

IdeaMurals: a Graphical Interface for Supporting Ideation in Public Policy Knowledge Work

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ABSTRACT

The creativity and innovation found in knowledge work such as public policy is often hidden. This “hidden-ness” is likely due to the predominantly textual representation of the work done in this domain. Unlike other areas that are more design-oriented, public policy knowledge work generally does not rely on, or produce, graphical artifacts which can showcase the innovation. In contrast, for domains such as engineering-design or the fine arts, the generation of such artifacts is inherently a part of the work itself.

This distinction between inherently graphical knowledge work versus more text-based knowledge work is important for two reasons. First, it explains why most creativity support tools tend to be created for more design-oriented domains. When an area of knowledge work produces many sketches, diagrams and models, it is easy to see the creativity. Therefore, the tendency is to support what can be seen. Secondly, this distinction highlights the difficulty of supporting creativity in text-based knowledge work. The more design-oriented areas have a ready road-map for how to support creativity because so much of it is visible, particularly the practices and methods involved. However, this is not the case with public policy. Much of the ideation work is hidden in the policy maker’s thoughts; and when they are expressed, the creativity and innovation remains hidden in large amounts of dense text.

IdeaMurals attempts to accomplish two goals. The first is exploring how creativity and innovation can be supported for a domain that is largely ignored. The motivation for this is based on the fact that public policy researchers do much to increase innovation at a national level. The knowledge work they do shapes how the innovation work of others is supported at the policy level. Therefore, it seems appropriate to seek ways to support the creativity of those whose work is so deeply tied to innovation.

The second goal is to explore how visual elements can be leveraged to support the ideation process of policy work. Unlike the design-oriented domains, a natural road-map for how to proceed seems unavailable. However, the framework for supporting creativity as proposed by Shneiderman [2] may provide some guidance. Based on this

framework, the starting point seems to be in how the information relevant to ideas is represented and managed.

Therefore, the organizing principle of IdeaMurals is to support ideation in public policy based on how these ideas are constructed. The construction of these ideas is framed as being analogous to the construction of art compositions. Like art compositions, ideas in public policy will be composed on a “canvas”. Also, when composing an art piece, many disparate visual elements come together to form an integrated whole. Likewise, the idea composition created will consist of many disparate information elements which come together to represent a larger complex idea. However, unlike a true art composition, IdeaMurals will use existing art as the initial “canvas” for the idea composition. The art image will be used to provide visual landmarks for sub-ideas that occupy the canvas.

The tasks that IdeaMurals initially seeks to support are:

1. Idea play (developing of an idea) – support of this task will focus on providing more expressive ways of denoting relationships between the ideas.
2. Idea status (taking time off and then coming back to an idea) – support of this task will enable researchers to incubate ideas over longer periods of time.
3. Idea storage (seeing all the raw data) – support of this task will enable researchers to keep information relevant to their ideas in close proximity.

BIOGRAPHY

As an undergraduate, I studied international affairs and public policy which makes me cognizant of the lack of support for creative work in this domain. Now as a graduate student in the Information Security program, I am researching different representational paradigms for conveying abstract, technical information to non-expert computer users through a direct-manipulation interface. I plan to use this research to inform my future work with IdeaMurals.

REFERENCES

1. Shneiderman, B. Creating creativity: user interfaces for supporting innovation. *ACM Transactions on Computer-Human Interaction*. 7, 1, Mar. 2000