

What is Design Thinking

&

Why is it relevant in

the emerging **digital**media?





Design Thinking: The ability to process information in a holistic manner, with a heuristic approach to problem solving, a serendipitous disposition in discovery, and an aptitude for synthesizing data seeking patterns that provide insights. The design thinker has a dialogic approach to research and the ability to express ideas in multiple dimensions, diverse venues, using multi-media, and engaging multiple senses. Design thinking is a multi-disciplinary approach to creating relevant content and meaningful expressions with aesthetic as a major influence.

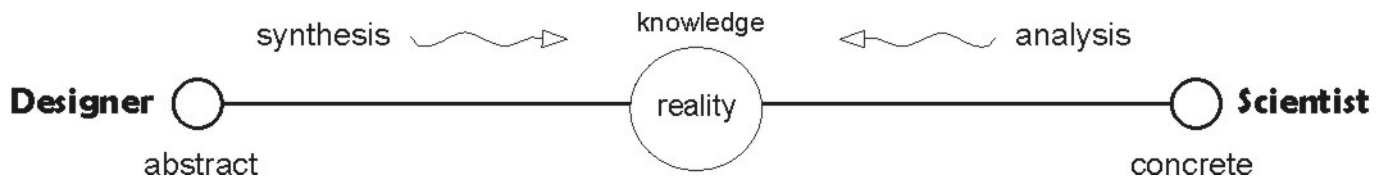
Paraphrasing Brown and Duguid in *The Social Life of Information*, no matter how powerful and impressive the technology, the social influences will always be a dominating force. It is obvious that a digital revolution has fully engulfed progressive societies and communication is being shaped and guided by emerging media and technologies. Information is abundant, mass media has become global, and the lines between author/creator and reader/viewer/consumer have blurred.

Data is expressed digitally, information is dynamic, and the relationship to news, entertainment, and knowledge has moved to virtual platforms. Screens have replaced canvases and computers are surpassing paper and books for channels of consumption.

Digital information is moving the old rules of static text, proper grammar, and regional context to a place of irrelevance. The only people who disagree are part of the institutions with a large investment in the old paradigms and less dependent on digital media for their communication such as psychiatric disciplines, philosophy, and languages. Data is consumed at a faster pace and the relationship to this information is more fluid. In a word, communication is becoming more complex. In the chaos of massive information overload and the deluge of choice, a more efficient type of communication with greater reach without sacrificing relevance is evolving. A digital literacy has emerged and continues to evolve with each technological innovation.

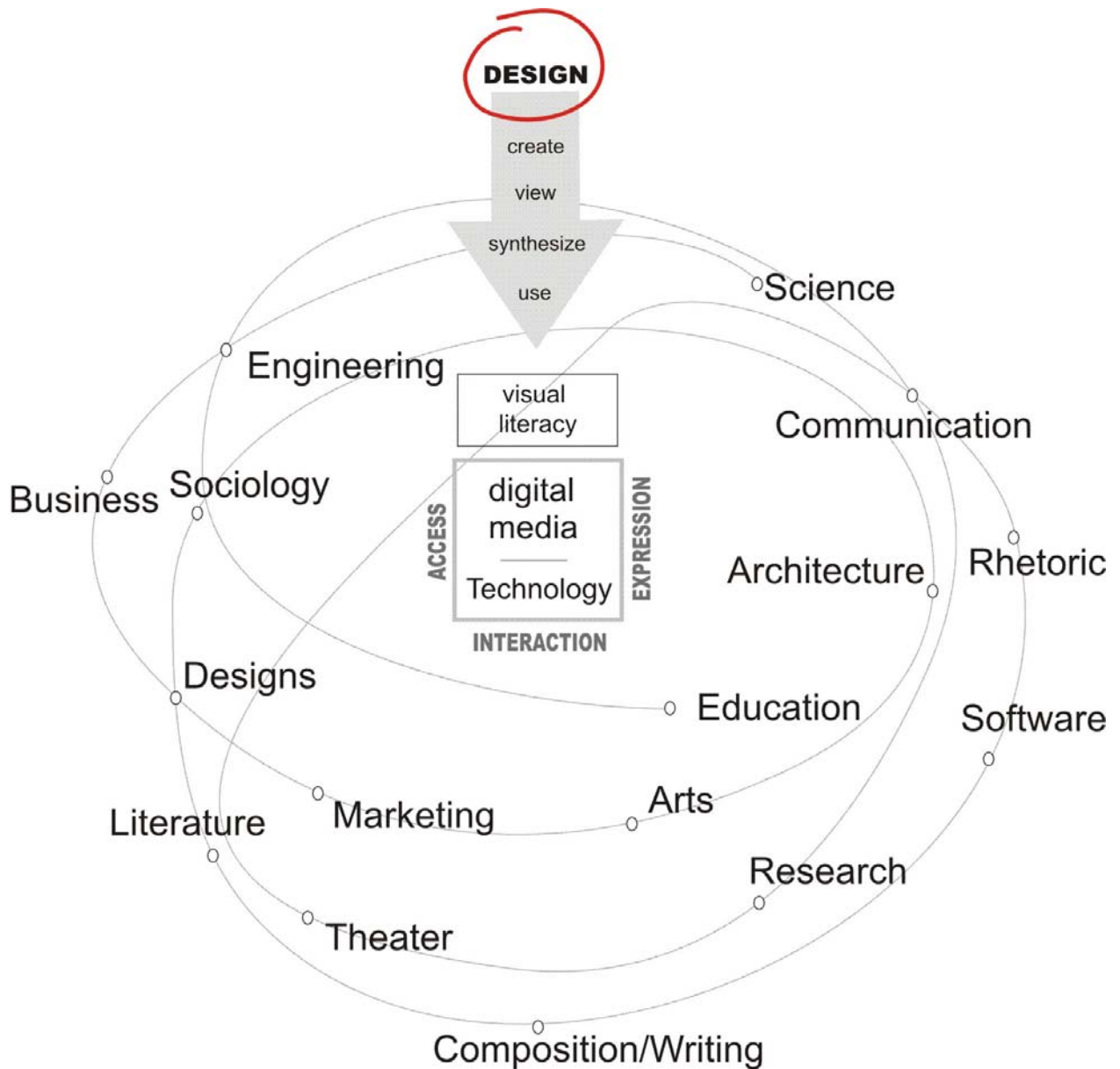
The new literacy is a digital language that currently looks like text messaging, videos on YouTube, or opinions on a blog. A visual language that transfers to a multitude of platforms and maintains the same impact and conveys a universal message as it is broadcast globally: A language that emits meaning without a dedicated effort and allows the user to consume mass quantities without effort.

Although, the specifics of this language are still not clear, the architect of such an inclusive, efficient and effective language is a person with a designer's sensibility. The author must engage in a non-linear, fully engaging, dialogue. The author is certain to use a vocabulary that is semiotic in nature and converted into a literacy of aesthetic information. Terms such as affordance, usability, and aesthetics will define the grammar and synthesis, heuristic approach will dominate the access and education of such a digital language. In essence the key to a digital literacy is design thinking.



In contrast to conventional thinking, Design thinking is more than a methodology, it is a different way of thinking, a new intelligence and not simply a skill that can be learned like figure drawing or building a house. The design I am identifying is a new literacy needed to interpret an emerging tsunami of information. It is a way of seeing and reading and writing that maximizes the digital media and occupies a screen of pixels as opposed to a page of print. I see most schools; especially business schools describing design as a tool or way to bring disciplines together. There appears to be reluctance by business managers to see the full scope of design thinking and the value of design in business because of a perceived “soft” creative endeavor and an interpretation of a weakly speculative process. Design described by David Kelley of IDEO is ambiguous and messy which relies heavily on intuition; this is different than the structured methodologies of science, engineering and business.

Design thinking realigns the way information is processed and mixes data into a variety of consumable parts. Emerging multimedia, multisensory experiences fully engages the viewer and author, and provides opportunities for broad expressions. Design is a communication literacy that is required to maximize digital media and necessary to navigate a world that is embracing chaos and finding meaning in complexity. My research looks for the next step of extending design into everything we do and how we think. The foundation of my argument is an expanded definition of design thinking. I contend that business people; academics, scientists and engineers will not be able to adequately converse, compete, or survive in a digital society without the literacy of design.



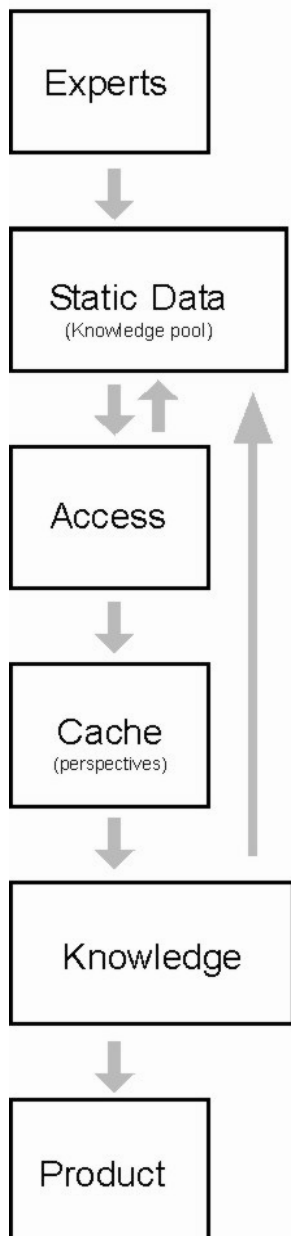
This model identifies a common space between disciplines that benefit from emerging digital media in creation and communication. To navigate this space a visual literacy is necessary which is created by design.

A&H

- psychiatry
- psychology
- philosophy
- history
- translation
- languages

An anachronistic relationship is present for disciplines which do not rely on digital technologies to create original content.

Conventional Knowledge

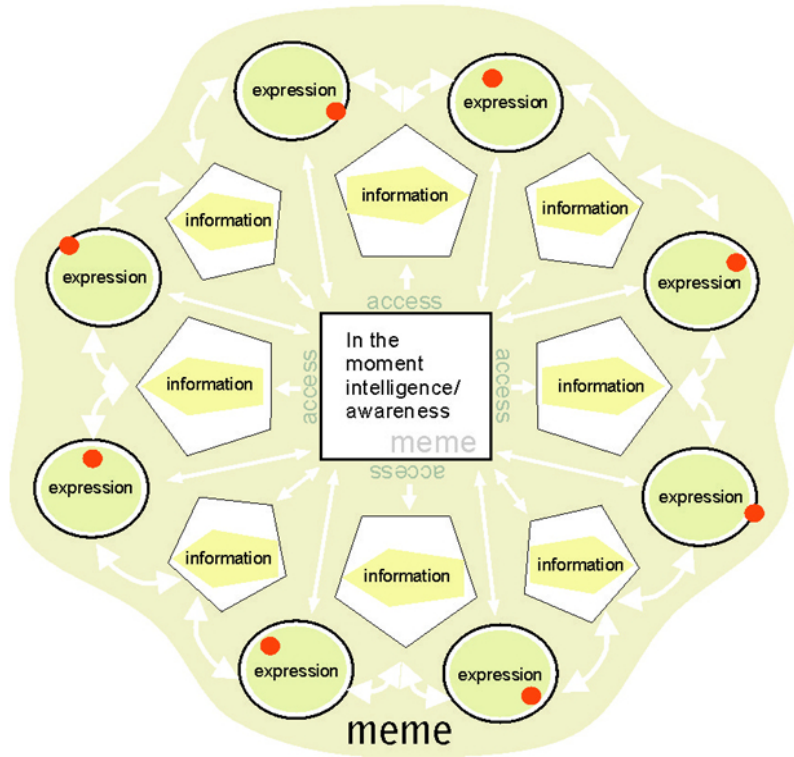


Conventional knowledge is accessed in a hierarchal, linear fashion with an expert at the top, interpreting and pushing data out, which is consumed as knowledge.

Access is limited and manipulated.

The knowledge pool is an accumulation of raw data, expert opinions and general interpretations.

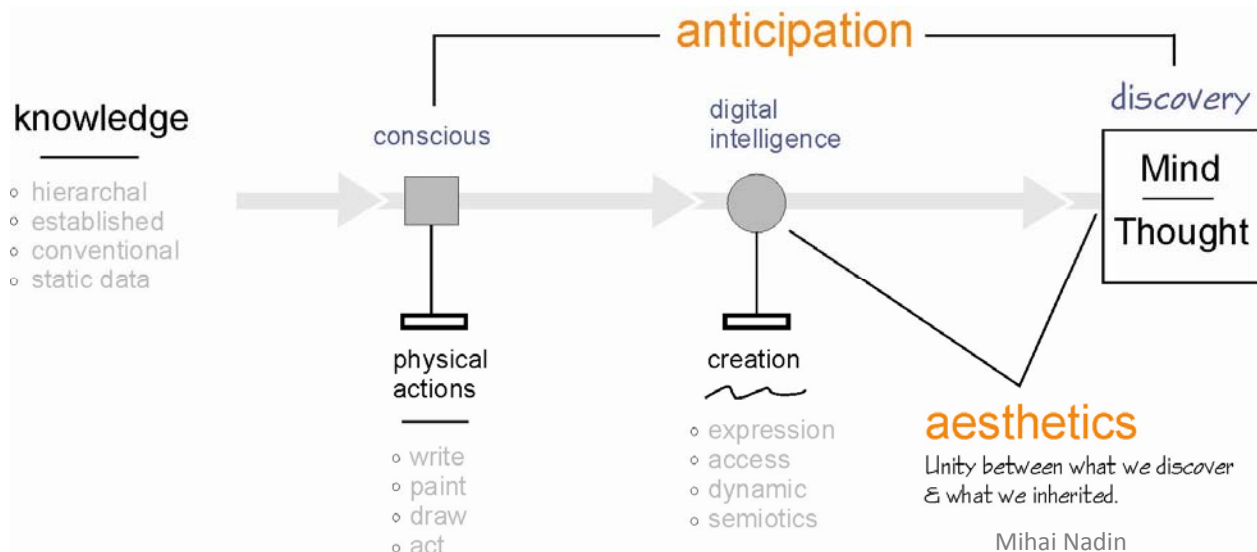
Generally, the outcome is thoughts, ideas, products which reflect a cultural and societal pool of information processed through the currently available line of knowledge.



The internet and digital information is breaking the walls of limited access and providing data en masse and from multi-directions. Digital data is not funneled from a limited source and consumers are presented with a multitude of resources. The open channels of data flow allows unfiltered expression and dynamic pools of data. Data consumption is by consumer pull and less by expert push.

Open access and data diversity blurs the lines between expert and novice.

In this dynamic matrix of information, personal opinions and memes are more likely to influence the perception of knowledge on a global scale, thus redefining information, knowledge and intelligence.

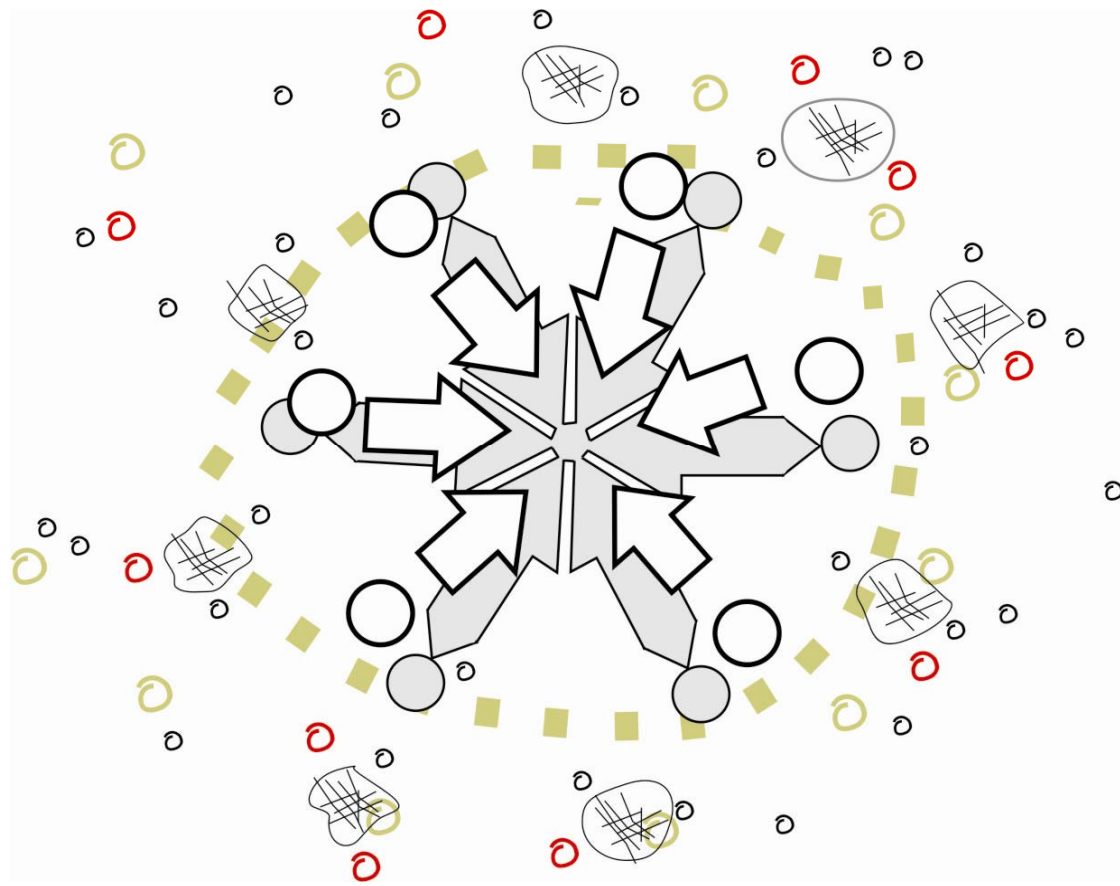


In a graphical depiction of the flow from knowledge to discovery, physical actions and a creation process occur. Anticipation happens between the conscious and discovery.

Creation is a step in the discovery process and aesthetics is the cultural and societal influences that give context and meaning to discovery.

The internet and digital media provide a rich environment for creativity and expression which can lead to discovery.

In the act of creating and considering the influences of aesthetics, a design perspective will emerge as an aptitude necessary to communicate effectively within the emerging digital literacy.

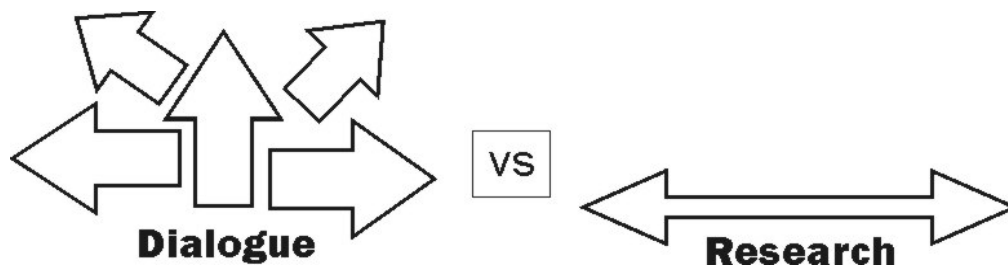


Bohm dialogue is an integral process of design and design thinking.

David Bohm was a quantum physicist in the mid-twentieth century who described his approach to dialogue as a method to resolve the Cartesian split between mind and matter, or between brain and consciousness.

Bohm dialogue provides the communication model necessary for a designer to explore digital information in a holistic manner.

The dialogic approach requires participants to interact with an awareness of surrounding influencing elements and listen with an understanding of contributing factors involved. Bohm dialogue is an effort to discover a reality and generate new understandings beyond the current knowledge pool.

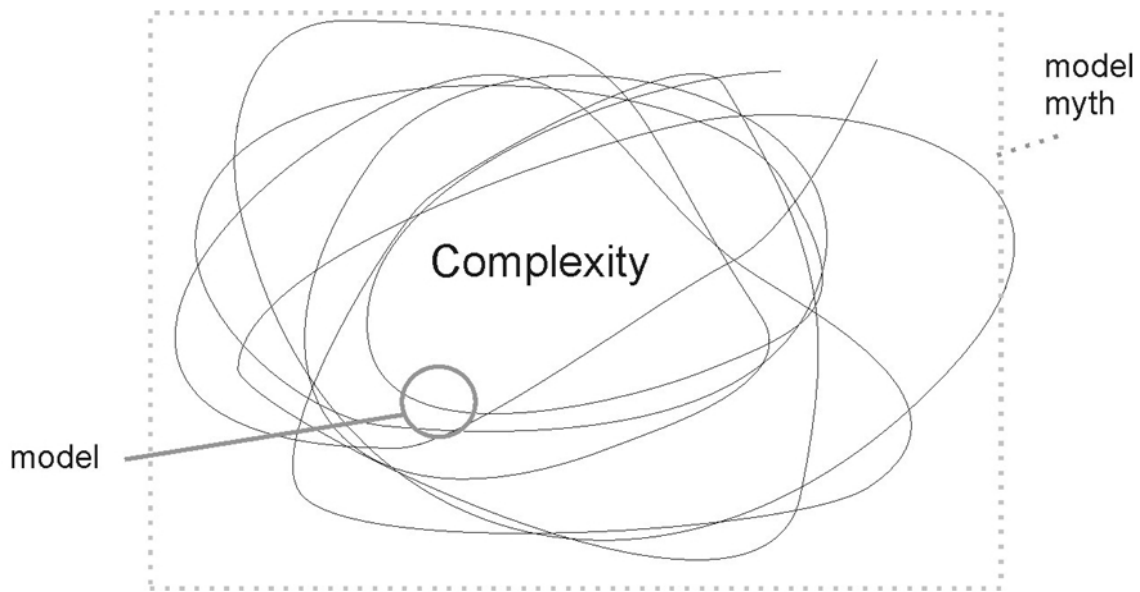


In contrast to conventional research, Bohm dialogue provides a holistic perspective and comprehensive approach to research.

Research based on the conventional knowledge model finds data that supports current paradigms and established knowledge with a disregard to unconventional sources. The traditional research model has a tendency to discount unrecognized sources and unproven techniques that are becoming prevalent.

Bohm dialogue encourages an environment of creation and discovery as opposed to simply data collection of known entities.

Bohm dialogue is an interactive relationship with the resources that encourages a heuristic approach and a synthesis of available information. Dialogue as a disciplined communication discovers unfamiliar patterns that provide insights otherwise unrecognized.



As science describes the universe in terms of complexity, chaos, and wicked problems, scientists look for patterns to better understand our world.

Design thinking provides a literacy to address complex issues and communicate solutions. The design perspective represents an approach to information that expresses concepts succinctly and illustrates ideas in an accessible manner.

Designers see patterns and express information graphically, often using models, graphs or images to express concepts, theories and ideas. Models serve as a graphical snap shot of identifiable patterns within complex systems.

A common mistake is to interpret a model as an all-encompassing explanation, when it only addresses a sample pattern within the bigger picture.

WYSIWYG Curriculum

Visual literacy

- Dynamic text
- Semiotics
- Digital presence
- Digital rhetoric
- Point of View

Expression

- Design vs. Code
- Information design
- Authorship
- Dialogue
- Power of models

Digital Communication

- Dialogue – generative - community
- Virtual communication
- Facilitated communication
- Common creative tools – new vocabulary

New Intelligence – Design: An emerging literacy

- Design Thinking - patterns
- New knowledge hierarchy
- Cluster alternative to linear
- Access
- Think outside the cheese
- Vitruvian man

History

- Technology
- Communication
- Virtual
- Design
- Information
- Thinking & creativity

Information Design

- Aesthetics
- Simplicity
- Organization
- Search

Data Distribution

- Creation process
- Media
- Platforms

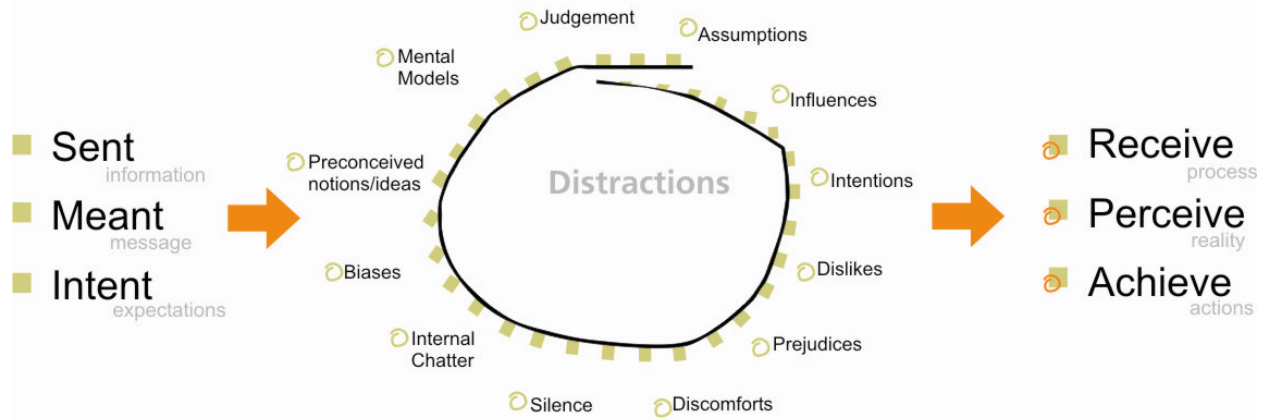
Education

- Relevance
- Re-write Design myths
- Masters of heuristics vs. Manager of algorithms
- Dialogue vs. Research

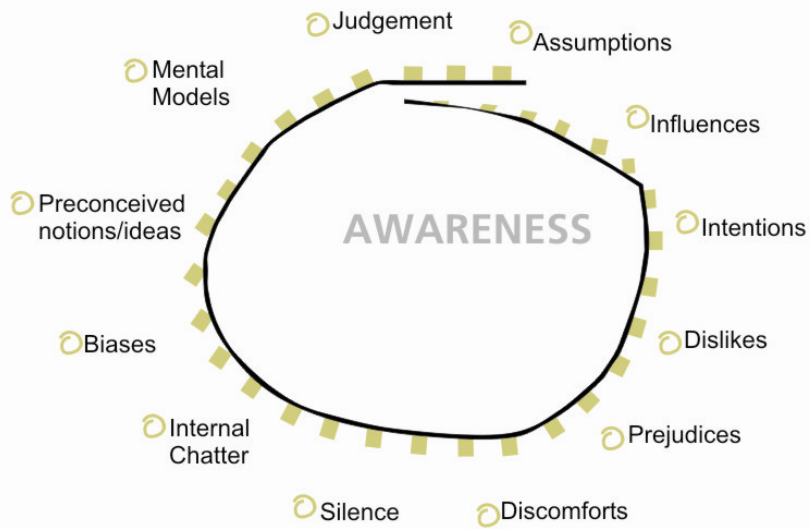
Community

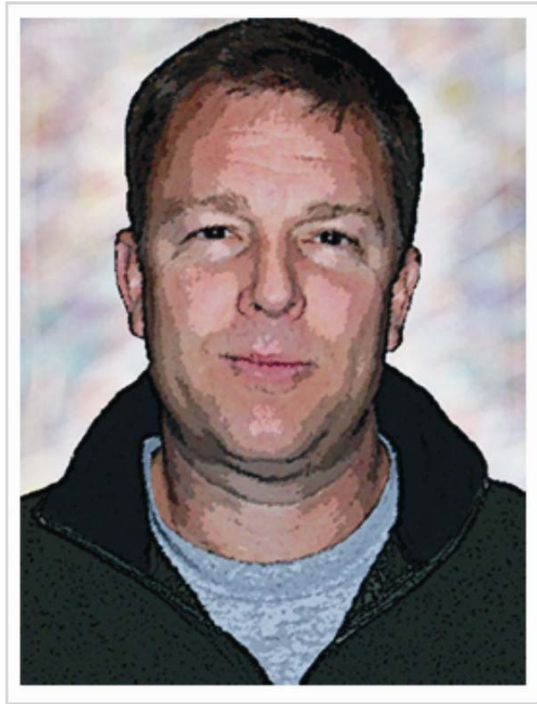
- Collaboration
- Connectivity

Gap Analysis



Solution





Scott Trent is a graduate student at the University of Texas at Dallas in the school of Arts and Technology, pursuing his Ph.D. His area of emphasis is digital communications in the new school of Emerging Media and Communications.

ATEC

UTD *emac*