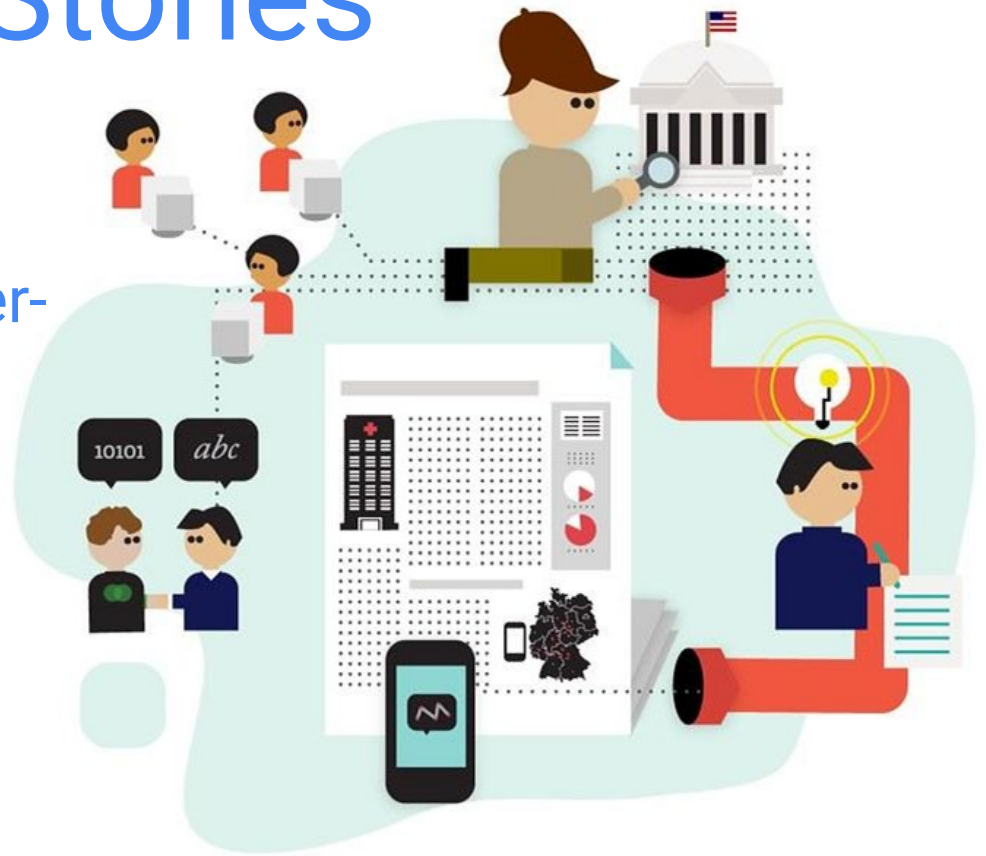# Telling (User) Stories

Empathy Mapping from User-Centered Design and Agile
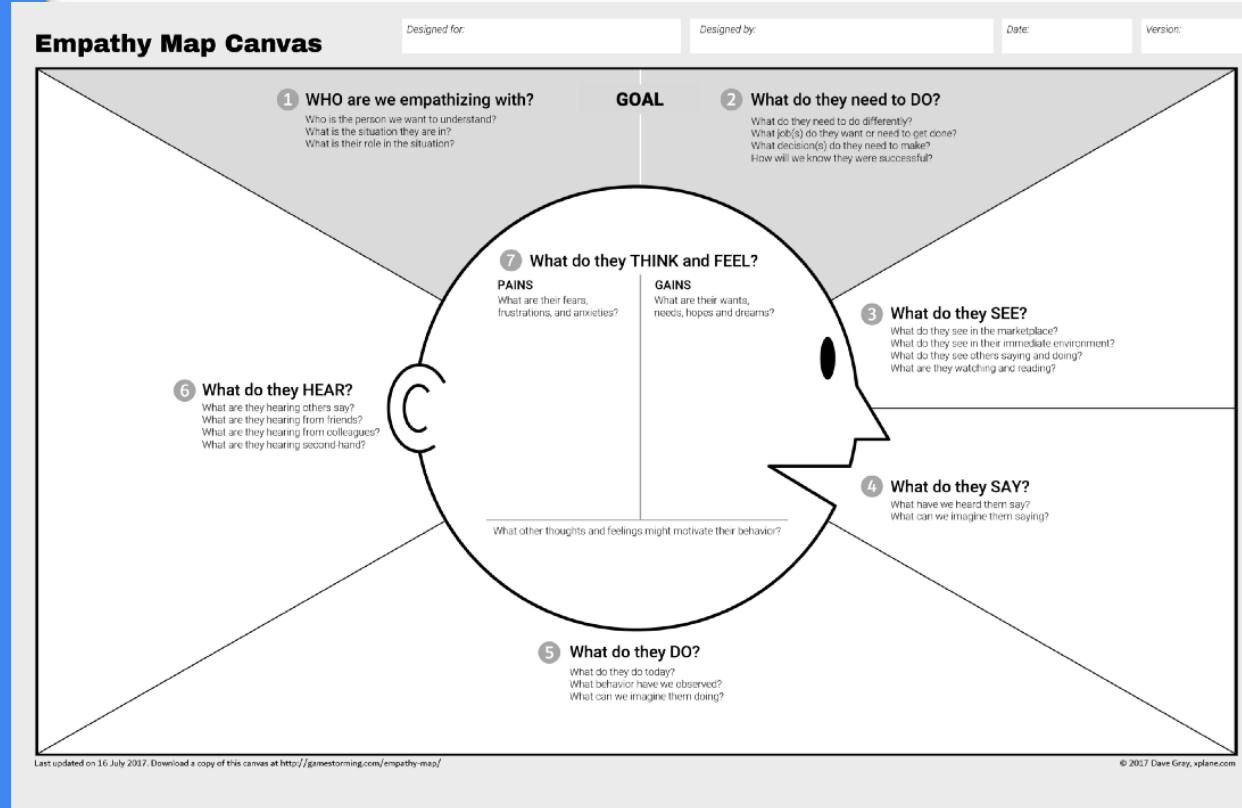
Sam Stehle
US Department of State

Know the User

Empathy Mapping

- Translate user observation into effective design

- Create a shared understanding

- Learn about user experience that they may not know either

David Gray 2017, "Updated Empathy Map Canvas" https://medium.com/the-xplane-collection/updated-empathy-map-canvas-46df22df3c8a

Virtual Reality in the Geography Classroom

- Immersive Virtual Environment facilitating a collaborative geomorphology lesson

- Creating heuristics to guide development of the technique

- "Nuggets of understanding" when observations don't match user reports

Young, Gareth W., et al. "Exploring virtual reality in the higher education classroom: Using VR to build knowledge and understanding." *Journal of Universal Computer Science* 8 (2020): 904-928.

Heuristics for VR in the Classroom

- Derived from
  - Observation of user in VR
  - User questionnaire
  - Observation of teammates
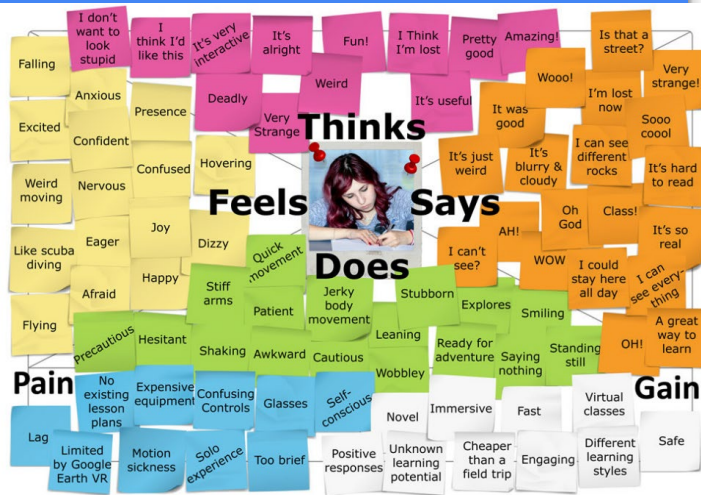
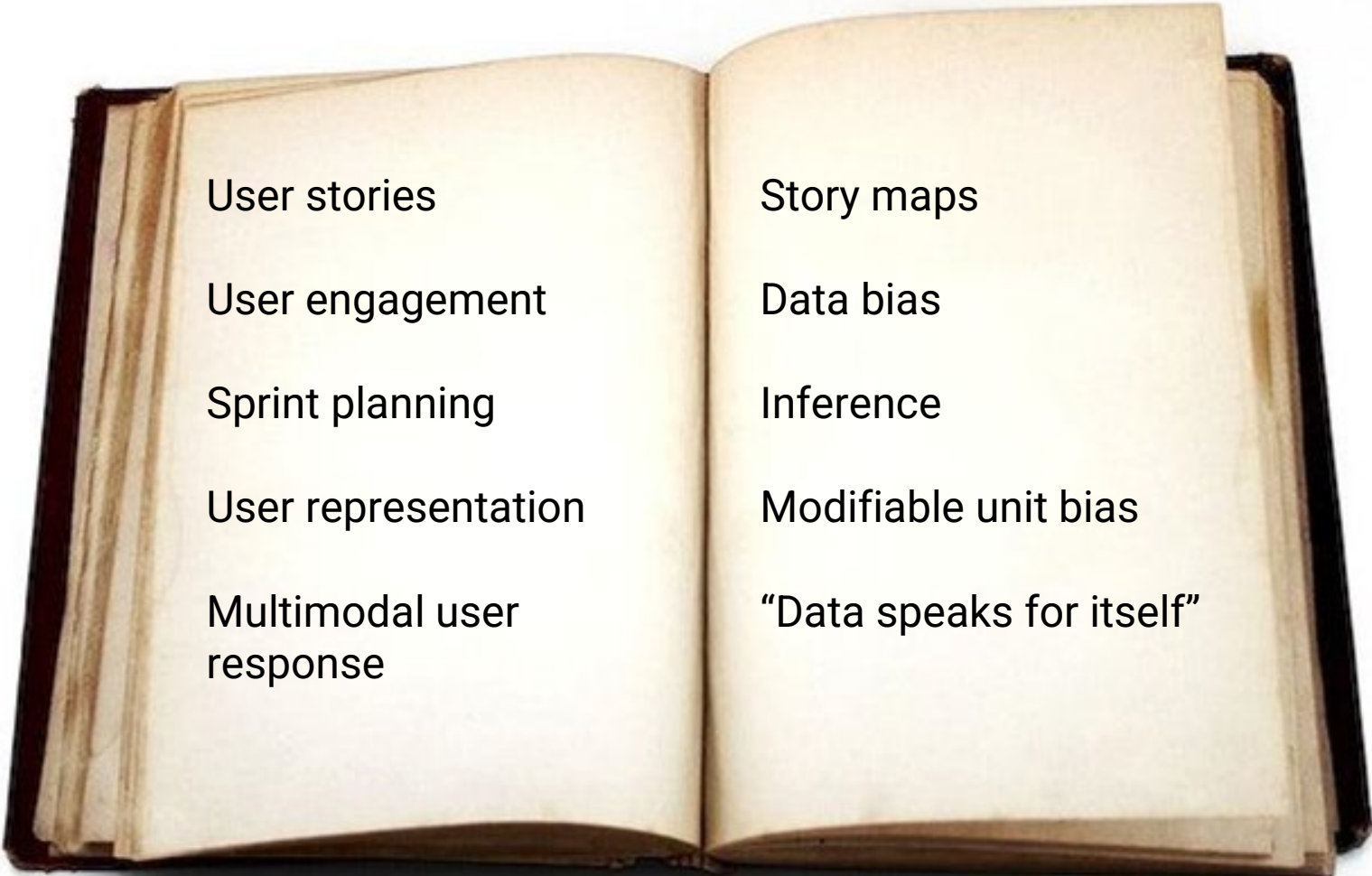| Heuristic	Definition
Focus	Engagement with learning materials
Provocation	Imaginative thinking
Stimulation	Demonstrate understanding and expertise to others
Collaboration	Work together to enhance learning materials
Control	Feel responsible for improving skills and knowledge
Digital Life	Develop digital citizenship
Learner Skills	Enhance different learning experiences and opportunities
Multimodal Experience	Connect all of the student's sensing

Young, Gareth W., et al. "Exploring virtual reality in the higher education classroom: Using VR to build knowledge and understanding." *Journal of Universal Computer Science* 8 (2020): 904-928.

One Large Dose of Empathy
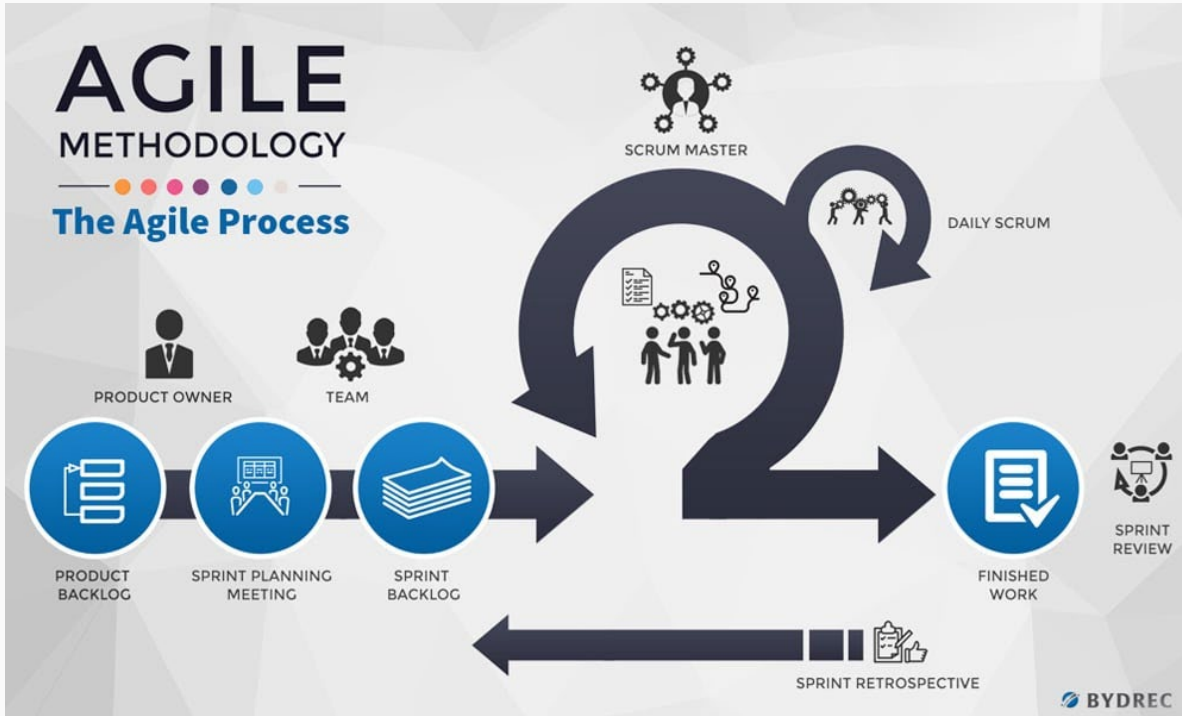
Agile Methods

- Agile development is built around participation:

- Roles:
  - Scrum master
  - Product owner

- User stories
  - As a - - I want - - so that - -

- Sprint retrospective

User stories

User engagement

Sprint planning

User representation

Multimodal user response

Story maps

Data bias

Inference

Modifiable unit bias

"Data speaks for itself"

Analyst/Researcher/Developer

is a user too!

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