

Research on the Edge: Incorporating new research methods in standard corporate research practices.

Eva C Lutz, MDes, Design Concepts, Inc.

Tricia Hertz, Ph.D., Principal Scientist, Procter & Gamble

Abstract

Outside of academia, it is often hard for researchers to find the opportunity to continue our scholarship. As graduate students and PHD fellows, we spent years creating and testing our hypotheses, designing new methods, approaches and technologies and we are anxious to ascertain if our theories can survive in the real world.

How does a lone researcher engage the business community and convince them to test and use new cutting-edge research methods? The flipside is also true, you are a corporate researcher who would like to engage new methods and approaches to advance learnings, but you have limited resources and a business that demands results. How can you trust new methods and engage in new approaches while minimizing risk and exposure? The authors will give a 50,000-foot view of a new design research methodology, The FlashDraw, and how it can be complimentary alongside traditional research methods. An overview and example of the research process will be illustrated. The poster will also explore the challenges and successes of the partnership between two researchers, a recent graduate student and a corporate researcher, and their on-going journey to explore and establish best practices for researching on the “edge of the new”.

Key Words: Design Research, User-generated Drawing, Methodology, Visual Language,

When innovation is the currency in which you trade, practitioners are often searching for new ways to identify the key insights that are the fuel for FEI, Front End Innovation. FEI, is defined as, “The starting point where opportunities are identified and concepts are developed prior to entering the formal product development process.” Wikipedia, 2017

With the increasing focus on business deliverables, designers, researchers, ~~and~~ innovators and consultants are being challenged to do it faster, better and cheaper. While traditional methods such as large global research studies and ethnographic research methodologies ~~are~~ were and, sometimes still are, considered best practices, innovative researchers are seeking new, lean (yet robust) learning avenues - the disconnect can be profound. This tension was one of the primary motivators to create a new methodology that would enable rich learnings via the collection of deeply emotional data quickly, effectively and from diverse populations. Creating the methodology is the easiest part of the journey to widespread adoption, the hardest part is acceptance and implementation in the field. This is especially true when the researcher is practicing in the private sector. This brief paper describes a new research method, The FlashDraw. It also briefly explores

some of the tensions associated with “selling a new method” and establishes general guidelines to aid internal and external researchers in the implementation of new methods to enable innovation.

The FlashDraw, an Introduction

How can we unearth deep insights remotely? We need to think beyond traditional methods, most of which rely on the collection of verbal or language-based data. Inspired by on-going research at the University of Cincinnati, a new methodology based on user-generated images was born. The research method, the FlashDraw, was designed to suss out the iconic images stored in the visual memory of a designated user population.

The FlashDraw method is based on theories and principles that how we remember, process and perceive images is different than for language or words. The human brain is hard-wired for image processing and image retrieval. Studies at MIT and the analysis of Magnetic Resonance Imaging (MRI) support this theory showing that the same parts of our brains are activated when we are looking at an object as when we imagine an object. This supports the theory of creative meta-seeing. Meta-seeing or creative imagery is virtual imagery that is visualized internal but externalized through our physical doodles, scribbles, charts and diagrams. When users are asked to draw, they are tapping into this virtual imagery. The images created by the research subjects are the projections of the virtual imagery they are seeing in their brains. (Kosslyn, Thompson, & Ganis, 2006)

These theories and understating the emotional content that are contained in images are why they help tell such profound stories and unearth such deep insights. Gathering user insights starts with listening to the stories of our research subjects. Storytelling is intrinsically a uniquely human quality. We began sharing stories as soon as we mastered the rudimentary skills that enabled us to communicate complex concepts. Our first shared stories were shared fireside; tales of beasts and conquests punctuated with gestures and pantomime. But our first recorded stories were drawn, images scratched into the sand or painted on hides and rocks; and visual narrative has continued to be a profound way for humans to share our fears, hopes, and needs.

A simple explanation of The FlashDraw method is illustrated below. Two groups of respondents were asked two similar, yet different questions. The first group of research subjects, a class of master of design students (n= 21) , were asked Question 1 “Please draw a picture of lunch?”. (Figure 1) is a representative sample of the images collected. The responses seem to very broad with many different types of food represented. But when we begin to analyze the data distinct differences emerge. (Figure 2), shows the same sample but it has now been filtered into US and International students. The two data sub-sets have now shifted into two homogeneous data sets, with multiple similarities in style of food, food temperature, serving container and utensils and inclusion of beverages.



Figure 1: Question 1” Please draw lunch” Graduate Students

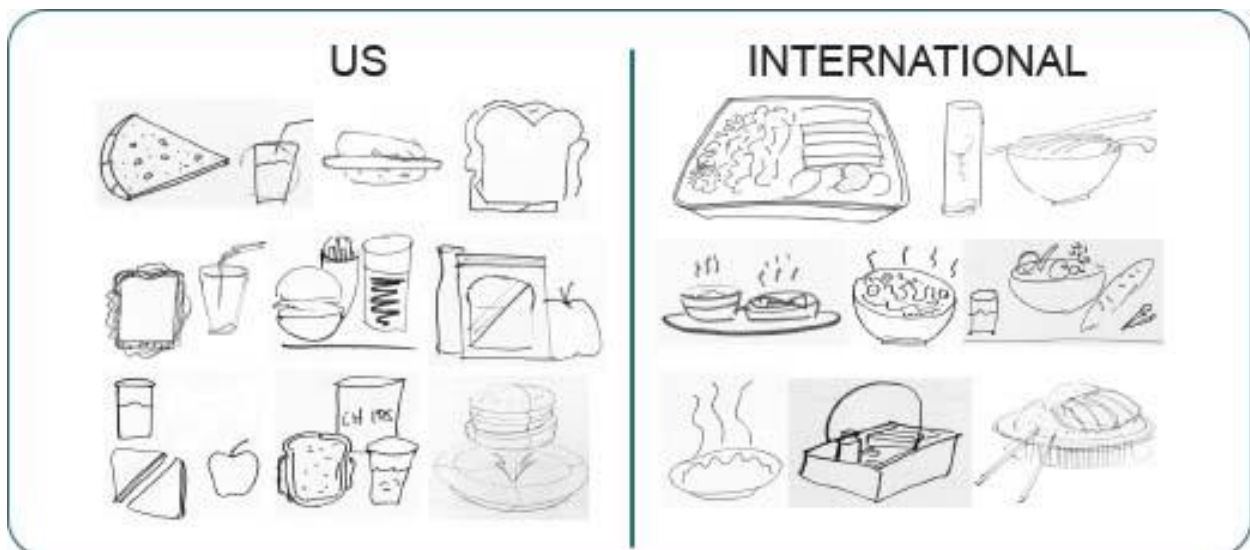


Figure 2: Question 2, “Please draw lunch” Subset US and International Graduate Students

The second group of research subjects, a US panel of adults ages 18-65 $n=100$, were asked Question 2, “Please draw a picture of your most memorable meal experience.” A representative sample of these results are shown in (Figure 3). Both questions are very similar and are focused on food and dining, it’s immediately apparent that we have shifted focus from what is on the plate to the emotional context of meals in society and in our personal lives. Over 65% of the research subjects did not depict food in their images, instead images depicted concepts of togetherness, community, happiness, family, love and even our favorite brands. (Figure. 4)



Figure 3: Question 2 “Please draw your most memorable meal experience.” US sample

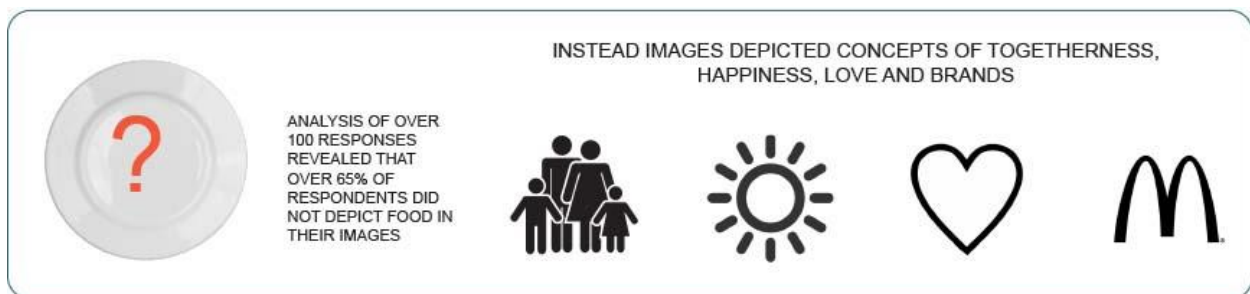


Figure 4: Question 2, “ Please draw your most memorable meal experience.” Analysis illustration

Implementation

You have managed to create something profound. You have tested your hypothesis, perhaps even written about it; but how do you move from theory to practice? How can you move into the adoption phase? It all starts with crafting a good story and finding someone to tell it to.

To help you on this journey we have created a check list of “What must be true to launch a new methodology in the real world”:

The Outside Consultant:

- Be brave! Find a creative curious champion who has access to funding.
- Create a simple and clear narrative and then simplify it again.
- Create a relevant demonstration of the value.

- Develop a generic case study you can share
- Create affordable and scalable engagement models
- Be willing to revise and amend deliverables
- Be open to challenge and change
- Don't try to force fit your approach into the wrong opportunity

The Internal Champion

- Methodology is well-suited to enable me to learn against my business objectives
- Methodology is based on sound research principles & theories
- Trust and believe in this consultant
- Case study is relevant and believable, enabling 'What's Possible? / How Might We?' thinking enabling me to adapt to my business needs
- Cost is reasonable, so that it is realistic to authorize or secure 'seed' funding
- Learning is experimental with high potential.
- Be willing to accept "This might fail!" yet know we will still learn
- Clear methodology and examples, enabled internal Corporate champion to justify and communicate business value to corporate sponsors and management

We have been on this journey for over three years and are still learning how best to optimize our project partnerships. We are willing to learn from each other and from the process; most importantly we adapt and change to achieve successes. This is all possible because of the factors we have outlined above.

Conclusion

Throughout the last three years that we have been experimenting with the FlashDraw. The two constants have been in our desire to learn and our faith that there are profound insights that can be found in user-generated imagery. Rigorous repeatable research practices are needed to validate new methodologies. Data only has value if it is trusted. The FlashDraw was developed specifically to address the need for a more rigorous method that could be applied to the collection and analysis of user-generated imagery. We are hoping to share a full case study with actual data in 2019.

User-generated visuals could fuel the design of visual concepts across the entire sphere of design and innovation and is a natural fit for the FEI research and discovery phase. The stored visual memory of the user needs to be elicited through user-generated drawing versus keyword searches or even standard participatory visual methods such as collage. It is our hope that this brief case study example and our "soon to be" shared projects provide a starting point for the validation of a design research methodology, The FlashDraw, based on a user-generated drawings.

References

- Lutz, E. (2015) A Participatory Method for the Design of Icons and Pictograms Applied to Medical Consent Forms. IASDR 2015
- Childers, T. L., & Houston, M. J. (1984). Conditions for a picture-superiority effect on consumer memory. *Journal of Consumer Research*, 11(2), 643-654.
- Dowse, R., & Ehlers, M. (1998). Pictograms in pharmacy. *International Journal of Pharmacy Practice*, 6(2), 109-118.
- Hope, D. S. (2006). *Visual communication: Perception, rhetoric, and technology*. New York, NY: Hampton Press.
- Houts, P. S., Doak, C. C., Doak, L. G., & Loscalzo, M. J. (2006). The role of pictures in improving health communication: A review of research on attention, comprehension, recall, and adherence. *Patient Education and Counseling*, 61(2), 173-190.
- Jones, S. (1983). Stereotypy in pictograms of abstract concepts. *Ergonomics*, 26(6), 605-611.
- Kosslyn, S. M., Thompson, W. L., & Ganis, G. (2006). *The case for mental imagery*. New York, NY: Oxford University Press.
- Kress, G. R., & van Leeuwen, T. (1996). *Reading images: The grammar of visual design* Psychology Press.
- Margolis, E., & Pauwels, L. (2011). *The sage handbook of visual research methods*. Thousand Oaks, CA: Sage.
- Paivio, A., Rogers, T.B., & Smythe, P.C., (1968). Why are pictures easier to recall than words? *Psychonomic Science*, 11 (4), pp. 137–138.
- Rose, G. (2012). *Visual methodologies: An introduction to researching with visual materials*. Thousand Oaks, CA: Sage Publications.
- Theron, L., Mitchell, C., Smith, A. L., & Stuart, J. (Eds.). (2011). *Picturing Research*. Rotterdam, The Netherlands: Sense Publishers.
- Ware, C. (2008). *Visual thinking: For design*. Burlington, MA: Morgan Kaufmann Publishers.
- Wikipedia, Data retrieved 10/04/2017.
<https://www.bing.com/search?q=front+end+innovation&form=EDGTCT&qs=SC&cvid=35abdbfd9701429786540a8f03b7e676&cc=US&setlang=en-US&PC=LSJS>

Author Biography

Eva C Lutz

Eva Lutz is a seasoned industrial designer, design researcher and innovator. She is a design leader who delivers innovative human-centered design solutions that are grounded in the business strategies of her clients. Ms. Lutz obtained her Masters in design from the University of Cincinnati. Her thesis and research focus is on user generated images and how they can be leveraged for insights and innovation. As a practicing consultant and General Manager for the San Francisco office of Design Concepts, she designs products, strategies and research methods that create paths of success for clients in the US and world-wide. She has innovated and co-created across service, healthcare, CPG, automotive, and food and beverage categories. As a toy inventor and designer at Kenner, she co-created the Littlest Pet Shop, which has brought joy to children across the world for over two decades.

Tricia Hertz

Tricia Hertz is an expert innovator, scientist and R&D leader at P&G for over 25 years. She has delivered both upstream and downstream business results across many fast-moving consumer good categories by translating complex consumer and technology insights into actionable business recommendations and meaningful product propositions. Dr. Hertz earned her Ph.D. in Analytical Chemistry from Duke University ('92) where she pioneered the application of phase-resolved fluorescence spectroscopy & unique data analysis approaches to real-world problems.