

Visible Language

the journal of
visual communication
research

Peterson et al.

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funded research
developing a systematic
framework called the
Pictorial Trapezoid, which
offers greater control in
producing new pictures
with generative AI, and
describing how an AI
might be trained for
semiotic precision in
distinct research
contexts

*implications for providing
greater control over
image-to-image
generation*

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funded research
exploring designers'
current and desired uses
of existing design
knowledge

*implications for the
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announcement of a new
publishing model for
Visible Language

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the journal of visual communication research

december, 2023

ISSN 0022-2224

Published continuously
since 1967.

2023

december

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Visible Language

Online Archive Improvement Study:

Envisioning
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D.J. Trischler

Abstract

This study aimed to identify strategies to improve *Visible Language's* online archive design for a broader readership. The author used a combination of exploratory methods with current and potential *Visible Language* readers to identify designers' current and desired uses of design knowledge. The findings led to three key design strategies: article curation, advanced search filters, and a dynamic reading experience. The strategies extend beyond *Visible Language* to design archives that wish to improve and broaden engagement with their content.

Keywords

Academic Journals
Academic Publishing
Reading Experience
Design Knowledge
Accessible Scholarship
Online Archives

Introduction

Overview

Visible Language is the longest-standing scholarly journal about graphic and communication design. As such, the journal has accumulated an online archive that houses decades of valuable design knowledge defining and reflecting an ever-evolving discipline.

Subscribers to *Visible Language* are mostly university libraries and individuals within academia. The author speculates that most online readers are academics and access articles through databases instead of directly through the *Visible Language* online archive.

This study sought to identify strategies to improve *Visible Language's* online archive design for a broader readership. The questions in Table 1 structured this two-phase study that explored designers' current uses of design knowledge (Phase One) and their desired uses (Phase Two). The author used a combination of exploratory methods with current and potential *Visible Language* readers to answer these questions. Their responses laid the foundations for an improved *Visible Language* online archive via three design strategies with diagrams visualizing their meanings. The strategies extend beyond *Visible Language* to design archives that wish to improve and broaden engagement with their content.

Table 1

The study's research questions with
their corresponding research phase.

#	Questions	Phase
1	How do designers currently use design knowledge published in academic journals and other publications about graphic and communication design?	One
2	Which journals and publications do they go to regularly?	One
3	What kinds of articles are they looking for?	One/Two
4	How are the articles read/used?	One/Two
5	How could designers/would designers like to use design knowledge?	Two
6	What features would make the VL online archive more useful?	Two

Study Definitions

Visible Language

Visible Language (VL) aims to help inform authors, editors, and subjects as they collaborate to make design knowledge. Though it has evolved, VL has held a core purpose to increase designers' knowledge. VL's founding purpose in 1967, when it was named *The Journal of Typographic Research*, was "to report and to encourage scientific investigation of our alphabetic and related symbols (Wrolstad, 1967)." The journal renamed itself to *Visible Language* four years later because of the constraints of the previous name. The new name opened the content boundaries, and the new tagline reflected its expansion — "The Journal for Research on the Visual Media of Language Expression" (Wrolstad, 1971). The editor wrote at that time, "This Journal represents what could be the first concerted effort to organize our investigation of every respect of this visual medium of language expression." VL sought to present "a range of interests" regarding the conception, formation, reception, and interpretation of writing, typography, signs, and more (Wrolstad, 1971).

In 1987, Sharon Helmer Poggenpohl, VL's new editor, changed the tagline to "the quarterly concerned with all that is involved with our being literate" (1987). The "range of interests" expanded again, which may reflect significant technological shifts. VL covers during this era reflect the tension and possibilities caused by desktop computers. The articles leaned theoretical as designers sought to orient themselves within an ever-changing discipline and world.

Currently — under VL's third editor, Mike Zender — the tagline reads "the journal of visual communication research" (2022). The online archive states, "*Visible Language* supports the community of communication design scholars, researchers, and practitioners through the publication of rigorous, relevant communication design research" (Zender, n.d.). This description is more targeted than previously. The change reflects broader influences like more scholarly design journals and a shifting discipline, including the rise of UX/UI research. Zender and the editorial team, of which I, the author, am a part, encourage design researchers toward empirical, evidence-based design studies reminiscent of the original mandate toward "scientific investigation."

Design

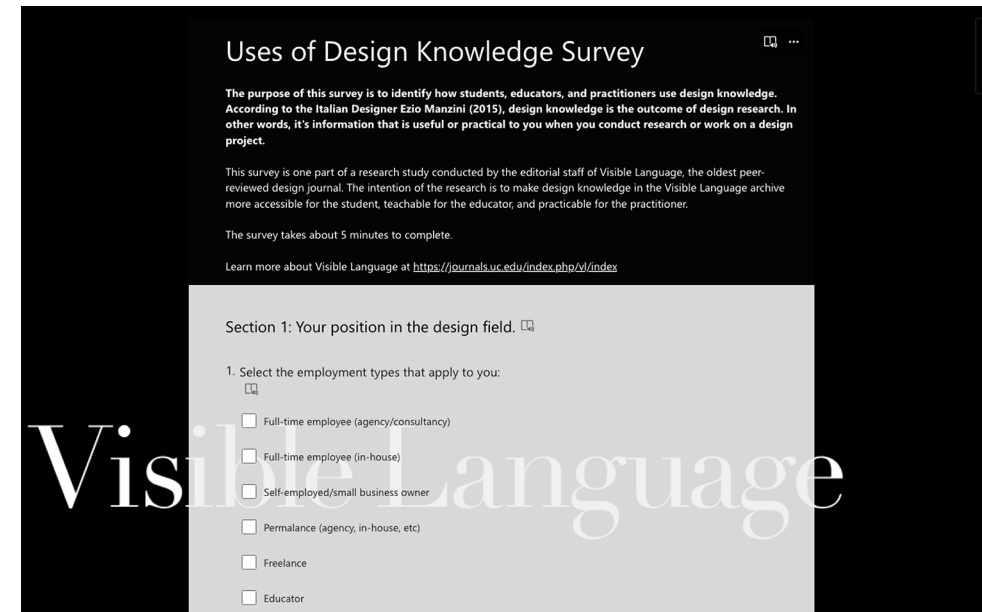
Graphic and Communication Design (Design) often looks like arranging and rearranging letterforms, colors, and shapes to achieve better graphic and communication design processes and outcomes. The ever-change list of what graphic and communication design encompasses includes user experience design, user interface design, design research, type design, visual identity design, information design, service design, design educators, and more.

Designers

By designers, this study refers to people who create and study design. Being that designers are often one of many interdisciplinary collaborators working on a given project or study, this study extended its audience to include readers and authors beyond traditional design, including, but not limited to, visual anthropologists or neuroscientists interested in design knowledge.

Design Knowledge

Design knowledge is the outcome of design research (Manzini, 2015). It is information gathered through studies for, into, and through design (Frayling, 1994). Developing design knowledge usually involves systematized processes but is not exclusive to scholarly sources like VL. Design knowledge fills a gap for designers, whether it is scholarly or not.



Uses of Design Knowledge Survey

The purpose of this survey is to identify how students, educators, and practitioners use design knowledge. According to the Italian Designer Ezio Manzini (2015), design knowledge is the outcome of design research. In other words, it's information that is useful or practical to you when you conduct research or work on a design project.

This survey is one part of a research study conducted by the editorial staff of Visible Language, the oldest peer-reviewed design journal. The intention of the research is to make design knowledge in the Visible Language archive more accessible for the student, teachable for the educator, and practicable for the practitioner.

The survey takes about 5 minutes to complete.

Learn more about Visible Language at <https://journals.uc.edu/index.php/vl/index>

Section 1: Your position in the design field.

1. Select the employment types that apply to you:

- ☐ Full-time employee (agency/consultancy)
- ☐ Full-time employee (in-house)
- ☐ Self-employed/small business owner
- ☐ Permalence (agency, in-house, etc)
- ☐ Freelance
- ☐ Educator

Methods

Phase One: Study Design and Participation

Figure 1*Phase One Survey*

Phase One — current uses of design knowledge — involved a literature review, survey, and semi-structured interviews. For the literature review, the author mainly studied AIGA — the Professional Association of Design in the U.S. — materials to understand designers' current needs and uses of design knowledge. These resources included the 2019 Design Census (AIGA, 2019), Davis' pulse on GCD's current and future state (Davis, 2021), and *Design POV: An In-Depth Look at the Design Industry Now* (AIGA, 2021). While they included international perspectives on design, the content reflected a mostly American point of view.

The author recruited 41 survey participants via personal emails and LinkedIn posts. The "Uses of Design Knowledge" survey included 15 Questions. The first set asked about the participant's role in design, the second set asked about their uses of design knowledge. Aspects of the survey language and descriptions relied on the 2019 AIGA Design Census and a research study about journal reading methods (Subramanyam, 2013).

The author recruited two designers for semi-structured interviews through the survey. The participants — design practitioners — responded to seven questions about design knowledge acquisition. The participants offered valuable insights into reading and presenting design research.

Phase One: Analysis

Literature Review

The literature review revealed rapid technological advancements, sprawling globalization, and calls for social impact. AIGA's studies are directed toward creating design knowledge for designers working within a world and discipline marked by constant change. Undoubtedly, VL's archive reflects decades of change in design — a search of the word "change" produced fifty-six articles. This problem space — designers' responding to constant change — aligns well with VL's core purpose and correlates with what designers shared in this study.

Survey and Semi-Structured Interviews

The author analyzed the survey and semi-structured interviews — along with the literature review findings — to form the seven Design Criteria (Table 2). The following paragraphs describe the criteria with evidence found through Phase One's methods.

Design Criterion One: Curate and organize articles for better searchability

There was a desire to make VL articles easier to find. One survey participant suggested "better systems of organizing and cataloging." Another said they find "curation" of design knowledge helpful, which the author takes to mean that information is organized and presented by themes or subjects. Others implied that they wished they could search by specific methods (like usability tests) or standard questions (like why you should not use a logo in an email footer). The current VL online archive presents articles chronologically by issues and volumes. Existing search options include filters for dates and authors for readers who already have these specifics in mind. The VL online archive can better organize or curate articles to give readers more avenues into design knowledge.

Table 2

Phase One Design Criteria

#	Design Criteria	Category
1	Curate and organize articles for better searchability	Organization
2	Guide readers through an evidence-based design process	Grouping
3	Connect readers to the various origin stories within the field	Grouping
4	Elevate content that addresses a rapidly changing world	Grouping
5	Bridge the gap between the scholarship and practice	Presentation
6	Summarize article at various scales	Presentation
7	Increase connection between readers and writers	Presentation

Design Criterion Two: Guide readers through evidence-based processes

This criterion reflects the desire to use design research processes within design practice. Only 14 of 41 (34%) of the participants identified as a design researcher. Yet many of the participants rely on design knowledge. 25 (60%) said they seek design knowledge to identify methods; 19 (46%) use design knowledge to back up their views and decisions; and 16 (39%) use design knowledge to prove the effectiveness of their designs. Therefore, a curated archive should include groupings of articles highlighting design methods and processes that others, especially practitioners, can easily find and utilize.

Design Criterion Three: Connect readers to the various origin stories within the field

The VL online archive holds articles about the origins of designed things. An interview participant said they stumbled upon a VL article about ISO icons while looking to "understand why certain icons were systematized and drawn with a particular perspective — why do women have triangular dresses?" They wanted to "understand the origin of these things" to inform decisions on icon systems for a client project. These types of articles — the origin stories of design and designed things — could be curated for better searchability.

.....

Design Criterion Four:

*Elevate content that
addresses a rapidly
changing world*

One of the interview participants wished for more information on how to “build an interface that allows the user to compose their [own dashboard]? ... That tool has to allow that user to build [charts] and allow all of our other customers to build similar things.” In other words, designers are asking questions there may not be answers to yet. Grappling with changing technologies is familiar to VL. For instance, an article from 1998 titled “Writing in the Age of Email: The Impact of Ideology versus Technology” grapples with evolving language and “computer mediated communication” (Baron). Grouping articles like this — where designers in the past grappled with change — could offer the contemporary designer helpful insights in the face of yet-to-be-answered questions about changing technologies.

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Design Criterion Five:

*Bridge the gap between
scholarship and practice*

The VL editorial team wanted to know where most designers go for design knowledge. Five of the 41 (12%) participants had read VL. Eighteen (43%) go to “scholarly resources” for design knowledge. Otherwise, they use non-scholarly resources like podcasts, films/video, books, industry publications, and other popular resources. Bridging the gap between scholarship and practice might mean using language — both visual and verbal — that welcomes design practitioners or students new to scholarly archives.

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Design Criterion Six:

*Summarize articles at
various scales.*

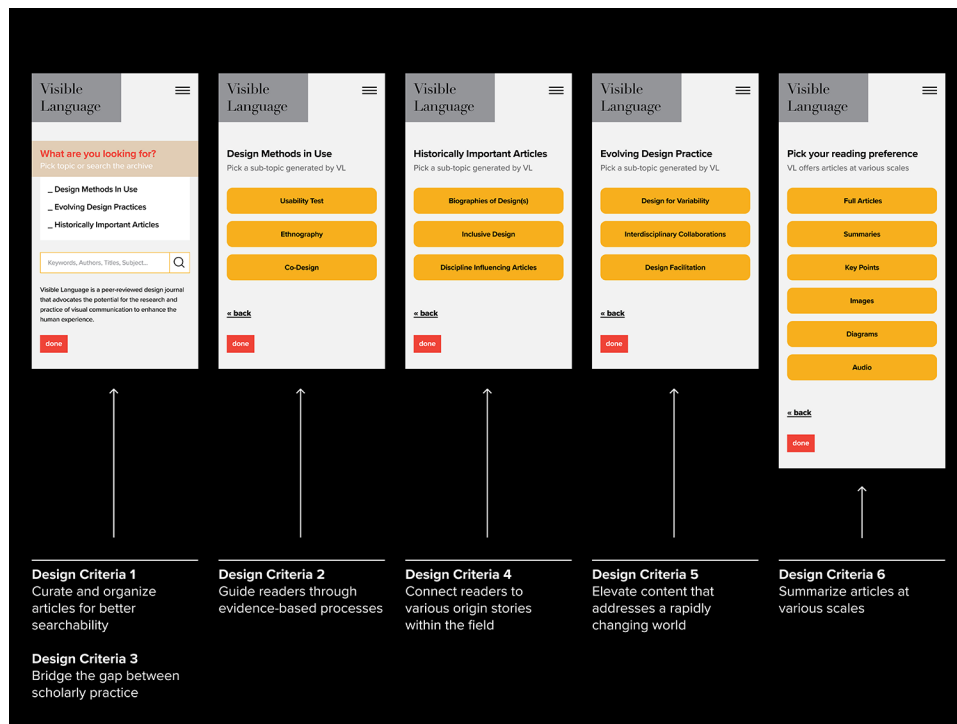
One interview participant confessed, “I stopped for like three hours today and didn’t get any work done because I was skimming the internet or reading... I feel bad stopping and doing research.” The other said, “What are we trying to solve for? How did we do it? What did we learn? What’s next? Get me to the bullet points — include a slide that says TL; DR (Too Long; Didn’t Read).” Thirty-six survey participants (87%) said they skimmed articles — just over half said they read from start to finish. Many readers may prefer summaries or takeaways from an article — *Shi Ji* starts articles with highlights, and *The International Journal of Design* uses symbols to communicate article content. There is room to explore dynamic and abstracted expressions of VL online archive content that take less time to understand than reading full scholarly articles.

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Design Criterion Seven:

*Increase connection
between readers
and writers*

The final design criterion encourages connections among current and potential VL community members. “It would be great to hear from the authors. I sometimes go on YouTube and listen to a book tour lecture before I buy the book and read it. It is nice to hear the author directly...” a survey participant wrote. 17 (41%) engage design knowledge in “dialogue with others.” Additional responses referred to ideas like organizing symposia, workshops, and discussions. The online archive could catalyze connections across articles, themes, and backgrounds of authors. Readers and authors alike could contribute and socialize in the archive through a comment section or wiki-like pages.



Phase Two: Study Design and Participation

Figure 2

The prototype with Design Criterion from Phase One. The prototype did not include Design Criterion Seven; however, it will appear in the final proposal.

Phase Two demonstrated six of the seven the design criteria from Phase One through the low-fidelity archive interface prototype in Figure 2. The prototype offered curated content that reflected the noteworthy topic spaces articulated in Phase 1. It also focused on approachable language and the option to engage scholarly articles at various scales for designers unfamiliar with scholarly spaces.

The author used Maze, an online usability testing platform, to share the prototype and a card sorting exercise with participants. Each of these activities involved qualitative questions before or after the activity. There was a pre- and post-question with the prototype, a question to follow up the card sort, a general question for anything else on a participant's mind, and a request for contact information — a total of seven prompts.

The purpose of Phase Two was not to evaluate the interface usability but to explore designers' desired uses of design knowledge. What do they wish they knew, and how do they prefer to engage design knowledge?

The author recruited participants through personal emails, sharing on LinkedIn and AIGA chapter Facebook groups, and the University of Cincinnati's Ullman School of Design newsletter. Of the 64 participants who arrived at the study's home page, 36 (56%) responded to the pre-prototype question, 39 (60%) interacted with the prototype, 26 (40%) responded to the prototype follow-up question, 28 (43%) participated in the card sort, 24 (37%) responded to the card sort follow-up question, 24 (37%) responded to the question about anything else participants would like to add, and 24 (37%) responded to the last question about sharing their email. Responses included a participant's decision to "skip" a question.

The first question activity asked participants what they wished they knew about visual communication design education, research, and practice. This question produced 79 coded snippets of text across 35 participants.

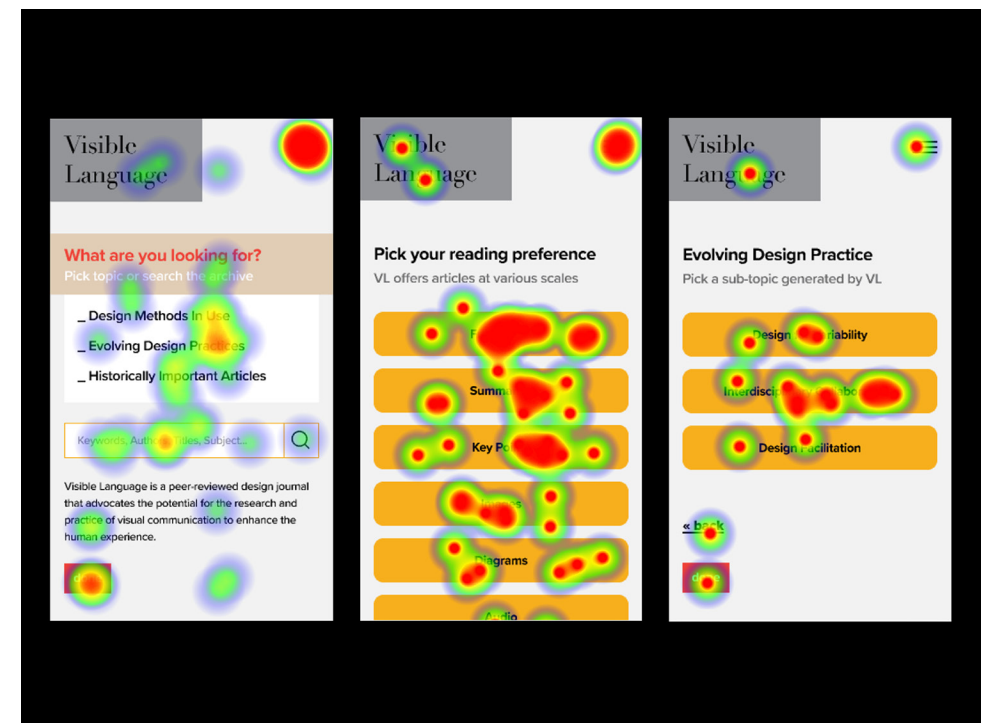


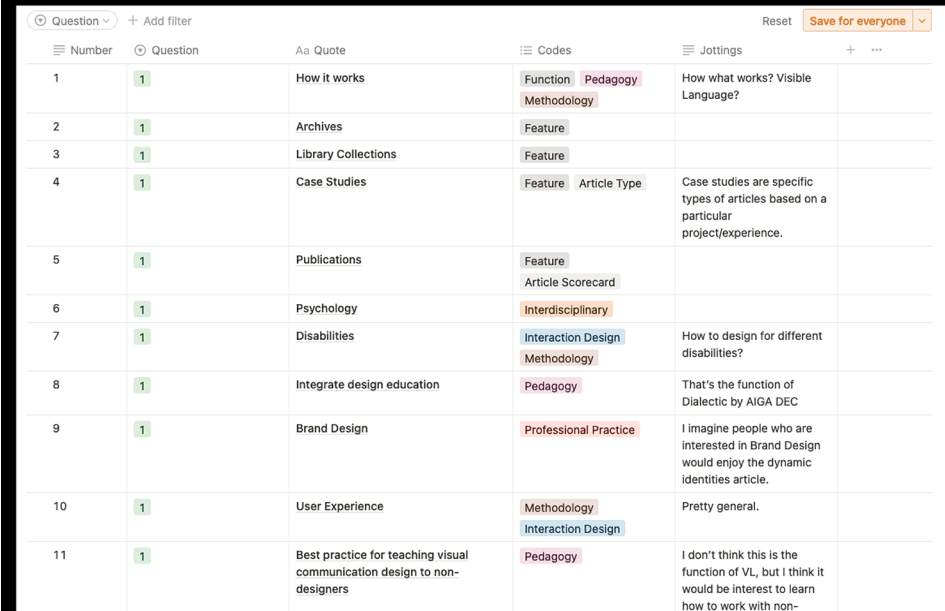
Figure 3

Examples of Heat Maps from the Phase Two Study.

The second part of the first activity invited participants to navigate the low-fidelity prototype (Figure 3). The prototype's primary purpose was to facilitate more responses from the participants regarding what they wished for in the VL online archive in question two. After browsing the prototype, participants were asked what other topics or features they would want from the VL online archive. Playing with the prototype generated 31 more coded snippets.

The second activity — a card sort — asked participants to group a pre-defined list of article reading preferences (based on Design Criterion Six). The list included “Summaries,” “Key Points,” “Images,” “Full Articles,” “Diagrams,” “Audio,” and “Lecture/Presentation.” Participants moved the preferences into the following groups, “Would Use,” “May Use,” and “Would Not Use.” Immediately after the card sorting, the participants could share what they would expect from their most preferred reading preferences. This question produced 34 coded snippets.

The last activity asked the participants to add any additional comments related to the study. Five participants shared 13 additional snippets. The activity ended with a request to stay in contact about future studies and ongoing updates about VL — 13 participants gave their email addresses of the 59 who began the Maze study (22%).



Question	+	Add filter	Reset	Save for everyone
Number	Question	As Quote	Codes	Jottings
1	1	How it works	Function Pedagogy Methodology	How what works? Visible Language?
2	1	Archives	Feature	
3	1	Library Collections	Feature	
4	1	Case Studies	Feature Article Type	Case studies are specific types of articles based on a particular project/experience.
5	1	Publications	Feature Article Scorecard	
6	1	Psychology	Interdisciplinary	
7	1	Disabilities	Interaction Design Methodology	How to design for different disabilities?
8	1	Integrate design education	Pedagogy	That's the function of Dialectic by AIGA DEC
9	1	Brand Design	Professional Practice	I imagine people who are interested in Brand Design would enjoy the dynamic identities article.
10	1	User Experience	Methodology Interaction Design	Pretty general.
11	1	Best practice for teaching visual communication design to non-designers	Pedagogy	I don't think this is the function of VL, but I think it would be interest to learn how to work with non-

Phase Two: Analysis

Coding Qualitative Responses

Figure 4

Coding Phase Two Snippets

The next paragraphs describe the codes that result from analyzing participant responses in Phase Two and how they began to inform the article curation suggested by Design Criterion One in Phase Two. Each grouping includes a title that reflects the design knowledge participants seek, a brief description, and quotes from the participants.

Code/Curated Group	Instances
Alternative Design Practices	18
Emerging Techniques	10
Historiography	24
Interdisciplinary Models	18
Accessible Experiences	17
Methodology	26
Pedagogy	27
Professional Practice	35

Table 3

Phase Two Qualitative Codes/
Curation System (Alphabetical
order).

.....
*Designers seek "Critical
or Alternative Design Practices."*

This code marked instances affiliated with inclusive design or alternatives to "business-as-usual design" (Wizinsky, 2022). This might mean search filters related to an author's identity and a specific collection of articles tagged by "Alternative Design Practices."

- "Search by various tags or categories, i.e., female authors, queer authors, ethnic or religious perspectives, particular topics like design curriculum."
- "Criticism that positions Design as a Postcapitalist Field of Knowledge."
- "Transitional Design."

.....
*Designers seek
"Emerging Techniques"*

This code related to Design Criteria Five in Phase One is about elevating content that addresses a rapidly changing world. Similarly, it reflects the participants' wish to stay on the forefront of, or at the very least, keep up with change. VL's future online archive should include articles curated by "Emerging Techniques," an iteration of "Evolving Design Practices," as portrayed in the Phase Two prototype.

- "Artificial Intelligence."

.....
*Designers seek
"Historiography."*

This code was associated with the origins and meaning of visual things and design history (like Design Criterion Three). The code has a higher code count (24 snippets) and was present across the activities in Phase Two. The code represents a consolidation of the "Historically Important Articles" collection in the prototype and emphasizes lineages in design. VL's future online archive should include articles curated with "Historiography" that speak to the origin of designed things and the design discipline.

- "I mentioned other sub-fields of design earlier, such as service design, transitional design, and innovation design—how did these modes of design begin and evolve? Can we see the history using images?"
- "A high-level overview of a topic with an opportunity to dig deeper into the topic."
- "Track the generation and interrogation of knowledge streams."

.....
*Designers seek "
Interdisciplinary Models"*

Quotes attached to this code cited design plus another discipline or work outside traditional design training (like "community cultivation" on design projects). The code evolved from the "Interdisciplinary Collaborations" button on the prototype. The heat map of the button's screen revealed 10 engagements, making it the most popular topic on its page for "Evolving Design Practices."

- "Interdisciplinary models."
- "Connections with other fields of research."
- "Somatic science of communication."

.....
*Designers seek examples
of "Accessible Experiences."*

This code reflected instances about designing better human-centered, "Accessible Experiences" across varied formats, contexts, and processes. Participants were concerned with improving the experiences of subjects in design research or the intended audiences of design projects. VL's archive should curate "Accessible Examples" from their collection of articles.

— “Translating words into other languages from accessibility.”

— “Why, in the majority of design programs, is there a wasteland of ‘communication’ courses: the “how to design” courses never have anything to do with the experience of the “the user/audience?”

— “Better outreach to vision impaired.”

Designers Seek “Methodologies”

This code described instances that point to a desire for reliable research and design methods. The author iterated on the “Design Methods in Use” section title — the most visited in the prototype (18 participants) — to create “Methodologies.” It is the broadest of the codes, appearing in 26 instances, almost always combined with other codes.

— “Finding subjects for research interviews.”

— “More ways to create low fidelity prototypes with users during workshops (in-person and virtual).”

— “Find frameworks.”

Designers Seek “Pedagogical Frameworks”

This code characterized instances focused on learning and teaching design. While the prototype did not explicitly reference pedagogy, it was among the highest-level codes with 27 snippets about the classroom, curriculum, and theory. As a result, the code should be a curated group in VL’s future online archive.

— “Integrate design education.”

— “How curriculum is created for a class from scratch.”

— “I just started teaching as an adjunct, so anything about visual communication design education!”

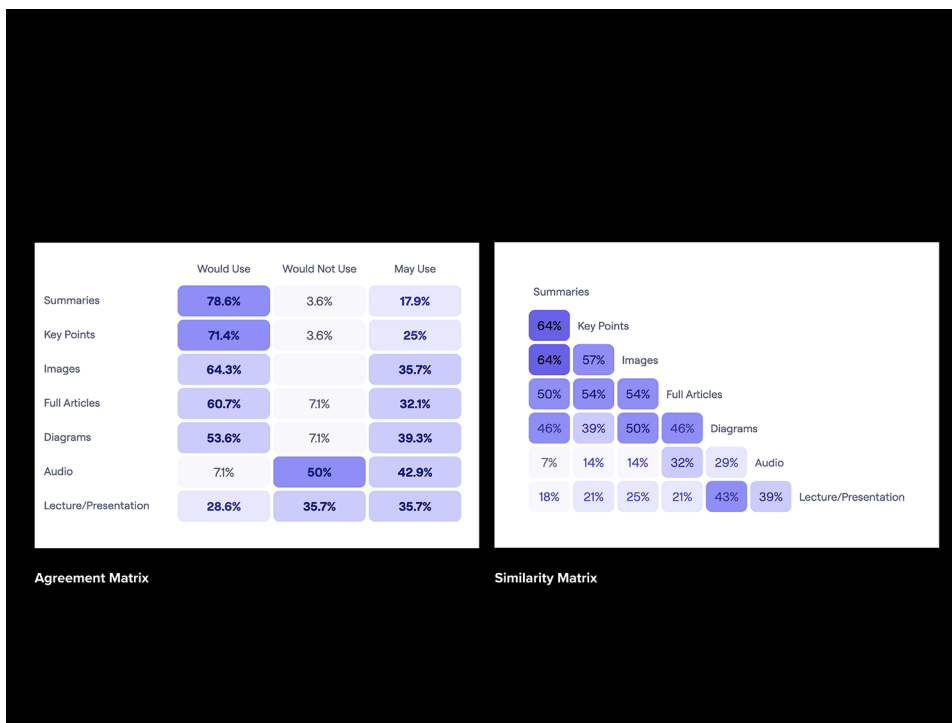
Practitioners seek “Design Knowledge.”

This code referenced descriptions of designers’ needs in commercial settings like studios or in-house design jobs. It was the most frequently used code (35 snippets). The prototype did not include specific connections to articles tagged “Professional Practice,” but its inclusion is critical in VL’s future online archive. The VL online archive must facilitate access to professional practitioners who may need help finding articles through scholarly databases.

— “How to design things well but not follow the usual trends.”

— “I wish there were more robust sustainability resources and certifications for our industry.”

— “Innovative practice and organizational models.”



Analyzing Reading Preferences

Figure 5

Reading Preference Results

The card sort showed (Figure 5) that reading preferences like summaries, key points, and images are more useful to the participants. However, all the options had some attractiveness. Written responses offered valuable perspectives behind the participants’ expectations, which indicated a more dynamic reading experience — in addition to traditional articles. A dynamic reading experience could include article summaries, links to related content, and visual representations (for example, a system map that depicts the interconnectivity of themes or authors). An extension like this could bridge the gap between scholarship and practice.

— “Everyone’s time is limited, so having a solid idea of what is going on via key points or a summary before reading a whole article is useful.”

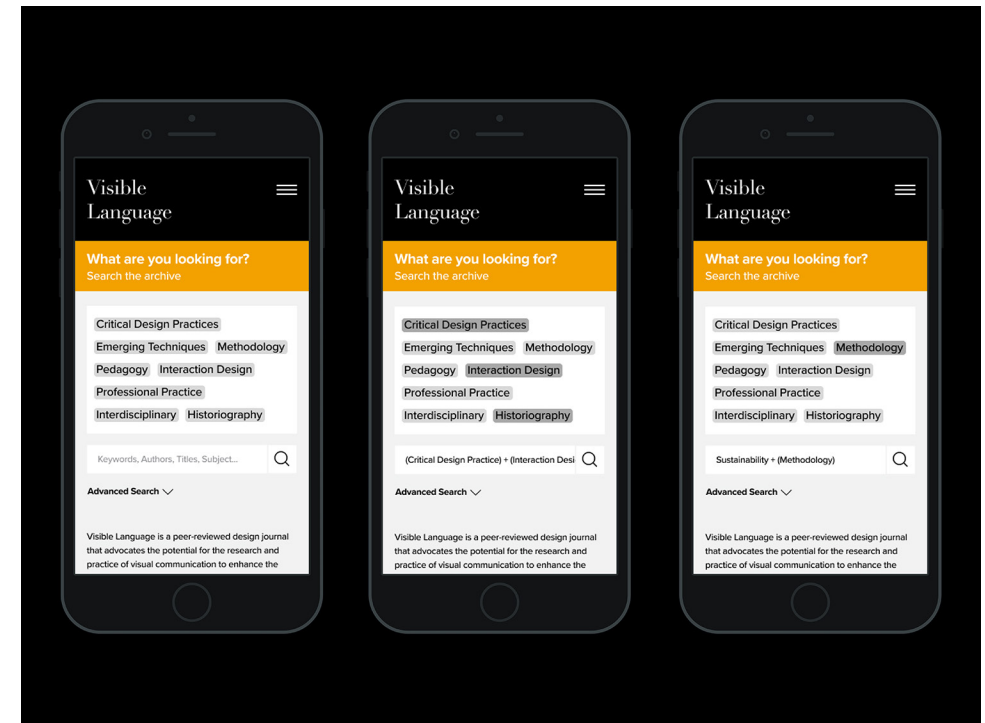
— “Lectures/presentations would ideally include suggested talking points or any additional context (i.e., reading list) from the author that would help discuss the topic in the classroom.”

— “It would be nice to add some sort of ‘related articles,’ ‘related topics,’ or ‘other articles by this author’ with links to previously published works.”

Results

During the analysis of Phase One of this study, the author produced seven Design Criteria that directed the design of a low-fidelity prototype in Phase Two. That prototype helped the author identify expanded topics for curation and a dynamic reading experience.

As a result, the author consolidated Phase 1 and Phase 2 into a set of Design Strategies that emphasize the study’s most important takeaways. The Design Strategies are focused priorities that will help VL improve and broaden engagement in the “Next Generation” VL online archive. Design Strategy One and Two emphasize curation. Design Strategy Three focuses on article summarization and building connections across authors, editors, and readers through a dynamic reading experience.

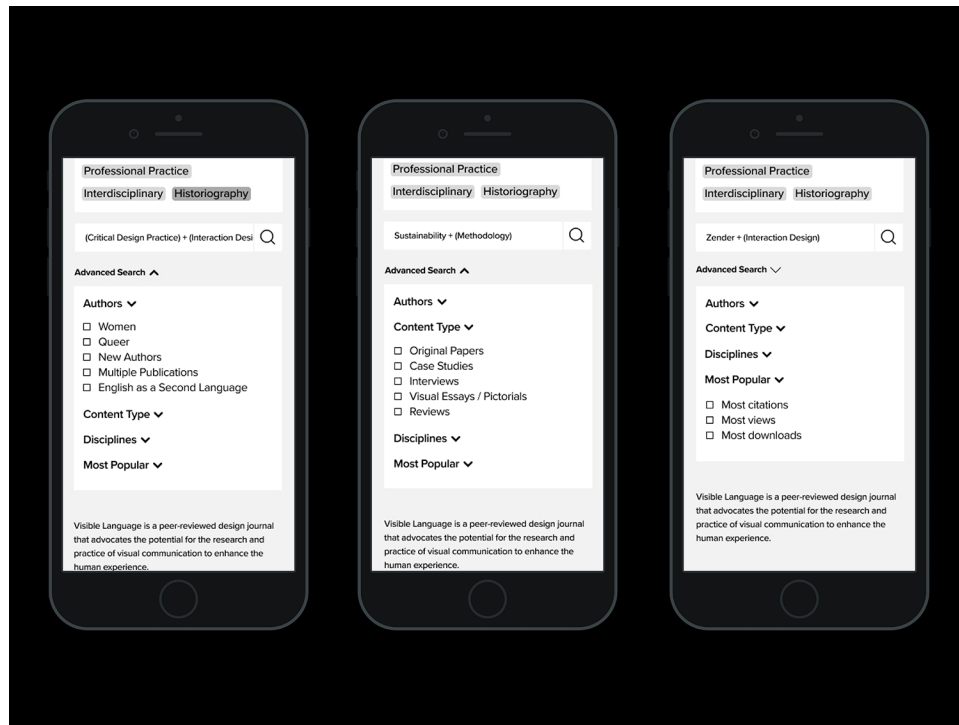


Design Strategy One: Simplify curation groupings and maximize variations so readers can quickly retrieve articles related to the most relevant topics

Figure 6

*Specific Tags and Open Search in
VL’s proposed “Next Generation”
online archive.*

The prototype in Phase Two offered three groups of specific articles without the possibility of combinations. VL’s proposed next-generation online archive presents eight combinable themes plus an open search. For instance, a reader could look for articles that combine Critical Design Practice, Interaction Design, and Historiography or look for articles about Methodology with keywords related to sustainability (Figure 6). The new system enables a user-friendly resource for readers — academic and non-academic alike — to quickly find articles based on the topics designers in this study shared that were most relevant.

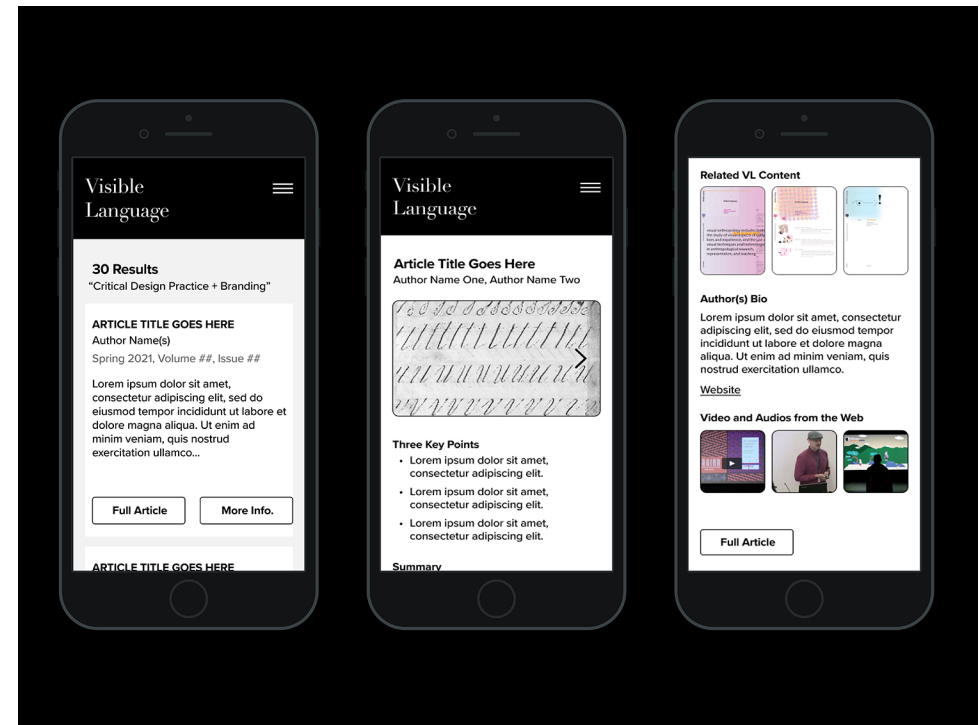


Design Strategy Two: Offer advanced search filters, like author background or specific methods

Figure 7

Advanced Search Filters in VL's proposed "Next Generation" online archive.

Beyond curating topics and areas of interest, VL's next-generation online archive should give the readers more detailed search options related to author identity and experience, related disciplines, specific methods, content types, and popularity (Figure 7). A detailed sub-search in VL's future online archive opens additional entry pathways into the archive's design knowledge.



Design Strategy Three: Create a dynamic reading experience that enables readers to discover more about the author, topic, and key points before deciding to read entire articles.

Figure 8

Dynamic Reading Experience in VL's proposed "Next Generation" online archive.

VL's future archive should include possibilities for readers to familiarize themselves with an article, its authors, and general topic space before – or instead of – reading an entire article. The dynamic reading experience requires more definition in future studies. However, it could look like articles – or curated groups – having a summary, key points, images, diagrams, and tools that deliver, on the one hand, vital content for skimming and, on the other hand, opportunities for deep dives (Figure 8). Either way, the dynamic reading experience should present content in different modalities. Readers could partially generate the pre-reading experience content, wiki-style. There may also be opportunities for AI-compiled summaries and organization.

Discussion

Overview

This study started with the belief that the *VL* digital archive holds a vital collection of design knowledge that is meaningful and valuable for contemporary and future designers as they grapple with an unpredictable discipline and world. However, the archive needs improvements to reach more designers, especially those who do not work in academia.

The author uncovered seven Design Criteria during Phase One to direct the prototype design in Phase Two. The Design Criteria suggested how *VL* might organize and present archive content into relevant categories and potential ways to connect readers to content, other readers, and writers. The prototype in Phase Two led the author to identify curated groups and a dynamic reading experience. The author then combined the findings from Phase One and Two into three key Design Strategies for *VL*'s future online archive. These strategies shaped the proposed archive design with flexible curation, filtering, and a dynamic reading experience. Innovations like these could unlock the deep repositories of design knowledge hidden behind both an inferior interface and, as one Phase Two participant described, "dry" articles that, if presented in more dynamic ways, may attract more readers, especially those less likely to visit a scholarly archive.

Limitations

This researcher conducted this study between fall 2021 and summer 2022 as an editorial assistant to *VL* and a graduate student at the University of Cincinnati's Ullman School of Design at the College of Design, Architecture, Art, and Planning. Funding for the editorial assistantship came from an internal grant directed toward editorial assistants. *VL*'s editors — professors at the Ullman School of Design — wrote the budget with this study in mind. The grant covered the author's time but did not include funding for promotion or recruitment. As such, the study consists of a modest — but insight-filled — sample size of participants mostly from, but not limited to, the United States.

The study's results should not be confused with generalizable knowledge. It did not fall under traditional human-subject research and did not go through the University of Cincinnati's IRB approval process. With these points in mind, the reader should

consider this content as a case study representing a product-improvement project — utilizing an evidence-based process — with localized results. The insights — or design knowledge — above is speculative, not prescriptive.

Finally, multiple people — including the *VL* editorial team and an additional editorial assistant — graciously contributed feedback and assistance during this study. Bias is inevitable within an analysis of a product or service by the people leading the product or service and this article did not go through an outside peer-review process. The *VL* editorial team encourages increased outside participation and external studies of the archive, which will be elaborated on in the next section.

Next steps

This study, and subsequent studies, of the *VL* online archive falls into the camp of "investigations into academic journal design and reading experiences." (Barness & Papaelias, 2021) *VL* is a design journal led by designers, allowing it to act as a testing ground for micro and macro journal design improvements that potentially generate knowledge — for other journals. "Such changes would be welcomed by journal readers" (ibid. p. 561).

An immediate next step for the *VL* online archive is the "evaluation, refinement, and production" of the design strategies above (Hanington & Martin, 2012). A future study could include methods like think-aloud protocol, usability tests, and more research through design with current and potential *VL* readers using further developed prototypes of *VL*'s next-generation archive.

Another study could examine how Artificial Intelligence might identify, organize, and classify the archive using the tags in this study. A future *VL* editorial assistant could archive and begin curating articles if budget limitations prevent using machine learning.

Additionally, this study instigated further research into the *VL* online archive dynamic reading experience, which could have implications beyond the specific journal. A future study could dive further into this area, highlighting the best modalities for demonstrating the interconnectedness of a theme, article, authors, methods, and more.

Dear VL Reader

If you shared feedback and perspectives in this study, thank you. There will be future opportunities for participation as the editorial team works on the “Next Generation” VL online archive. Please email Editor, Mike Zender, mike.zender@uc.edu, if you would like to participate.

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