexible, multifaceted, and fluid, but also transformed various features of brand communication, usage, relationships with audiences and consumers, performance contexts, and market expectations [1, 5, 19]. Irene [19] highlights successive technological, technical, and media evolutions, such as the strong expansion of the internet and its influence on markets and the global context, as the fundamental factors that have driven brands to behave like living organisms that are in constant adaptation.

Another common feature is found in the graphic standards manual. As an element that was part of the traditional identity construction process, it ensured that both brands and organizations adhered to established assumptions regarding the correct use and application of identities. The identity manual anticipated and regulated hypothetical behaviors that the brand would acquire in different physical supports and forms of contact with the public [7]. In traditional systems of visual identities, after designing the identity or logo [6, 7], the manual helped ensure the correct use of the brand, and consequently, its recognition and memorization [1, 8]. However, with the evolution and emergence of more flexible approaches to visual identities, this posture changed. The rigidity of the rules that the manual entailed was replaced by identity programs that prioritize variety through customization and personalization [1, 7].

The authors also identify the types of brands that adopt the strategy of dynamic visual identities to represent their companies or institutions [15]. These types of brands are mainly found in the cultural and public sectors [3], or more specifically,

in organizations such as galleries, public relations consultants, music companies, or brands associated with designers themselves, where creativity, experimentation, and the unexpected are valued [17]. Felsing [3] argues that the reason for this trend is related to the design process itself, including the variation process and the lack of control over the outcome, as well as the wide spectrum of variation and its complexity. These aspects make it difficult to recognize the connection between the different variations, which can pose enormous risks for organizations and their visual identities: they may become imperceptible or not memorable in the eyes of the public.

1.4 The Construction Processes of DVI

The analysis of the construction processes of DVI will focus on the perspective of three authors: Van Nes [19], Kreutz [6], and Felsing [3]. Van Nes [19] summarizes the brand's visual identity system in six components (and the connections they make between them): typography, imagery, logo, language, graphic elements, and color. However, she explains that to build a dynamic identity, one or more of these components must be of a variable nature and that it is through their manipulation that the flexibility of the identity will be determined. And she concludes that fixed components, through consistency, favor brand recognition, and variability gives it room to live and evolve.

Van Nes [19] classifies the construction of DVIs into six groups:

1. *Container*: approach the logo as a box or container that can constantly change its content. Manipulating a single variable, such as color or image, is enough to create great variety while still being recognizable;
2. *Wallpaper*: placing variables behind a constant logo. The general form varies, but the impression of a unique identity remains;
3. *DNA*: dynamic identities created from a set of pre-established "ingredients" that can be combined in different ways, each combination offering a different result;
4. *Formula*: instead of allowing the ingredients to form the core of the identity, the system is allowed to form its own content. Whether it's a grid or a set of rules, it forms a language, a formula, that unifies the whole;
5. *Customized*: addresses customization as a current fashion trend that allows the customer to interact and be part of the brand, or even own it. It is the first step in allowing the identity to reflect a certain sense of community, thus creating an emotional bond;
6. *Generative*: using computational techniques based on rule sets that allow identities to react to external data.

Kreutz [6], varying the form and nomenclature, subdivides Mutant visual identities into Programmed (a certain number of variations for a given period of time) and Poetic (spontaneous variations, without pre-defined rules and yielding to the creative

appeal of designers). However, concerning the construction process, it establishes the following stages:

1. Identify the nature/essence of the brand: each brand has its own vision of the world and its mission and designs its personality throughout its existence through its multimodal discourse;
2. Determine the desired brand perception: the organization needs to determine what image it wants the public to have of the brand;
3. Consider the desirable characteristics: the most recurrent of an VI are concept, originality, clear meaning, persuasive and memorable, usability (appropriate colors, suitable in black and white, suitable for vehicles, suitable for media, 3D renderable, pronounceable), and dynamism;
4. Determine the base VI: the function of the VI is the visual representation of the essence of the brand, that is, it must be the graphic synthesis of the organization's values and can contain: name, typography, symbol, and colors. It is the skeleton, the main identity subject to registration at the National Institute of Industrial Property (INPI), and from which mutations may arise;
5. Mutant (Dynamic) Characteristics: the most recurrent are fragmentation, color, typography, shape, name/word, and movement, among others;
6. Mutant Visual Identities Collections: sets of variations of an VI on the same theme;
7. Interactive field: opening given so that the public can interact with the brand. Interaction can be interpretive and/or appropriative (action of modifying the brand graphically).

Felsing [3] defines flexible visual identities by their ability to exhibit variability, context-dependency, processability, performativity, non-linearity, coherency, and variety. These characteristics can be present in varying degrees within visual identities. However, to attain a fully developed visual identity, several criteria must be fulfilled. One of the most prominent criteria is the incorporation of variation, which goes beyond mere form and instead reflects the organization's context-based content. Unlike static identities, which often rely on transposing symbolic or ideal values, conventions, or common symbols, a flexible visual identity delves into the analysis of the organization or context to explore its intrinsic and unique characteristics. This approach generates a "theme" or "idea" that guides the design principles and overall derivation of the visual identity. As Felsing [3, p. 225–226] asserts, a differentiated visual identity emerges when the organization's significant content, rather than general values or cliché ideas, is translated into a visual form. This concept is exemplified in the ERCO typographic logo, designed by Otl Aicher. The logo skillfully represents the organization's activity as a manufacturer of architectural lighting systems with discreet visibility by using four weights of the Univers font in descending order to depict the loss of light intensity with increasing distance. This principle is transferred to the typogram (see Fig. 1).

Aicher, by reproducing the typical behavior of light, transforms the brand's mark into something meaningful and gives the necessary substance to the identity, making it useful in building a quality experience in different media.

Fig. 1 ERCO visual identity (1976). *Source* https://medium.com/fgd1-the-archive/erco-1976-b7625d7829dc

Felsing [3] then describes the other two fundamental criteria for obtaining fully developed visual identities: a wide spectrum of variation—a basic design principle or theme that allows implementation in various forms of expression, dimensions or media, and differentiation—which creates tension in dynamic visual identities (which distinguishes, for example, between the association as a whole and its subsections; between permanent presence and temporary events; and between various communication channels).

With regard to building flexibility, Felsing [3] describes the following steps:

1. Content and external form: flexibility generated by the interaction between constant and variable elements. The outer shape, which can be a mask or a grid, is fixed and the content—the inner area—is variable, or vice versa;
2. Element and sequence (movement, change of perspective): representation of movement, which can take different forms, in visual identities; examples include animations, pulsating structures, illustrated or photographic sequences, and two- or three-dimensional photos;
3. Theme and variations (transformation): variation processes applied to unique signs of identity expression, such as size, shape, and color; degree of abstraction; and means of representation or communication;
4. Combinatorics (rapports, modules, elementary construction kits): the variability of identities is as dynamic as the variation of the elements that are reinforced by the combination;
5. Element and structure (permutation): identities that present a high number of variations of combined elements that can reach complex forms; generated by computer programs that play a central role in determining the sequence of signs, even if they are initially designed by hand;

6. Interaction (control factors, transfer, and open form): identities that dynamically incorporate in the design real-time processes or data; in these visual identities, organizations provide information about their activities while building their own identity; highly significant and authentic character signs.

Chronology and evolution of DVI. DVI systems have followed underlying evolutions in technologies, media, and processes. In the initial phase—between the industrial revolution and the Second World War—efforts were made to build solid reputations and, through the creative mechanisms of the VI system, facilitate the recognition or identification of companies and organizations [1]. From the mid-twentieth century (the 1950s), there was an increase in new DVI approaches.

Therefore, the consolidation of the idea of a Visual Identity Systems, based on coherence and uniformity, was largely due to the Olympic Games and multinationals companies or major brands. And alongside these, the embryo of Dynamic Visual Identities systems began still in printed media, before personal computers and internet, through brands such as Boîte à Musique (1959), the textile Albitex (1961), Hadfields Limited (1967), Prince Hotels (1968), Priba (1973); and on television with MTV (1981) and Nickelodeon (1984). However, DVI systems became associated with segmentation and technological and territory brands such as Google (1998), Optimus (2008), Melbourne City, Swisscom, Wook (2009), AOL (2010), edp (2011), New York City, Oi, Nordkyn (2012), è Bologna, MIT Media Lab, Porto City (2014), among many others [12].

Among them was Karl Gerstner's approach, defending systematic design and defining a design program as "a set of rules to construct a variety of visual solutions" [10, p. 125]. Gerstner's identity project for Boîte à Musique, from 1959, presented a system of elements that changed according to the context [10], which means that it was already a flexible system (see Fig. 2). The same approach was seen in the Zahn-Nopper store's DVI, designed by Anton Stankowski between 1961 and 1963, where the identity system was based on a programmatic approach to design. Lupton [10, p. 124] describes it as "using a limited set of elements to build diverse but genetically linked solutions" and "the system is not governed by a fixed logo, but by flexible constructive rules".

Another example worth mentioning is the Hadfields paint brand. The identity, elaborated by Wolff Ollins in 1966, already translates the concept of dynamic identity. As Siswanto and Dolah [16, p. 434] points out, "if we think that dynamic identity depends on digital and technology, this could be wrong" and he demonstrates this through the dynamic fox—the "mascot," in the author's words—which comes to live through the different poses it takes on each paint can (see Fig. 3). In the end, he concludes that dynamic identity is not a new concept and that a printed media can also be dynamic.

Next, we present the identity for MTV, developed by Manhattan Design in 1981 (see Fig. 4), where a variation system was established before the introduction of the concept itself [16]. Irene [19, p. 7] categorizes the identity as a container, structured in a system where 'M' and 'TV' have a fixed shape and position, but thousands of variations can be built through colors, patterns, textures, animations, and illustrations.

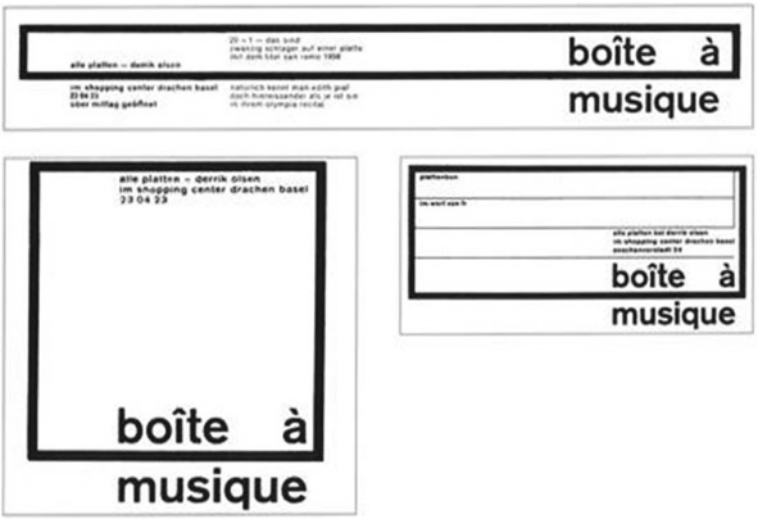

Fig. 2 Boîte à Musique (1959). *Source* https://www.underconsideration.com/speakup/archives/004431.html

Fig. 3 Identity for Hadfields (1966). *Source* https://www.londondesignfestival.com/stories/in-conversation-michael-wolff

However, despite all variations, visualizations, and changes in appearance—moving, changing, or transforming - it maintains consistency [16].

Continuing this timeline, we present the case of Walker Expanded, by Andrew Blauvelt, Chad Kloepfer, and Emmet Byrne (see Fig. 5), which in 2005 developed an identity that acts as a letter type: instead of using bold and italic, it groups related words or vocabularies and repeated patterns [7]. Felsing [3] categorizes this identity as 'Element and Structure: Permutation'.

Fig. 4 Variations of the MTV logo (1981). *Source* https://customneon.co.uk/logo-statistics/

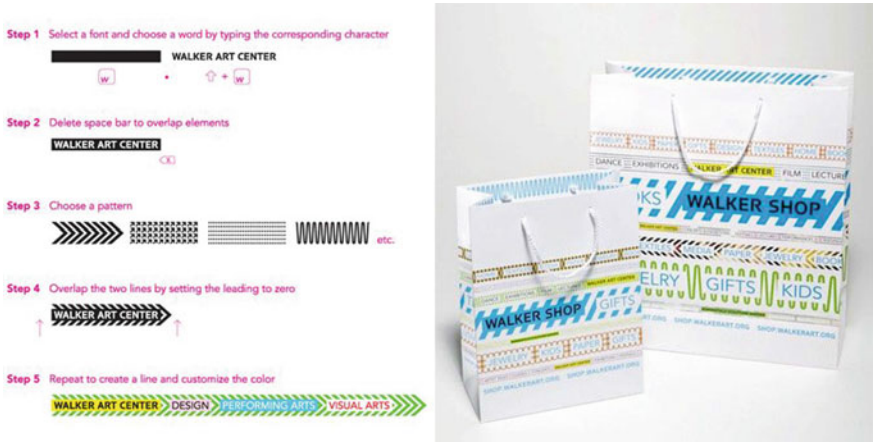

Fig. 5 Walker Expanded (2005). *Source* https://br.pinterest.com/pin

Finally, the logo of the Casa da Música, designed by Stefan Sagmeister, Matthias Ernstgerger, and Quentin Walesch in 2007, is presented (see Fig. 6). Here, the problem of representing the iconic building has been resolved by imitating the architectural shapes of different points of view, and a logo generation system was used to allow flexibility in the color application by the user and to allow the variation of themes from application to application or from media to media, like a chameleon [17], depending on the context [1].

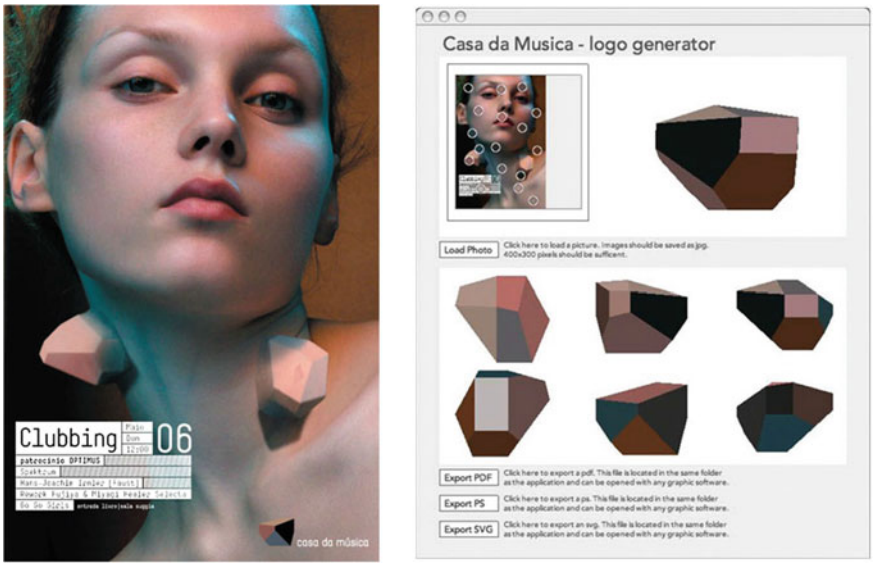

Fig. 6 Variations and application of the Casa da Música logo (2007). *Source* https://nevolution.typepad.com/theories/2011/03/casa-de-musica-contingent-solutions.html/

2 Potential Advantages and Risks of a DVI

As previously mentioned, in the conception and building of a DVI it's essential to maintain the consistency of the VI through the established coherence between its mutations/alterations, restricting some of the elements that compose it to certain rules, either through the way in which the change will be operated or through the behavior of some static elements [2, 3].

According to [3], for VIs to be easily recognizable and have characteristics that differentiate them from others, variable elements should refer only to specific content that can be changed, and static elements, as fundamental base elements, thus safeguarding the coherence of the identity itself.

Assuming these aspects are achieved, particularly in terms of consistency, the potential advantages and risks involved in creating and maintaining an DVI are listed in Table 1.

As for the qualities that can be added or the benefits that the use of an DVI can offer, the table highlights the constant renewal of the brand, the attribution of different functionalities, as many as possible, to the logos themselves (associated with content), as in the case of Nordkyn and Australian Design Radio. The dynamism provided by the variations can be more representative of the tone or spirit of the brand, and can contribute to greater visibility or prominence in different media, in addition to presenting greater adaptability and customization when answering to the target audience, granting space for user intervention in constructing identities, and, not least, the impossibility of determining limits for variations [1–3, 6, 21].

Table 1 Survey of the potential advantages and risks of DVIs

Advantages	Risks
The dynamic and flexible aspect of DVIs are factors that, by themselves (for example: through the transmission of new content), contribute to the constant renewal of the brand	The visual identity standards manual tends to oppose the concept of dynamism. Increase in the complexity of the design principles or guidelines and the need for brand centers
Versatility in assigning functionalities and content to brand marks	Greater difficulty in registering variations
The DVI system denotes greater permeability in capturing and representing the spirit of the brand	Greater complexity in the process of managing and applying brand marks
The impact of variation and the effects of surprise/novelty can generate greater interest or visibility in the media	Possibility of some lack of control over the result in generative and participatory VI
Adaptation and customization of responses to the target audience	Failures in the interpretation of results
Unlimited variations in the brand's discourse and visual language	Use of specific software
Flexibility in adapting to different media, platforms, and situations	Dissolution increases as the range of variation in VI grows; therefore, there is a risk of it becoming less recognizable and memorable
Greater ability to reflect changes and/or evolutions in the strategies of organizations and brands	
Openness to new interpretations (of the logo or brand mark)	
The variations of DVI allow for greater differentiation within the organization and against the competition	
VI that denote greater openness to public involvement, through customization and collaboration, in the construction of the final result	
Greater potential to reference changing contexts due to the coherence maintained between the constant aspects, which provide stability, and the variable aspects, which generate dynamics	

On the other hand, and in what may represent a risk or threat, the norms' manual is opposed to the concept of dynamism, and in terms of the result of variations generated, the difficulty in registering, managing, and applying the logos, recognizing versions, the lack of control over the result, interpretation failures, and also the need to use specific software [3, 6, 7].

3 Principles to Consider When Designing a DVI

The design of a DVI does not differ, in some respects, from a static visual identity. Both are united in the goal of reflecting the context in which the organization is inserted, being fundamental, for this, to answer to the needs of a briefing, to determine what makes the organization distinct or essential (through the definition and study of values, mission, collaborators, cultural and historical context, etc.), as well as the analysis of its competitors and potential consumers. A set of steps that make it possible to outline a strategy, taking into account the most appropriate market positioning and the representation of the image with which the organization or brand aspires to project itself [2, 9, 19, 21].

If DVIs are distinguished from static ones by one or more of their elements undergoing variations and by the interaction between static and variable elements in the VI system [3, 9, 11, 15, 19] suggests some steps that should guide the design of a flexible system. The first two steps:

(1) define the communication problem and
(2) decide where your solution will be applied—are already diluted in the introduction of this topic, namely in the response to the briefing's needs, in the outlining of the strategy, and in the positioning chosen by the organization. While the remaining ones are listed below:
(3) Select a shape—the form conveys messages and influences the tone of the visual language;
(4) Build your assets—the visual identity will be more differentiated from competitors;
(5) Test your assets on different formats—test your visual system in all types of media: narrow, wide, large, small, loud, quiet, moving, and static;
(6) Present your system on mock-ups—this is essential to understand how the visual system reacts to different formats and contents and to imagine how the visual identity will work in context. It also suggests the development of a design manual that documents the process and the defined rules, which is also essential to verify if the rules were designed and applied consistently.

Lorenz [9, p. 9] also highlights what he calls transforming systems, which are "like a filter that distorts an image, font, or graphic in a recognizable way". For him, the transformation becomes "the identifiable element of visual identity and not necessarily the transformed".

On the other hand, [11], after analyzing the terminology applied by several authors to DVIs and the perspectives on their classification, present us with a model based on how variation is visually performed and identify the three aspects to consider when designing a DVI: identity focus, variation mechanisms, and characteristics.

Identity focus is important in determining whether or not a VI is focused on a brand mark. By way of distinction, they present two examples: the VI of the Priba supermarket chain, designed by Allied International Designers and Geoff Gibbons in 1973, in which the entity is identified and recognized by a brand mark that frames a

series of images, colors, and patterns that reflect the diversity of products and services; and the VI of the Walker Art Center, where the focus is on graphic language, which explores a set of tools: bars, stripes, and chevrons [11].

Variation mechanisms (VM) specify how VIs change visually, and the authors clarify that a VI can use more than one VM and that the same VM can be applied to more than one element of the VI system [11]. The VMs are described as follows:

Color Variation—a graphic element changes color. Example of the VI from Casa da Música, where the colors of the brand mark are picked from images related to events.

Combination—a combination of different graphic elements in the VI system. Example of the La Fonda del Sol restaurant, designed by Alexander Girard in 1960, with the combination of a set of facial features, sun rays, enclosing shapes, and colors, which create a wide range of sun designs.

Content Variation—area or space where different images are placed, either in the background or in the figure. Example of the VI for Design Academy Eindhoven, created by The Stone Twins in 2010, where the content changes with each interaction, every time a person writes the name of the school, creating countless versions.

Positioning—a graphic element is positioned in different ways. MV applied to the Boolab VI, designed by Mucho in 2009, exploring numerous arrangements of the four lines and five circles that form the word "boolab".

Repetition—repetition of the same graphic element, subject or not to a grid. VI for the Mobile Media Lab, created by FEED in 2008, reproduces symbols independently or overlapping each other.

Rotation—a graphic element is rotated. VI of the Optica store, designed by Vlad Likh in 2013, through the rotation of a pair of glasses in a three-dimensional space.

Scaling—a graphic element changes size. Example of the IV for IDTV, created by Lava in 2008, is based on the combination of four distinct modules with different scales.

Shape Transformation—a graphic element changes shape. MV applied to the IV of the Brooklyn Museum, created by 2 × 4 in 2004, to continuously morph a seal.

According to the authors, these characteristics refer to the properties that distinguish an IV, or that they retain—as a kind of personality—and that can be cumulative [11]. They identify the following:

- Flexible—identities that adapt to different contexts in which they are applied, both in terms of media and content. The VI of Boîte à Musique, an example of adaptation to the media, reconfigures itself to adapt to different formats (paper sizes), while Casa da Música VI adapts to different content through color variation to change the graphic identity according to the images related to each event;
- Fluid—an identity that changes continuously, usually with a wide spectrum of possible variations. Kamnin bank VI, created by b2s6 in 2013, is based on a three-dimensional shape composed of layers, which creates a sense of continuous movement;
- Generative—variations generated by an algorithm, with a certain degree of autonomy and sometimes randomness. For example, 2007's Lovebytes VI was

code-generated, which gave rise to a new type of image and personalized design. Otherwise, the VI of the Rhizome organization, designed by Surface in 2001, is generated by querying the website, depending on the IPs of the last four users, defining the mode of interaction with people and/or reaction to input data in real-time. Most generated VIs have a "logo generator" (a computer program that generates variations of the graphic identity);

- Informative—identity that provides information to its audiences; used to communicate messages or to identify products, services, sections, or personnel. Google regularly changes its brand mark with the Google Doodles, designed by Dennis Hwang in 1998, to celebrate significant events or special dates;
- Participatory—DVI that allows the involvement and influence of the user, in addition to the designer, in obtaining the final result. In some cases, the user provides the content, as in the graphic identity of OCAD University, designed by Bruce Mau Design in 2011, where the public is invited to fill a frame (with illustrations, doodles, or photos). In other cases, users configure a set of elements provided by the identity itself, as in the VI of the GetUp hair salons, designed by Alexis Rom studio in 2007, where customers and stylists create brand marks through the stamping process;
- Reactive—DVI that reacts to input data, whether real-time or not, and that is generated programmatically, such as the graphic identity for Visit Nordkyn, designed by Neue in 2010, which is affected by a feed of meteorological statistics;
- Unlimited—the variations of DVIs are infinite. For example, the VI for the Web Aol., designed by Wolff Olins in 2009, features an ever-changing background that evokes the multiplicity and dynamic nature of the Web, featuring a wide variety of objects (content).

4 Conclusion

The decision to develop DVI appears to be in line with the current market trend of providing personalized and customized product and service solutions by brands and organizations. The number of DVIs has been increasing steadily in recent years, indicating a growing interest in this type of strategy. This may be because DVIs offer various benefits, such as representing a dynamic and ever-changing world or brand, adapting to new communication needs that arise due to the evolution of contemporary society, enabling greater originality and flexibility in identity creation, and allowing for the transmission of references and content to audiences in ways that can generate unique stimuli and surprising effects. Additionally, DVIs can facilitate the renewal of concepts or the identity itself, making them an attractive option for organizations seeking to stay ahead of the curve.

To create effective DVIs, there are two important design requirements to consider. The first is to ensure that the brand mark is memorable and recognizable so that the VI doesn't lose its identity and become indistinguishable [3]. The second requirement is related to the complexity and maintenance of the system. Since DVIs don't rely on

a traditional logo or brand mark, they may require additional communication efforts to maintain consistency across different platforms and avoid confusion. This could mean repeating the logo or brand mark to reinforce memorization and recognition or adapting it for different media to encourage creativity and consistency. Overall, attention to both requirements can help ensure that the DVI is effective and meets its intended goals.

In conclusion, in terms of design, it is important to highlight that most of the DVIs analyzed by Martins et al. [11] focus on the brand mark as the main element for creating variation in the identity's appearance. In some cases, it is the only element of the identity that undergoes variation. Regarding the variation mechanisms, (81%) use one or more MV in the brand mark, and (54%) use one or more MV in the system. However, only (35%) use MV simultaneously in both the brand mark and the system. As for the characteristics, the most common is the unlimited characteristic, followed by flexible, fluid, generative, informative, participatory, and reactive. These are important factors to consider when constructing a DVI, as they reveal endless possibilities for the combination that can lead to unexplored or innovative paths, and they allow professionals to test the limits of visual representation and have greater creative freedom.

References

1. Budelmann K, Kim Y, e Wozniak C (2010) Brand identity essentials: 100 principles for designing logos and building brands. Rockport Publishers, Inc, Beverly, Massachusetts
2. Capsule (2007) Claves del diseño//Logos 01. Barcelona: Editorial Gustavo Gili, SL
3. Felsing U (2010) Dynamic identities in cultural and public contexts. Lars Müller Publishers, Germany
4. Junior LAP, Costa MJ, e Torres SSM (2018) Identidades visuais adaptativas: Inovações no processo de criação e suas tecnologias. In: Revista sistemas e media digitais, Abril de 2018, Vol 3 No 1, pp 1–10
5. Kreutz EA (2007) Identidade Visual Corporativa Mutante: uma estratégia comunicacional contemporânea. In: Intercom—XXX Congresso Brasileiro de Ciências da Comunicação, 29 de Agosto a 02 de Setembro de 2007. Santos
6. Kreutz EA (2012) Construindo Marcas Mutantes. Chasqui. Revista Latinoamericana de Comunicación, (119), pp 61–65
7. Leitão S, Lélis C, Mealha Ó (2014) Marcas Dinâmicas: Haverá forma de as orientar? In: 1st International Congress on Branding, ESTG, 2–4 October 2014, Leiria, Portugal
8. Lelis C (2019) Like a Chameleon: the polychromatic virtue of dynamic brands. J Prod & Brand Manag 28(4):445–461
9. Lorenz M (2021) Flexible Visual Systems: the design manual for contemporary visual identities. Slanted Publishers, Karlsruhe, Germany
10. Lupton E (2004) Thinking with type: a critical guide for designers, writers, editors & students. Princeton Architectural Press, Estados Unidos
11. Martins T, Cunha JM, Bicker J, Machado P (2019) Dynamic Visual Identities: from a survey of the state-of-the-art to a model of features and mechanisms. Visible Lang 53(2):4–35
12. Raposo M, Oliveira F (2017) As marcas tipo-gráficas e a metamorfose: A tipogradia enquanto elemento unificador do sistema de identidade visual. Conference: CIDAG–4. ªConferência Internacional em Design e Artes Gráficas. ISEC/IPT/Salesians de Sarrià. pp 84–89

13. RTP Homepage, rtp.pt/notícias/cultura/. Accessed 10 Dec 2022
14. Sääksjärvi M, Hende E, Mugge R (2015) How exposure to logos and logo varieties fosters brand prominence and freshness. J Prod Brand Manag 24(7):736–744
15. Silva R, Martins N (2018) MIT Media Lab's dynamic identity. In: DIGICOM 2018—2nd International conference on design and digital communication: proceedings. November 9–10, 2018, Barcelos, Portugal. Edições IPCA. pp 33–43. ISBN: 978-989-99861-8-3. https://digicom.ipca.pt/docs/DIGICOM2018-Proceedings.pdf
16. Siswanto R, Dolah J (2018) Exploration to the most fundamental form of dynamic visual identity. Adv Soc Sci, Educ HumI-Ties Res 197:432–438
17. Stones J (2009) No rules logos: radical design solutions that break the rules. RotoVision, SA, Switzerland
18. Twemlow A (2007) Para que serve o Design Gráfico? Editorial Gustavo Gili, SL, Barcelona
19. Van Nes I (2012) Dynamic identities: how to create a living brand. BIS Publishers, Amsterdam, Holanda
20. Vasconcelos J, Martins N, Brandão D, Penedos-Santiago E (2023) Visual Identity of Non-profit Organizations: Escola Oficina, a Case Study Plan. Advances in Design and Digital Communication: Proceedings of the 6th International Conference on Design and Digital Communication, Digicom 2022, November 3–5, 2022, Barcelos, Portugal. Springer Series in Design and Innovation, vol 27. Springer, Cham. pp 675–686. https://doi.org/10.1007/978-3-031-20364-0_57
21. Wheeler A (2009) Designing brand identity: an essential guide for the entire branding team. Wiley, Estados Unidos da América