


## Book Review

# Review of Shikake: The Japanese Art of Shaping Behavior Through Design

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### ABSTRACT

A new book by Naohiro Matsumura is reviewed. Shikake are described as designs that open up new behavioral options to people and that positively allow them to choose those options freely. Matsumura explores the motivations, philosophy, and implementations of shikake in the real world, providing numerous examples and illustrations. This book appeals to numerous audiences, ranging from the general interest reader who wishes to understand nudging from a traditional perspective ranging through the history of Japanese design, as well as the specialist designer who wishes to employ nudging techniques in a positive and fair manner.

### KEYWORDS

Design, Innovation, Japanese Design, Nudging, Reconstructed History, Shikake, Technology

Data, information, and computers, powerful though they may be, still have limitations when it comes to understanding and capturing most of the environment in which we live. The birds singing, the sound of a small creek flowing, the soft hum of bees: data excludes most of the sensory experiences in the world. This is how Naohiro Matsumura begins his new book, *Shikake: The Japanese Art of Shaping Behavior Through Design* (W. W. Norton).

Matsumura, a professor in the Graduate School of Economics at Osaka University, guides the reader through a journey of how to shape behavior through design, using the exploration and implementation of *shikake*. Matsumura's imperative is to use *shikake* as a means of making people aware of both the substance and mechanisms of the environment they inhabit. *Shikake* here closely resembles the bridging of the gap between Heidegger's ready-at-hand (*Zuhandenheit*) versus the more ontologically immanent present-at-hand (*Vorhandenheit*). Through Matsumura's research into the articles which manifested themselves as *shikake* objects, the field of *shikakeology* was born.

At its core, *shikake* is a results-oriented nudging technique, insofar as it pushes people to follow their natural urges. Rather than explicit imperatives or coercive modes of modifying behavior, *shikake*

uses tacit methods to make people want to change their behaviors towards a specific goal. From the outset, Matsumura provides several examples that illustrate the concept of *shikake*, accompanied by attractive illustrations and photographs. Many of these exemplify situations with which we are familiar, such as using painted lines in a parking lot to nudge people into how to park and orient their vehicles instead of a sign informing them, or, better yet, footprints painted on an escalator, which tacitly communicate to users which side to stand on to allow faster travelers to pass them on the adjacent side (while also wordlessly communicating the speed of the elevator, thereby improving safety). These directions are all communicated without explication and gently nudge the unconscious towards beneficial behaviors.

The book reflects over 15 years of research into examples of both effective and failed *shikake*. Matsumura is explicit in his definition of *shikake* as not being a tool for trickery or exploitation, stating that:

*A good shikake is one where the use has a positive reaction, such as smiling and saying, “Wonderful! It really got me.” A bad shikake is one that creates a negative reaction, where the user might feel “I’ve been deceived. I won’t fall for that again.” (p. 23)*

However, this distinction lies within the definition of what actually comprises *shikake*, whether constructive or unhelpful. But to truly distinguish what qualifies as *shikake* itself, Matsumura provides three necessary qualities, or FAD conditions, an acronym based on the first three letters of each condition: fairness, attractiveness, and duality of purpose. A design must meet all three attributes for it to be considered *shikake*. In elucidating the core of the concept, Matsumura shifts focus away from the equipment-centered approach to change—that is, the attitude marked by the rise in techno-fixes to societal problems—arguing instead that *shikake*’s behavior-centered approach is particularly apt at shaping both individual and social change.

Philosophically speaking, Matsumura does state that there are no unifying principles common to all *shikake*, but the principles that do manifest themselves in the background are nonetheless relatively simple. Because there are so many examples of *shikake*, referring to each constituent part of any given artifact is insufficient for describing the more abstract understanding of what *shikake* are. For this reason, he argues that a level of abstraction is necessary to unify the discussion of how to design *shikake*, rather than using verbs as a means of describing actions related to their use (what Graham Harman calls *overmining*), and nor does he refer to the component parts as a means of defining *shikake* more generally (what Harman would call *undermining*; Harman, 2018). Through an investigation of 120 different examples of *shikake*, Matsumura argues that one can explain *shikake* more generally via a combination of “two different major principles, four different intermediate principles, and sixteen different minor principles” (p. 70). A handful certainly, and one would be prudent to accuse Matsumura of overcomplicating *shikake* by adding principles on top of principles. In practice, however, *shikake* is not as complex as he makes it seem from the onset. He does so not by beginning with top-down principles and attempting to map them onto any given example but by using the bottom-up approach to delineate more abstract principles through these 120 concrete examples.

More than half of the book, a relatively short 192 pages of text in total—made even more functionally succinct by the rather large typeface—is dedicated to explaining each of these principles, embellished with examples. Matsumura provides simplistic figures to depict these different propositions in action, a practice that betrays his obvious familiarity with design studies and design thinking. More broadly, the first third of the book is primarily dedicated to the question of ontology, that is, *what is shikake, and why is it effective?* Whereas the rest of the chapters are devoted to *shikake* in action, or, more specifically, *how can one begin to implement shikake?*

It is here that Matsumura’s work shines. Ontologically speaking, Matsumura’s *shikake* fall firmly within the *interactional stance on technology*, that is to say, technologies that are neither purely deterministic nor solely instrumental and determined by social factors but a hybrid of both

(van de Poel, 2018). The design turn in applied ethics has demonstrated the veracity of this stance on technology, and one would suppose that a concept like *shikake* would be more aptly described as deterministic, given its nudging effects (van den Hoven et al., 2017). However, Matsumura is emphatic in his description of the principles that *shikake* have both feedback and feed-forward loops, and both influence and are influenced by the physiological and psychological responses of individuals.

Matsumura's approach is wide-ranging, from the seemingly most banal of objects, such as a urinal or a tunnel entrance, to more complex objects, like a smart bread maker. Matsumura masterfully distills what easily could have become an unruly set of philosophical principles into a functional and clearly understandable set of design requirements. Coupled with its readability, Matsumura's *Shikake* is an accessible, enjoyable, and informative primer to design thinking beyond Western traditions. His research, spanning more than a decade, bolsters the sustainability of the approach, a primary tenet of good *shikake*, as well as its attractiveness as a desirable design landscape. It comes highly recommended.

## REFERENCES

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Steven Umbrello currently serves as the Managing Director at the Institute for Ethics and Emerging Technologies. He studied Philosophy of Science and Technology at the University of Toronto (Hons. BA), Epistemology, Ethics and Mind at the University of Edinburgh (MSc) and Science and Technology Studies at York University (MA) and the ethics and design of AI systems, particularly autonomous weapons systems (AWS) at the University of Turin (PhD). Additionally, he served as a junior associate at the Global Catastrophic Risk Institute from 2013 to 2018 where his primary research and authorship was on the ethics of atomically precise manufacturing (APM) and other nanotechnology. Similarly, he is currently an expert consultant at Ethical Intelligence Associates Ltd. where he provides consultancy for companies to gain a competitive edge by mitigating ethical risks and formulating custom tools and protocols to embed ethics into their practices that align with current ethical guidelines and company values. Steven is also an associate editor of *Science and Engineering Ethics* and the book reviews editor at *Prometheus: Critical Studies in Innovation*.