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Research Article

Bloomie: Designing A Semiotic-Based Design Guideline for Feminine Health Communication

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Abstract: *Feminine health communication occupies a difficult position in visual design. The subject matter is medically dense, culturally sensitive and personally intimate, and the visual conventions available to designers tend to fail in one of two directions: they become clinically detached, or they become euphemistic to the point of obscuring meaning. This project argues that the persistent barrier is not the scarcity of health information but the way that information is visually encoded. Bloomie responds to this by translating semiotics, the study of how signs generate meaning from an analytical theory into an applied design system. The outcome is a guideline that organises design decisions across eight visual elements and directs the designer through a structured sequence: health information, cultural and sensitivity consideration, semiotic translation, visual design element, and communication application.*

1. INTRODUCTION

A single image can communicate what a paragraph cannot. In feminine health, however, that communicative economy often works against the audience rather than for it (Liu et al,.2021). Visual material addressing menstruation, puberty, and reproductive wellness must simultaneously satisfy several competing demands: it must be medically accurate, culturally acceptable across diverse audiences, comprehensible to readers of varying health literacy, and respectful of the dignity of the person depicted (Galmarini et al., 2024). These demands routinely conflict. A diagram accurate enough to instruct may read as clinical and alienating; an illustration soft enough to feel safe may be too vague to inform.

The consequence is a communication environment in which information exists but does not reliably reach the people who need it. Designers working in this space are asked to resolve these tensions without a structured method for doing so, and generally resolve them through intuition, precedent, or brand convention. This project treats that absence of method as the central problem, and proposes that semiotic theory offers the missing structure.

1.1 Problem Statement

Three concerns motivate this study. The first is that sensitivity constrains representation. Feminine health resists direct depiction: cultural norms, institutional and platform guidelines, and ordinary audience discomfort all narrow what a designer is permitted to show. The standard response is to abstract, but this is also where the guidance stops. Designers are told what to avoid and left to work out for themselves what to put in its place.

Second, no visual choice is neutral. Colour, form, typography and metaphor function as signs, and signs carry inheritances the designer did not select. Pastels borrowed for their gentleness can read as infantilising. A floral motif chosen for delicacy can slide into euphemism, the flower standing in for anatomy that goes unnamed. Such readings occur at the point of reception whether or not they were planned, which makes them a design problem rather than a matter of interpretation after the fact.

Third, there is no structured method for handling either constraint. Semiotics has a long record as an analytical tool, applied to artefacts that already exist. It is far less often reversed and used generatively, and rarely at all within the particular conditions of feminine health communication.

The shortfall here, then, is not informational. Clinical facts on the subject are widely available and well documented. What remains unresolved is how they are encoded: the translation between what health information means and how it is made visible. This project takes that translation as its problem and asks whether semiotics can be carried across from an analytical vocabulary into a generative one.

1.2 Aim and Objectives

This project sets out to develop a semiotic design guideline for feminine health communication. It helps designers make visual choices they can account for, under conditions where directness is not available. The objectives are:

- To identify which semiotic considerations bear specifically on feminine health communication.
- To translate those considerations into design principles that can be applied in practice.
- To develop Bloomie, a guideline resource in a form the design community can actually use.

2. LITERATURE REVIEW

This study draws on semiotics, the study of how signs carry meaning, to account for the gap between what a design shows and what viewers take from it. Semiotics provides the established theoretical lens for understanding how visual artefacts produce meaning. Barthes' distinction between denotation and connotation holds that an image simultaneously depicts something and suggests something further, and that the second layer is where cultural ideology enters (Barthes, 1977). Kress and van Leeuwen (2006) extend this into social semiotics, arguing that meaning is not fixed within a sign but generated by interpreters drawing on culturally available resources a position that explains why an identical visual form can be read as liberating in one context and transgressive in another without either reading being incorrect. This framework has been applied productively to commercial artefacts. Faizullah and Arslan (2024) demonstrate that visual and textual signs on packaging convey meanings well beyond functional product information, while branding scholarship establishes that consistent semiotic resources are what allow a brand identity to become recognisable and to carry values rather than merely attributes (Woxsen University, 2023). Collectively this body of work confirms that no design element is neutral: colour, form, typography and metaphor each signify whether or not

the designer intends them to. Its orientation, however, is predominantly analytical. Semiotics is deployed to interpret artefacts that already exist, reading backwards from a finished design to the meanings it generates, and comparatively little of this literature is organised to support the forward direction from an intended meaning toward the visual choices most likely to produce it.

A second strand of research addresses what occurs when signs cross cultural boundaries, and identifies the failure this study takes as its starting point. Huo, Azhar Abd Jamil and Yang (2025) argue that traditional cultural symbols are frequently applied superficially in packaging, producing misreadings that undermine the very meanings the designer sought to invoke; they propose an interdisciplinary application–misreading–optimisation framework and caution that symbolic misuse can escalate into cultural conflict. This concern intersects with the femvertising literature, where Åkestam, Rosengren and Dahlén (2017) established that advertising challenging gender stereotypes reduces consumer resistance and improves brand attitude findings generated, however, in high gender-equality Western markets whose transferability to culturally conservative contexts remains unsettled. The Libresse V-Kebaya controversy furnishes a documented instance of that limit: Anis, French and Lim (2024) analyse the campaign's withdrawal as a collision between the universalism embedded in liberating values and local custom, concluding that cross-cultural marketing requires interrogating rather than assuming the portability of such values. What emerges across both strands is a problem that is well diagnosed but poorly resourced. Semiotic scholarship explains why cultural misreading occurs, and case analysis documents its consequences after the fact, yet neither produces prescriptive guidance a designer can apply before a design exists. No established guideline translates semiotic principles into actionable decisions for feminine health communication in culturally conservative markets, the gap this study addresses.

2.1 Theoretical Framework

Bloomie is grounded in semiotic theory, which holds that meaning is produced through the relationship between a sign and its interpretation rather than residing in the sign itself. The framework applied here treats each design decision as a signifying act and examines it across denotative meaning (what the element literally depicts), connotative meaning (the associations it carries), and cultural or contextual meaning (how those associations shift across audiences) (Jadou & Ghabra, 2021).

The theoretical contribution lies in the direction of application. Where semiotic analysis conventionally reads backwards from a finished artefact to its meanings (Barus et al, 2025), Bloomie reverses the operation: it begins from an intended meaning and reasons forward toward the visual elements most likely to produce it in a given cultural context.

3. METHODOLOGY AND DESIGN PROCESS

Quantitative data were collected through an online questionnaire titled *Reframing Feminine Health Visual Design* distributed via Google Forms. A convenience sample of 38 respondents (n = 38) was drawn from the target population: women in Malaysia, aged 18 to 35. Items were rated on a five-point Likert scale (1 = strongly disagree, 5 = strongly agree), with each item mapped to one of the three research objectives.

The project followed a four-phase process of discovery, analysis, synthesis and application. Discovery established the communication landscape and its recurring failures. Analysis examined existing feminine health visual material through a semiotic lens to surface the sign systems in operation. Synthesis converted those observations into semiotic insights, which were then formalised as design criteria. Application translated those criteria into the Bloomie visuals guideline.

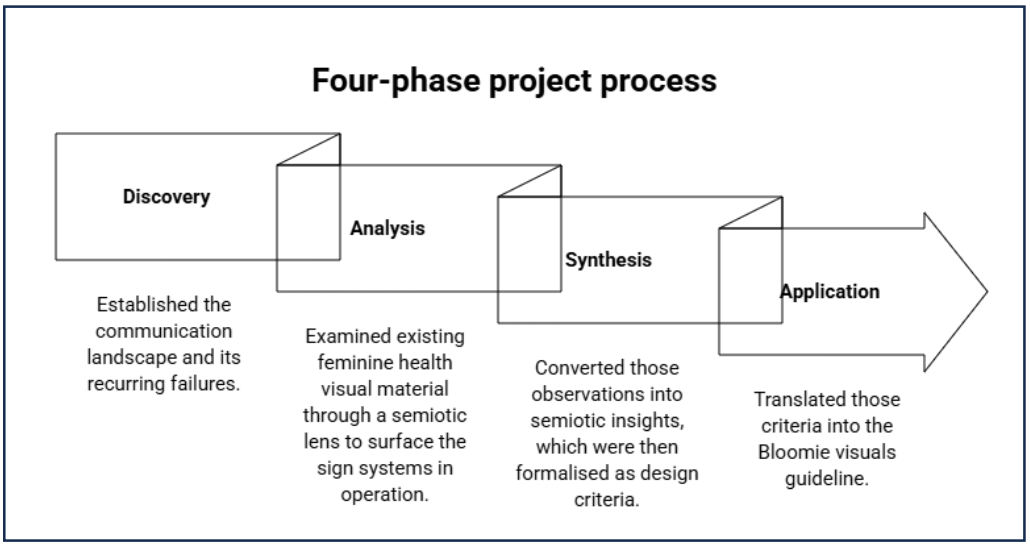


Figure 1. Four Phase Project Process to Create Bloomie System

4. FINDINGS AND DISCUSSION

4.1 Survey

Three results carried most of the diagnostic weight.

- Cultural respect registers as a precondition (RO1). Asked whether visual design should respect cultural values and sensitivities, 21 of 38 respondents strongly agreed and 14 agreed, 92% combined, with three neutral and none in disagreement. The concern is held within the target audience itself, rather than raised on its behalf by outside critics.
- The breakdown was semiotic (RO2). Just under two-thirds, 24 of 38, agreed that some motifs read as ambiguous or open to misinterpretation. This points to a gap between encoded and decoded meaning, and locates that gap in the sign rather than the intent behind it.
- Objecting to the execution is a separate matter from objecting to the message (RO3). 36 of 38 agreed that a redesign should still celebrate Malaysian culture and femininity. Respondents were not asking for less empowerment in femvertising. They were asking for it to arrive more quietly, through a surface that stays abstract and culturally legible.

Taken together these findings define the design brief that Bloomie answers: retain the empowerment message, retain the cultural reference, and relocate the explicitness from the visual surface into the educational layer beneath it.

4.2 The Bloomie System

Bloomie organises design decisions around eight elements: colour, symbolic form, typography, illustration style, visual metaphor, imagery boundaries, language and tone, and visual hierarchy with application principles. For each element the guideline sets out the semiotic considerations at stake, the interpretations a designer should anticipate, and the principles that follow.

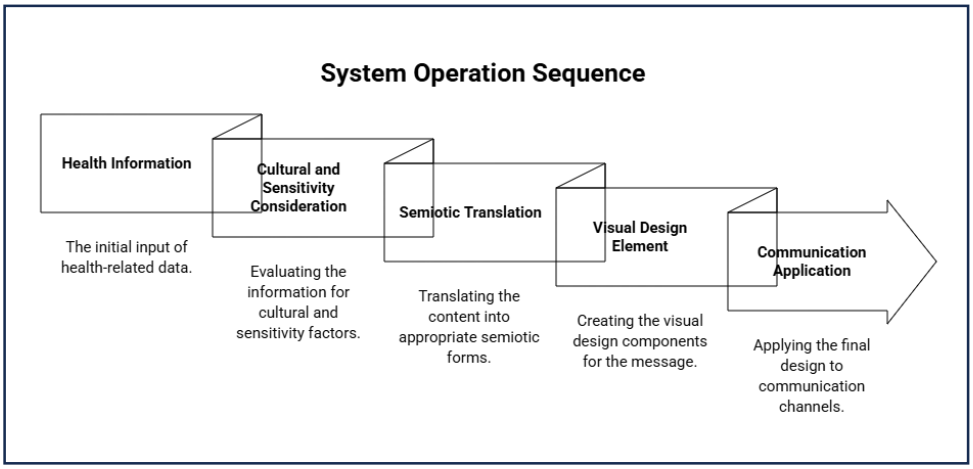


Figure 2. The system operates as a directed sequence

In use, this resolves into four designer-facing steps: identify the communication problem; consult the guideline to evaluate the range of likely interpretations; apply the relevant visual principles; and translate the result into a concrete application such as packaging, print education material or a digital interface. The emphasis throughout is on the transformation process rather than on any single visual outcome, Bloomie prescribes a way of deciding, not a fixed aesthetic.

Figure 3 shows a page from the guideline book on how to construct the visual based on selected subject matter (hibiscus flower) using the semiotic framework.

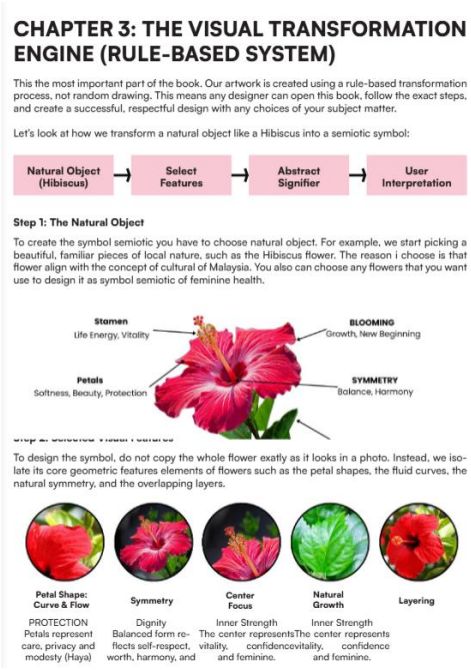


Figure 3. A page from the guideline book

5. CONCLUSION

Bloomie transforms semiotic thinking into a practical design guideline for feminine health communication. Its contribution is to close the distance between what health information means and how it is visually communicated, a distance that has been navigated by intuition rather than by method. In doing so it offers designers a defensible basis for decisions that are currently made tacitly and offers the field a repeatable standard for communication in sensitive contexts.

Development beyond the present stage centres on validation with healthcare and semiotic experts, expansion of the guideline to a wider range of feminine health topics, cultural adaptation for non-Western audiences, development of a digital toolkit, and implementation studies measuring comprehension and comfort outcomes among target audiences.

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