

Challenges and Opportunities for Giving Credit in Science Museums

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About Me

I am working at the intersection of interactive data visualization, feminist theory, and game studies.

Curious about how knowledge is made — and who gets to make it. I believe design is always a statement, and I'm interested in making that statement conscious.

Much of my current work unfolds in and around science museums, where complex ideas meet wider publics.



About Our Lab

We explore new ways for people to interact with data, technology, and digital materials in meaningful ways.

Our research is centered in real-world, situated contexts and draws from a plurality of approaches and disciplines to understand and reshape our digital lives.



Where we are

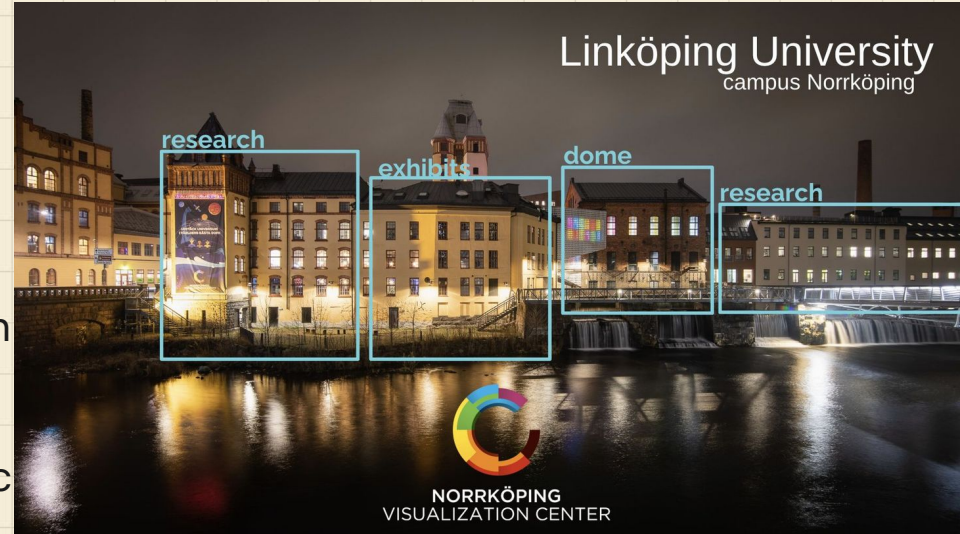
- Norrköping is a city in Sweden, close to Linköping.
- Our campus is by the river, in a former industrial area.
- This is where our lab is based.



Visualization
& Interaction
Design Lab

Our local context

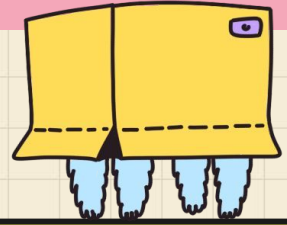
- A public science museum in Norrköping
- Interactive exhibits, dome shows, and science communication
- A frequent context for our lab's research and collaborations
- A place where visualization meets public audiences



ABOUT THE PROJECT

How We Got Here

- We were designing a new interactive exhibit exploring the question: **What is data?**
- Near the end of the process, we started asking: **how should we credit the people involved?**
- Looking around the museum, we noticed something striking:
 - interactive exhibits had no visible credits
 - dome shows in the same building had full credit reels
- That discrepancy became the starting point for this study.



Why science museums?

The Setting

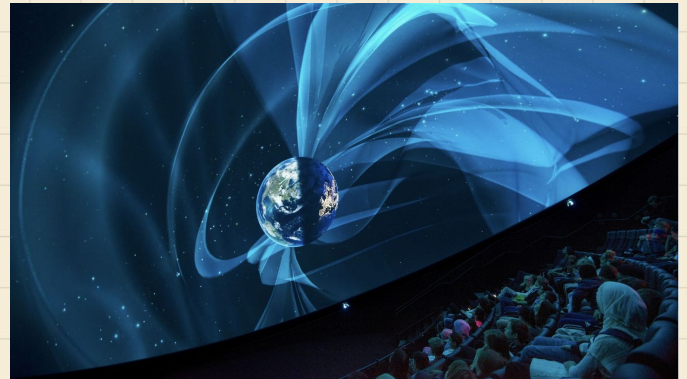
Science museums are public-facing knowledge environments.

They combine:

- interaction
- storytelling
- learning
- institutional values

They make science visible — but also shape what remains invisible.

For visualization and HCI, they are places to study how knowledge is designed, communicated, and experienced in public.



METHOD

What we did

- Round 1: 8 interviews with local museum staff, December 2024, in person
- Round 2: 3 interviews with senior exhibit managers at large science museums
- Analysis: diffractive approach, attending to tensions, contradictions, and situated meanings

11

Interviews

2

Countries

4

Museums

~1hr

Each



FINDINGS

The norm

Interactive exhibits are usually presented as institutional outputs, not authored works.

But credit still matters:

- Personal
 - Pride in the work; being able to show family and friends; feeling care and responsibility for design decisions.
- Career
 - Portfolio-building; future opportunities; being contactable; having evidence of experience.
- Institutional
 - Signalling legitimacy; demonstrating ethical practice; communicating the educational mission of the museum.

P4: It's not that much extra work. It's just not clear. No one has taken responsibility to figure out where we should add it or what names to include.

Key takeaway

Credit is not missing because it has no value.

It is missing because non-crediting has become normal.

FINDINGS

Credit Is Difficult, So...

The challenge

- The hard part was not naming contributors.
- The hard part was drawing boundaries

Include everyone →
list so long it loses
meaning

Exclude anyone →
implies their work
didn't count



P7: The question is always where to draw the line... The bigger [the credit list] gets, the less helpful it is to the people whose creativity was involved in making this product.

Why this is hard

Because exhibit work is distributed across overlapping roles, evolving projects, maintenance, support work, and institutional hierarchies, recognition often shifts into temporary or internal forms.

DISCUSSION

A Design Space for Credit

Producing Credit Data

Credit is not simply waiting to be recorded.

It has to be negotiated.

Visualization could help contributors discuss:

- who contributed
- how they contributed
- what should be made visible
- where boundaries should be drawn

Credit as negotiated data



Data as Design Material

CHI 2017, May 6–11, 2017, Denver, CO, USA

A Design Perspective on Data

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ABSTRACT

Empirical studies invariably show that data generation is

data collection patterns of smartphone users, and it continues as counts are generated and aggregated over time.

then, to “use” step count data as an element design, perhaps to visualize neighborhood or to suggest health paper, I illustrate how all “use” data is never merely the object. I show how data is a multilayered set of and how data use is the

really simple—a data point like the number of steps is some kind of *conceptual*. The number of steps is a positive integer of whole *collection processes* that spatial infrastructure (how *gregation processes* that pendant collection (the particular device across my argument. I trace the infrastructure development, demonstrate how design a variety of examples. (wn from a research study, sgs. It’s an essay in which one form of evidence.) To n, the next section briefly tion as an interpretively rformance, as presented

Input Visualization: Collecting and Modifying Data with Visual Representations

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Figure 1: The 50 input visualizations in our collection, organized into seven purposes (■ Individual Reflection, ■ Public Group Reflection, ■ Public Activity Documentation, ■ Data Discussion, ■ Survey, ■ Planning, and ■ Organizing). Examples are numbered from ①–⑤. Browsable version: <https://bit.ly/input-Vis>. Supplemental material: <https://osf.io/bw3gp>.

ABSTRACT

We examine *input visualizations*, visual representations that are designed to collect (and represent) new data rather than encode preexisting datasets. Information visualization is commonly used to reveal insights and stories within existing data. As a result, most

the starting point for design, through which that data is mapped to visual encodings. Meanwhile, the implications of visualizations as inputs and as data sources have received little attention—despite the existence of visual and physical examples stretching back centuries. In this paper, we present a design space of 50 input visualizations

DISCUSSION

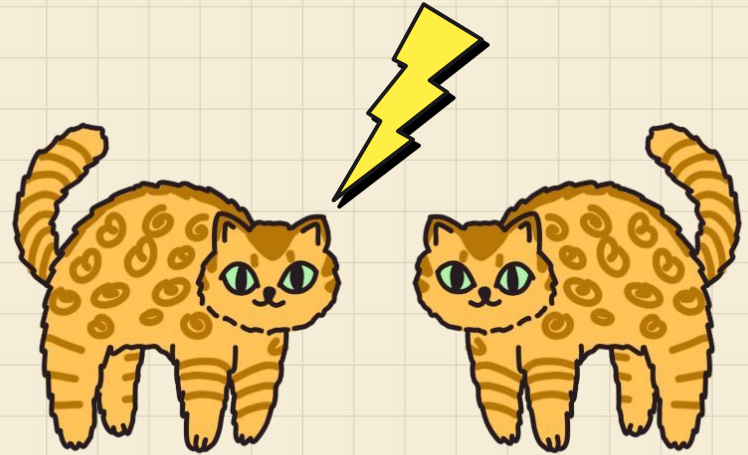
A Design Space for Credit

Visualizing credit

A visualization alone cannot solve crediting.

Crediting also depends on shared norms, clear responsibility, production processes, maintenance practices, and sector-level conversations.

It has to become part of how exhibits are made — not something added at the end.



CONCLUSION

So...

- Credit is not a finishing touch.
- It is a representational choice with epistemic consequences.
- Science does not just happen. It is made by people.
- Making that visible is an important role for visualization.



Follow the project



kateblomgren.github.io

Where This Goes Next

Crediting in interactive digital exhibits

- Tools for negotiating credit, not just collecting it
- Visual forms for distributed, overlapping, unfinished contribution
- Different audiences

Dissemination to the field

- workshops with practitioners
- guidelines for museums
- co-design with exhibit teams

Lets
talk!



AI literacy game exhibit

A public museum game where visitors learn how machine learning works by "playing like a model."

- The "AI-vibe" problem — what implicit messages about AI does a game like this communicate?

Bigger question

What does it mean to design for situated knowledge in public spaces?



Thank you!

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