

Motivation, participation and social gaze control in Lingscape

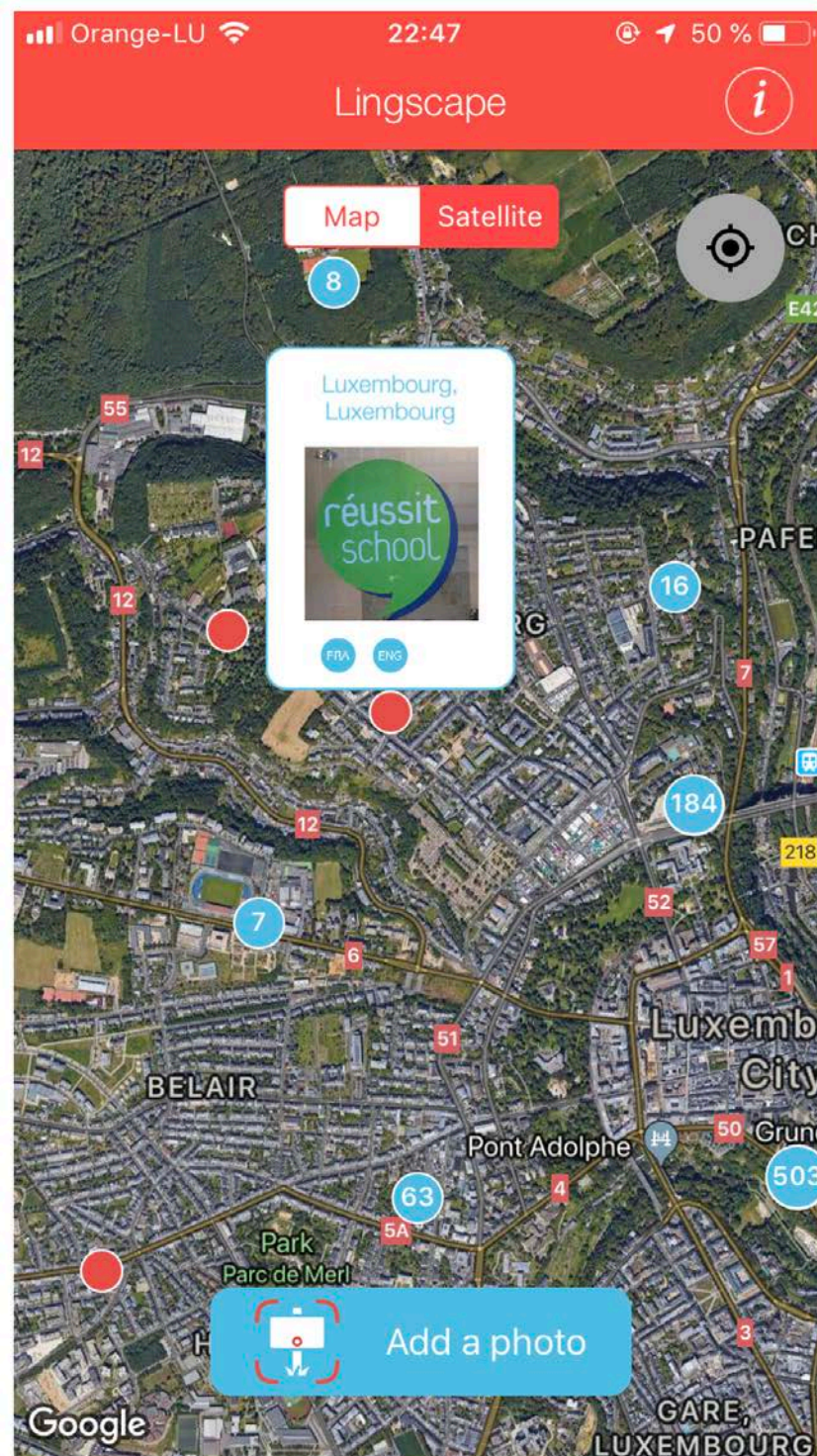
Christoph Purschke

Technically Tampere, 23.10.2025

Lingscape – A research platform for LL projects



The Lingscape project



- **Mobile research apps** (iOS, Android) for LL projects
- Developed and hosted at the **University of Luxembourg**
- First published in **September 2016**

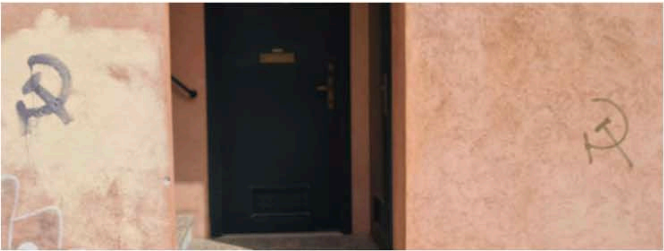









































Save the date!

25.09.2026 // Lingscape is 10

Half-day colloquium (streamed online)

Subscribe to the newsletter for planning info:

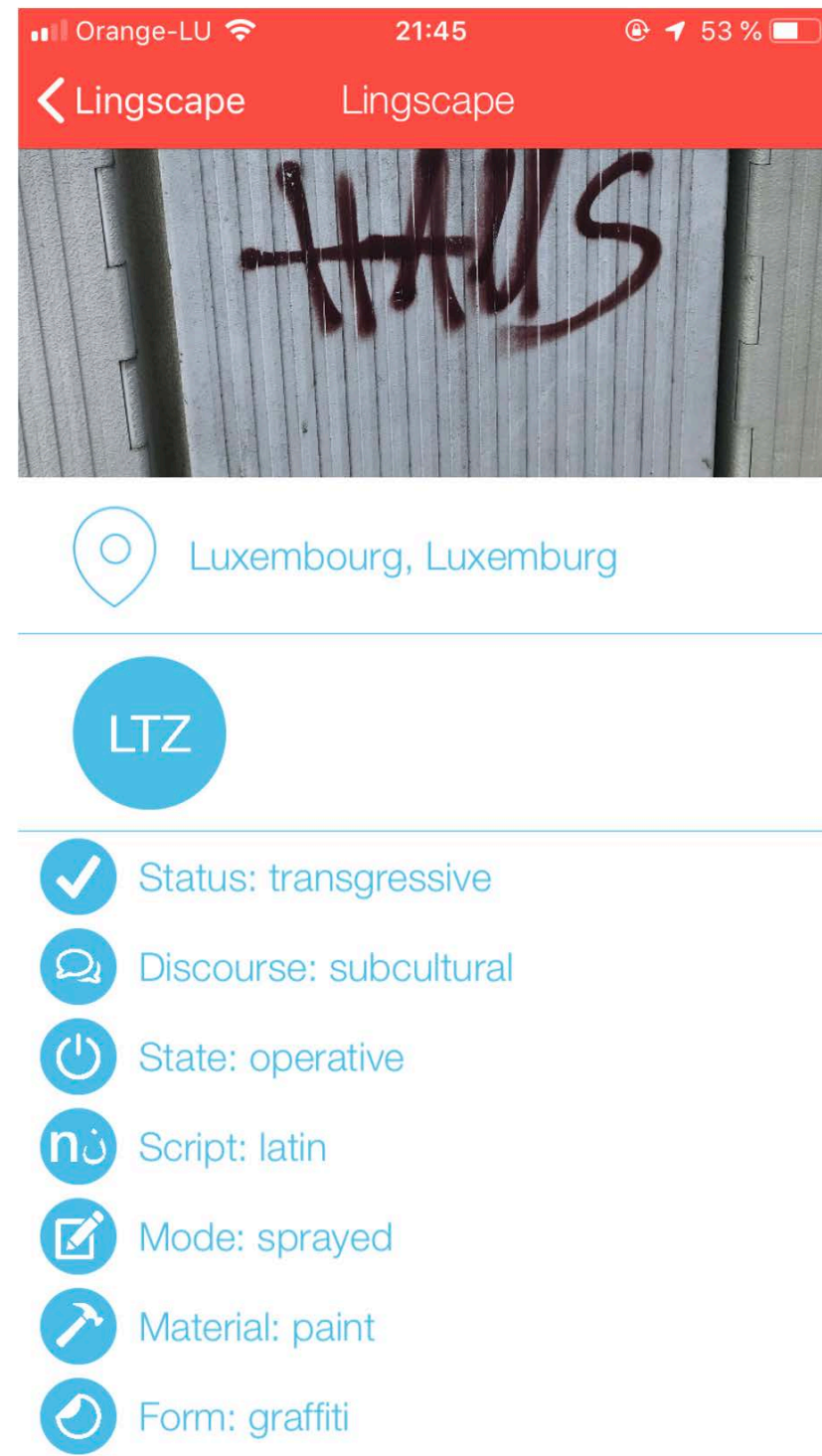
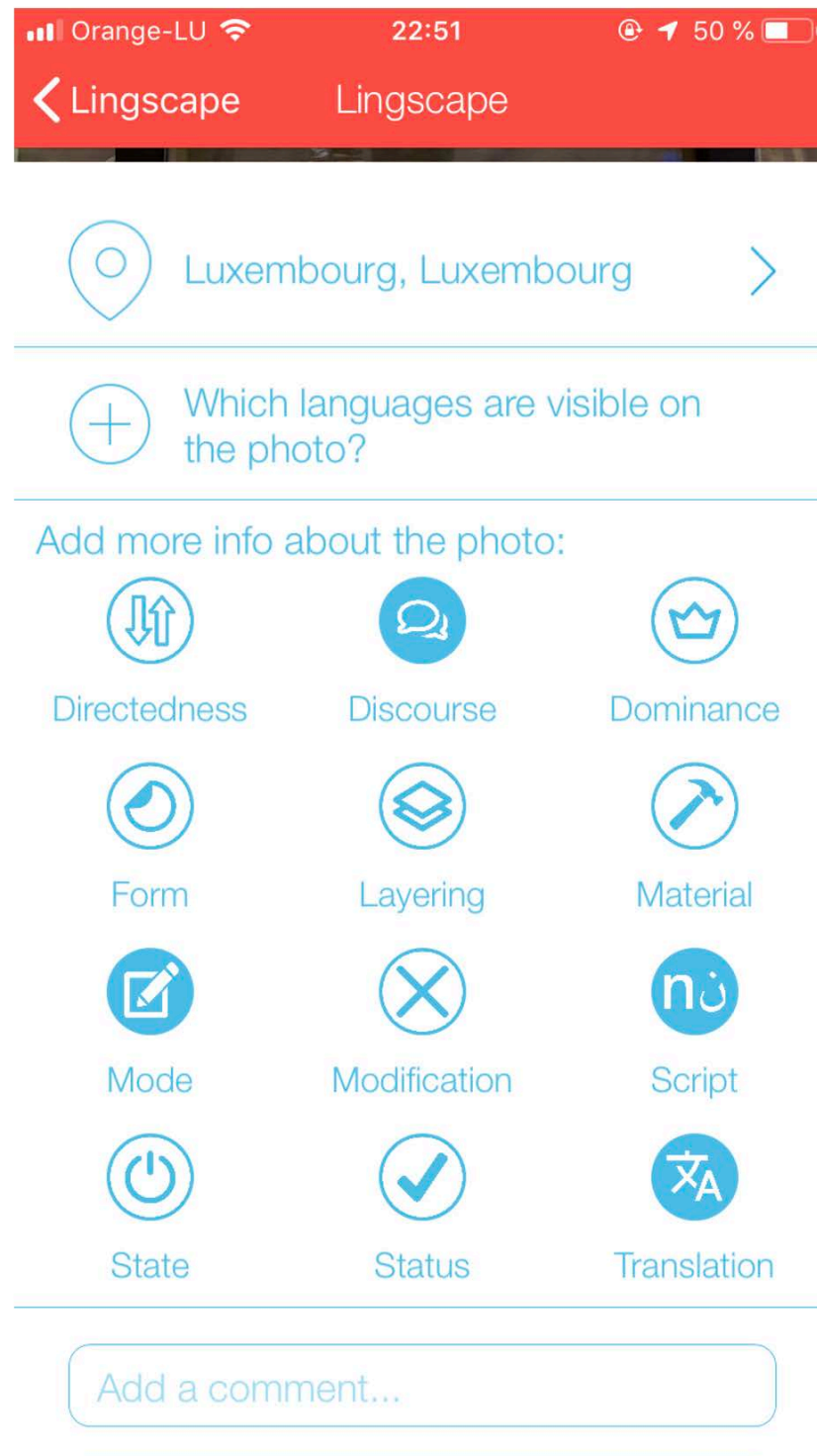
<http://eepurl.com/g3FJ2T>

Lingscape		Lingscape Public Image Repository			
	97212	Kurt Feyaerts	Italy Venezia	NOL	        
	97209	Kurt Feyaerts	Italy Venezia	DEU ENG	              
	97208	Kurt Feyaerts	Italy Venezia	ITA	              

The Lingscape project

- **Web platform** for satellite projects
- Public **image repository** for project data
- Currently ca. **160k images** contributed by **~600 projects**

The Lingscape project



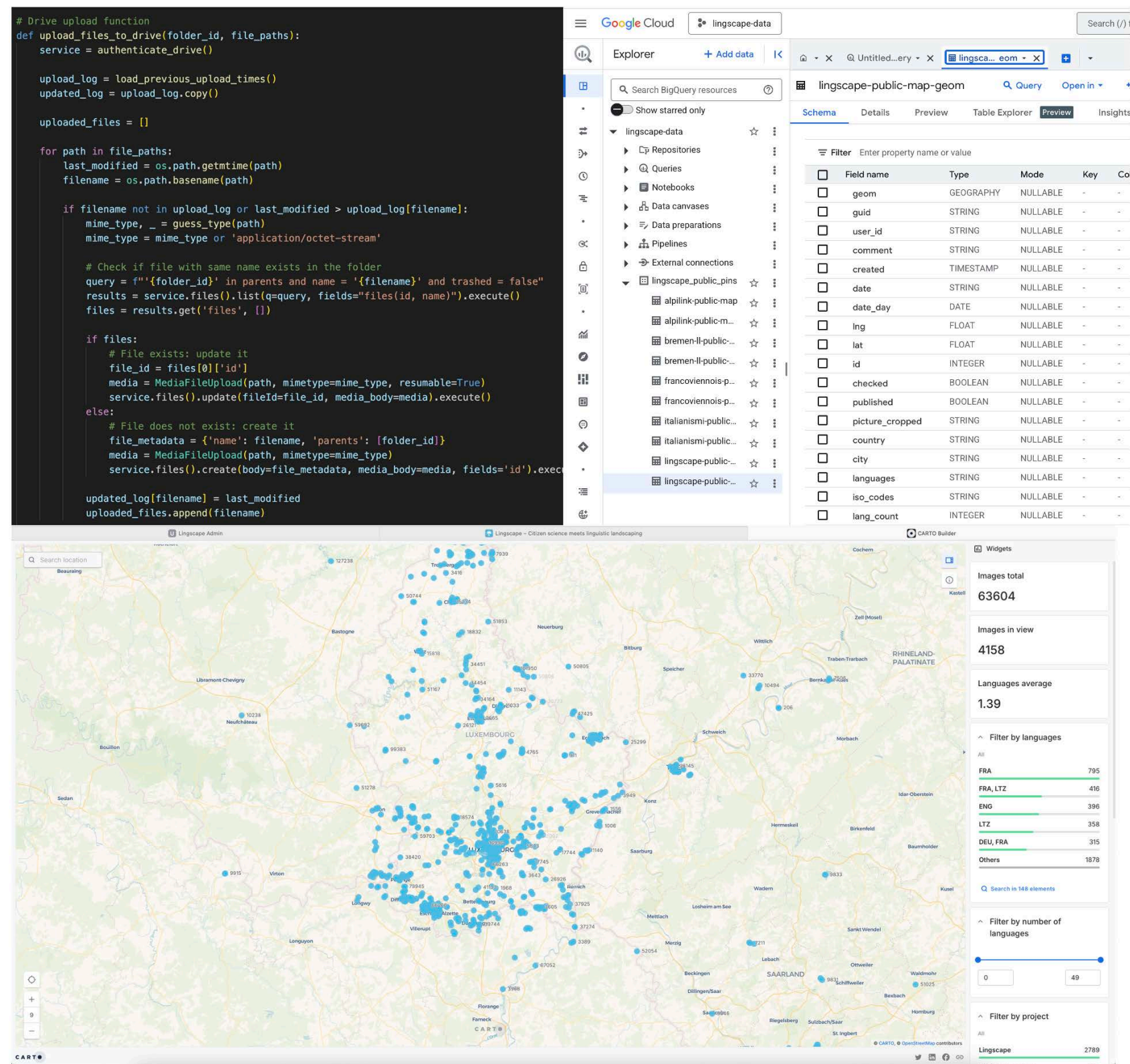
- Customizable **analytical taxonomies** for data annotation
- **Data & group management** features
- Personal **tech support** for project admins

The Lingscape project

— Interactive **map representation** for analysis (Carto)

— **Data processing** pipeline (Python, Google Cloud)

— **Open-source code base** (apps & platform)





Coming soon

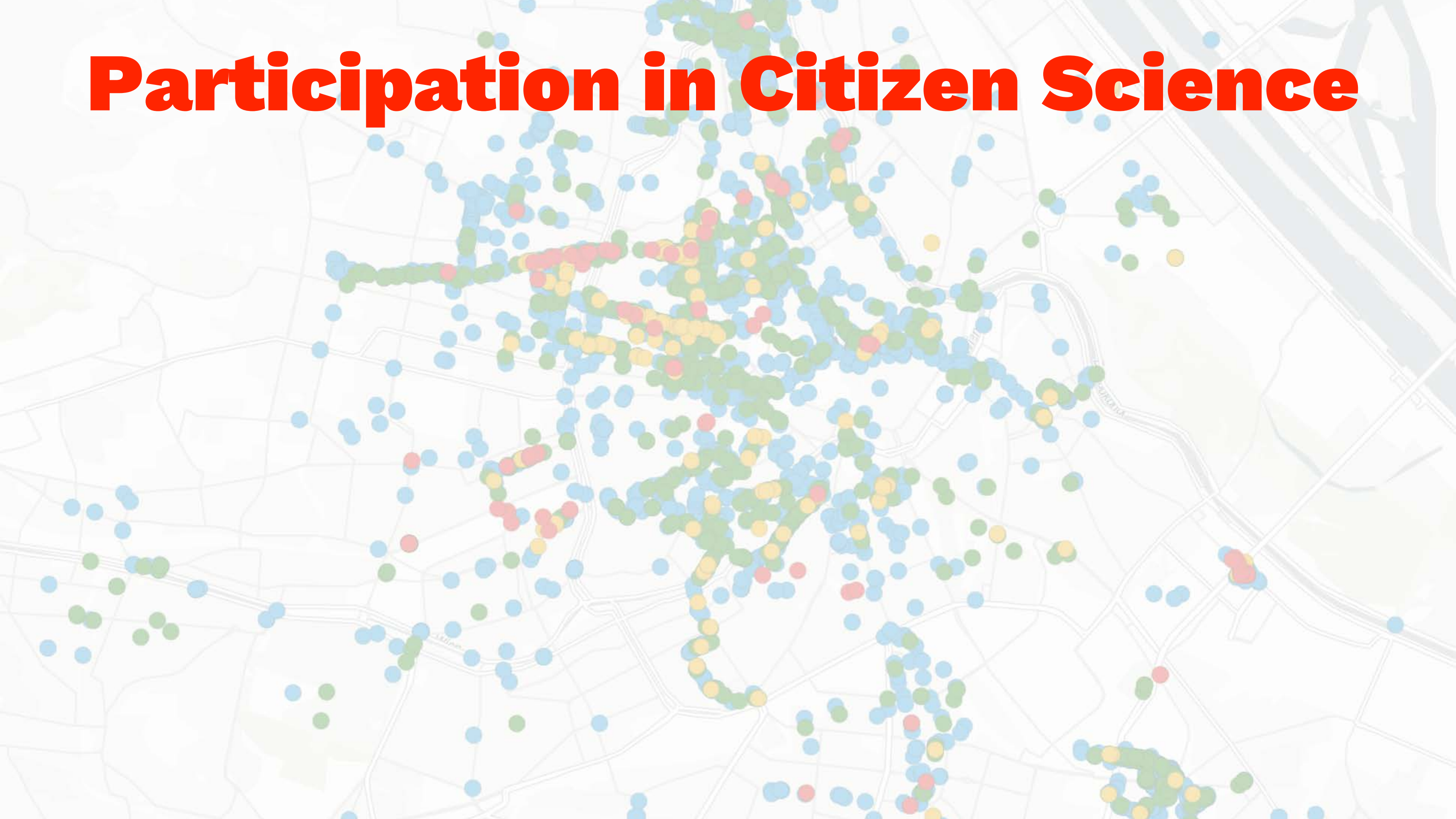
- **New platform features:** user registration, free text taxonomies, term translations
- **Platform renovations:** new version of the repository & project admin area
- **Mobile apps:** New cross-platform version of the apps (Flutter)



Probably not coming soon

- **AI features** and processing
- **Gamification** elements (rankings, challenges)
- My retirement

Participation in Citizen Science



Models of participation in Citizen Science

Bonney et al. (2009)

1. **Contributory projects**, "which are generally designed by scientists and for which members of the public primarily contribute data"
2. **Collaborative projects**, "which are generally designed by scientists and for which members of the public contribute data but also may help to refine project design, analyze data, or disseminate findings"
3. **Co-created projects**, "which are designed by scientists and members of the public working together and for which at least some of the public participants are actively involved in most or all steps of the scientific process"

Models of participation in Citizen Science

Haklay (2013)

1. **Crowdsourcing:** people participate as **sensors** —not knowing how the data contributes to addressing scientific questions
2. **Distributed intelligence:** participants carry out **cognitive tasks** for data interpretation
3. **Participatory science:** participants contribute to the **problem definition** and carry out **data collection** tasks
4. **Extreme citizen science:** participants are deeply involved in the research process through **co-creation** which supports collaboratively identifying the problem, forming the research questions, designing the tools and methods to support data collection, and collecting and analyzing the data

Models of participation in Citizen Science

Senabre Hidalgo et al. (2021)

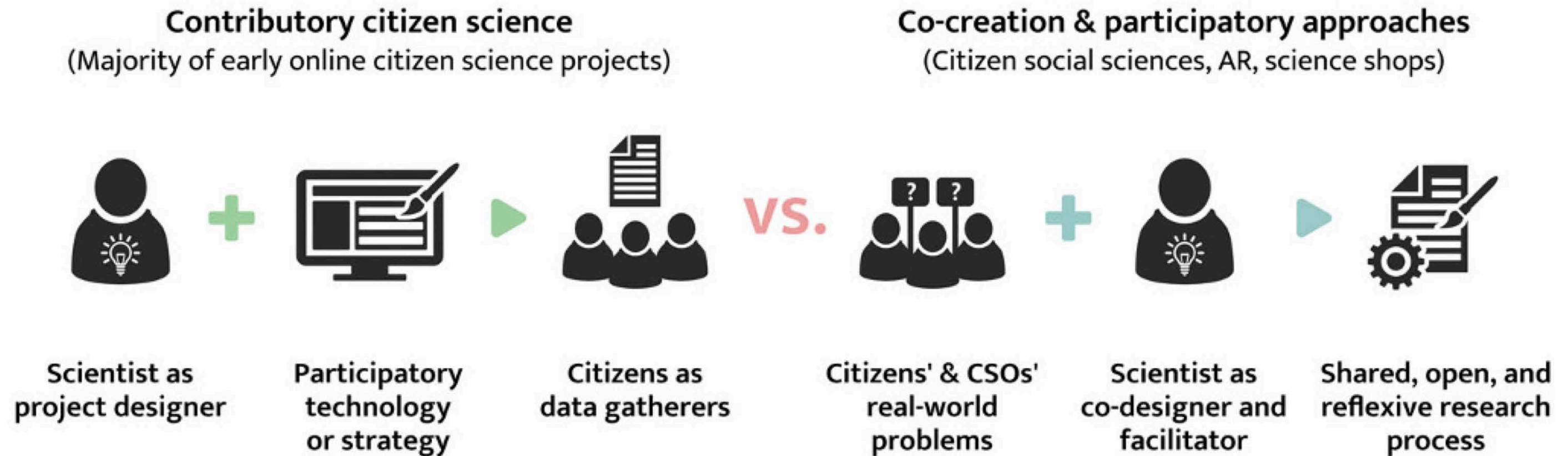


Fig. 11.1 Contributory and co-creative approaches in science: citizen social science, action research (AR), science shops, and civil society organisations (CSOs)

Models of participation in Citizen Science

Schrögel & Kolleck (2019)

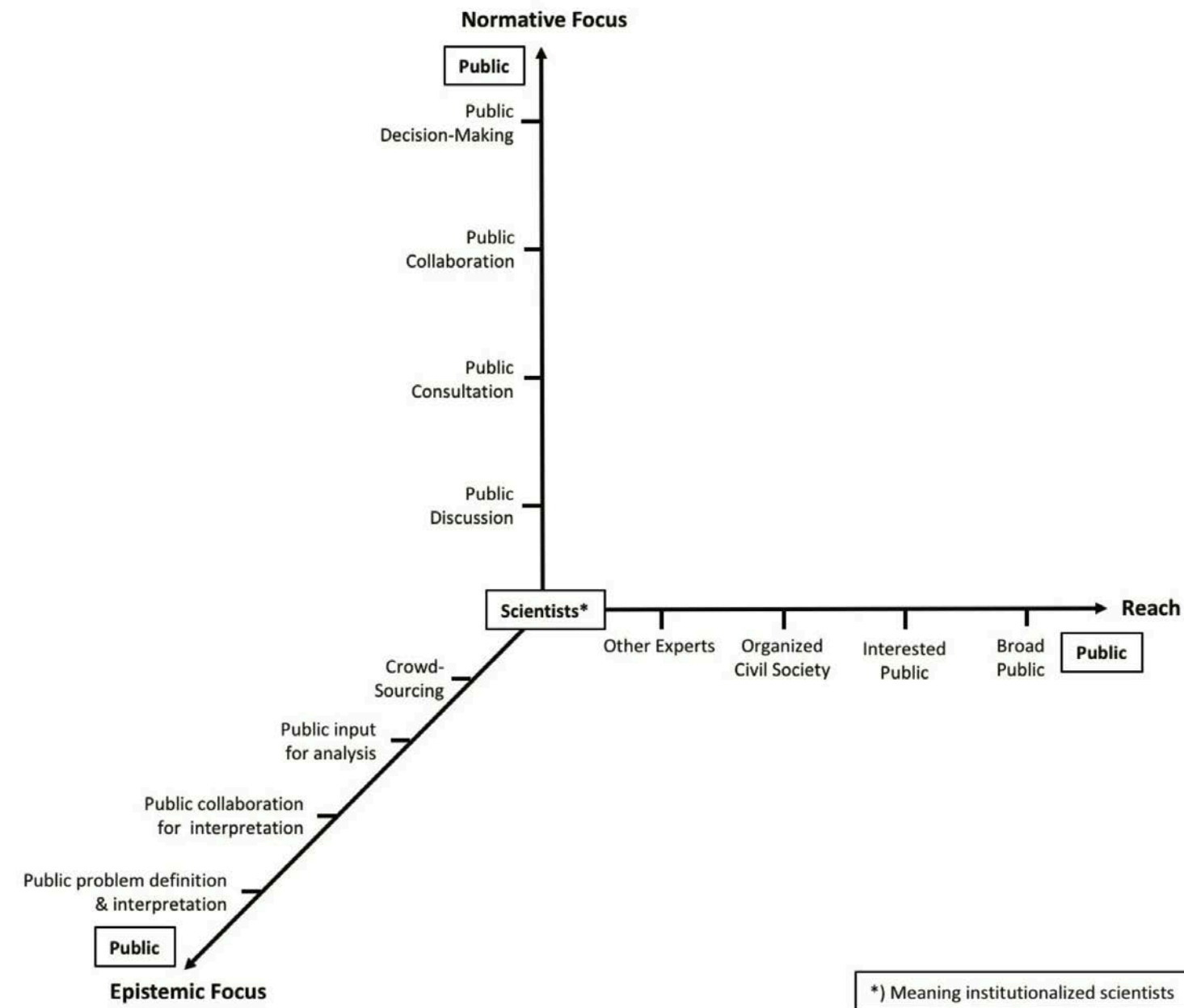


Figure 2: The participatory science cube.

Levels of participation in Citizen Science

Schrögel & Kolleck (2019)

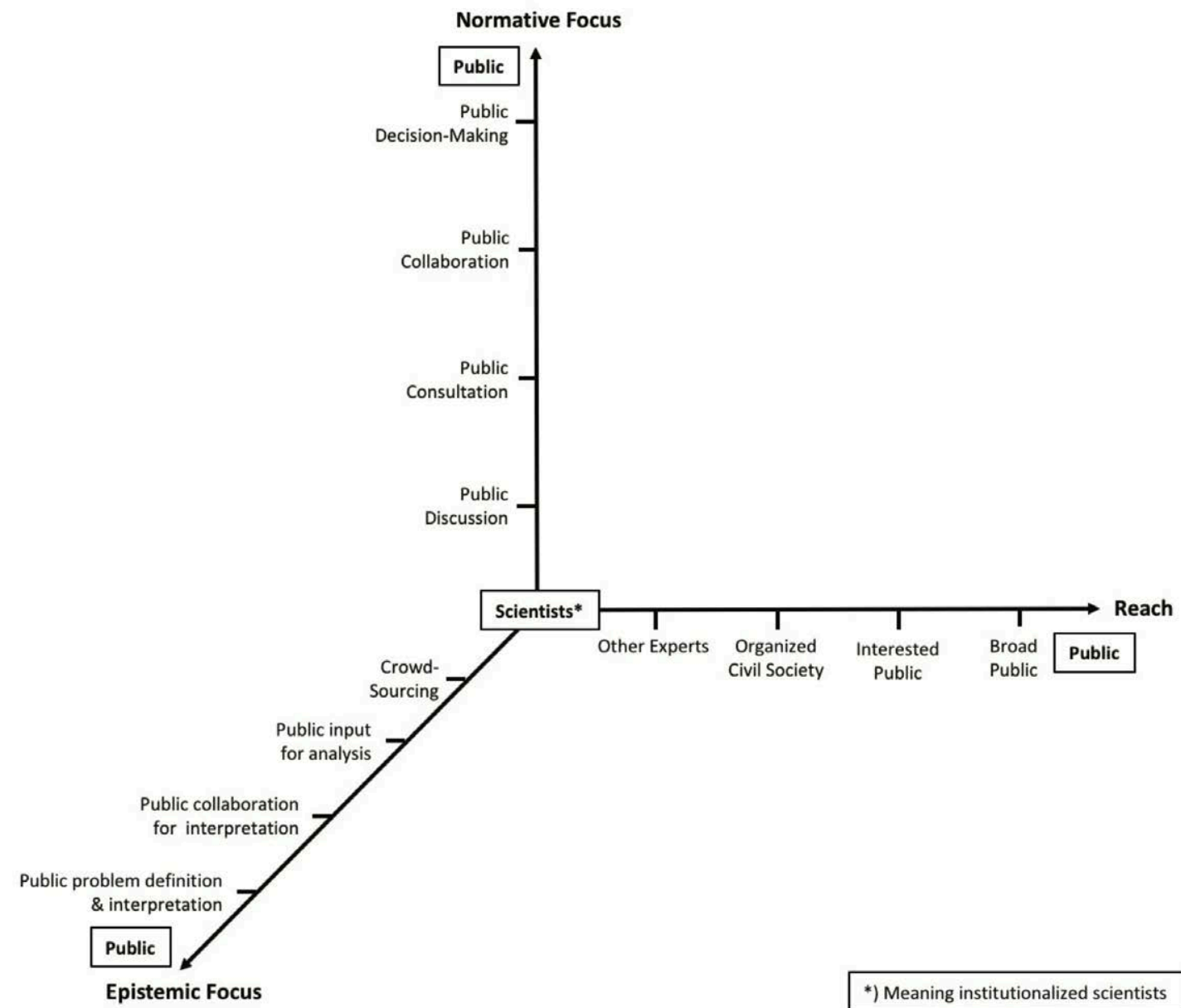


Figure 2: The participatory science cube.

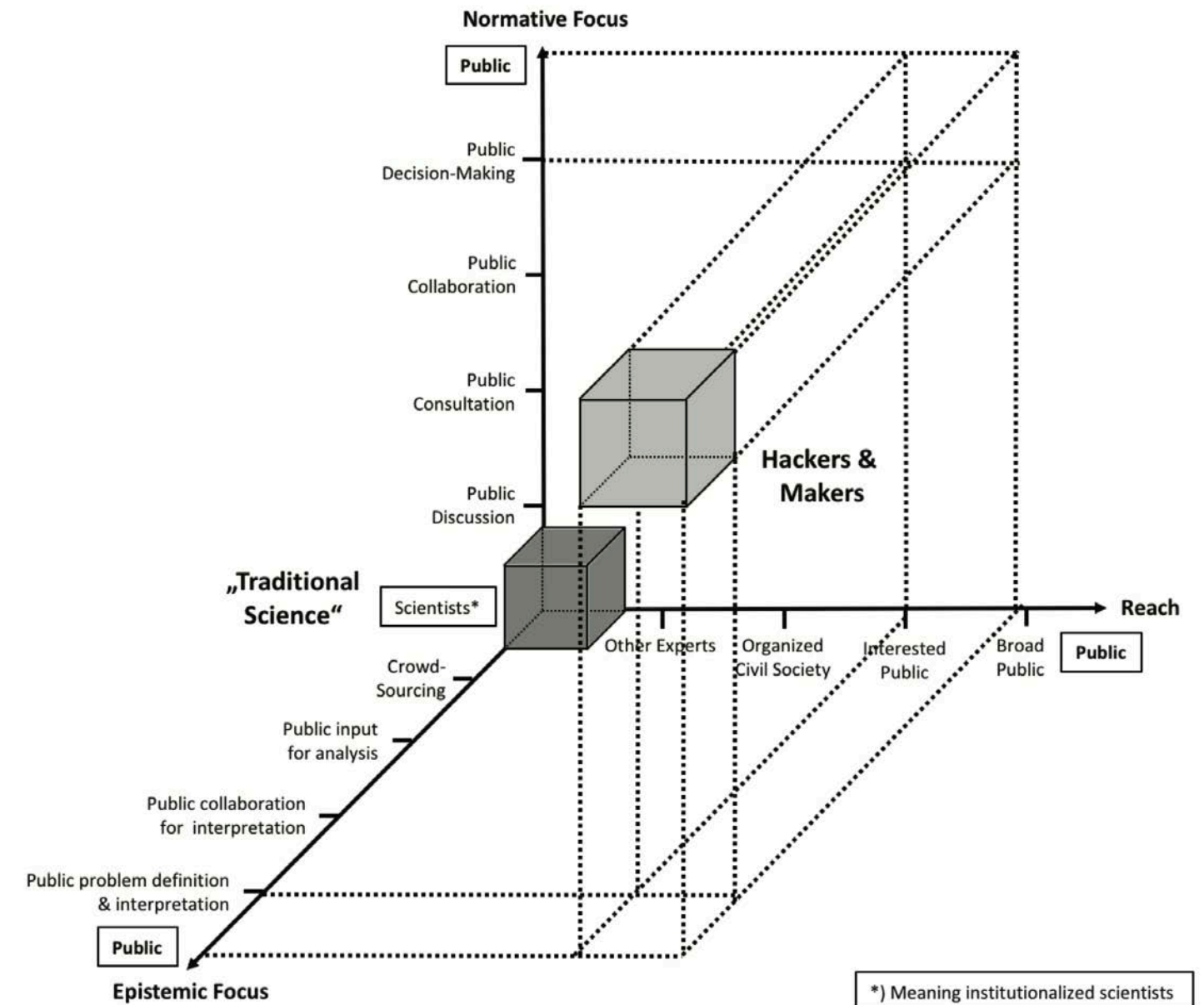


Figure 3: The participatory science cube with two prototypical manifestations of scientific projects on the opposite edges of the cube: traditional, closed, institutionalized science and open hacker or maker projects.

Citizen Science in Lingscape

**DEFENSE
D'ENTRER
AU CHANTIER**

Participatory research

ENTREE INTERDITE
VIVE LA LIBERTÉ
~~A TOUTES PERSONNES~~
NON AUTORISEES

Participatory research

- **Individual perspectives** on the linguistic landscape (**Crowdscapes**)
- **Personal choice of topics** for research
- **Active participation** in the entire research process (platform features, analytical taxonomies, data work)

Lifeworld orientation



Lifeworld orientation

- **Direct integration** of research into everyday practice
- **Interactive research environment** tailored to user needs
- **Collaboration with partners** for app development

Societal engagement

MURS BLANCS
PEUPLE MEET !

Societal engagement

- **Long-term cooperation** with partners worldwide
- **Human interaction** is at the heart of the project
- **Provision** of materials and tools for teaching

Side note: Lingscape in classrooms

Example projects with Lingscape:

- **VisibLL** (University of Vienna)
- **Die Sprach-Checker** (IDS Mannheim)

Approaches:

- Project work on **language in public spaces**
- Use of the app for **data collection and reflection**
- **Materials and teaching ideas** for working with Lingscape

More information here: lecture2go.uni-hamburg.de/l2go/-/get/v/24334





CHRISTOPH PURSCHKE

Sprachliche Vielfalt entdecken mit der Lingscape-App

1 Mobile Apps als Forschungsinstrument

In den letzten Jahren haben mobile Apps verstärkt Eingang in die Sprachwissenschaft, besonders die Dialektforschung gefunden. Mobile Forschungs-Apps werden benutzt, um Sprachaufnahmen zu sammeln, regionale Variation zu dokumentieren oder bestimmte Stimmeregionen zu analysieren (siehe z. B. Leemann u. a. 2016). Der Einsatz dieser Technik – genannt *Crowdsourcing* – ermöglicht es, mit vergleichsweise geringem Aufwand große Datenmengen zu sammeln und damit empirische Forschung auf ein deutlich breiteres Fundament zu stellen, als dies in traditionellen linguistischen Studien möglich wäre. Zwar bestehen bei solchen Erhebungen einige Einschränkungen in Bezug auf die Kontrolle und Qualität der erhobenen Daten; diese werden jedoch in der Regel durch die schiere Menge des gesammelten Materials aufgewogen. Auf diese Weise lässt sich z. B. der regional verschiedene Sprachgebrauch in Deutschland flächendeckend neu kartieren (siehe Leemann u. a. 2017). Eine ähnliche Entwicklung zeigt sich bei der Erforschung sprachlicher Landschaften

(*linguistic landscapes*), also der sprachlichen Vielfalt und semiotischen Komplexität des öffentlichen Raums. An die Stelle der klassischen, eher qualitativ-ethnografischen Analysen treten in den letzten Jahren verstärkt quantitativ ausgerichtete Studien, die sprachliche Landschaften statistisch und mittels technischer Hilfsmittel erfassen und auswerten. Neben computati-

onellen Verfahren der Datenanalyse gehören hierzu auch Crowdsourcing-Apps, mit denen Daten unter Beteiligung der Öffentlichkeit gesammelt, analysiert und präsentiert werden können. In diesen Zusammenhang gehört auch das Projekt *Lingscape*, in dessen Zentrum eine mobile Forschungs-App steht. Ziel des Projekts ist es, gemeinsam mit interessierten Teilnehmerinnen und Teilnehmern Erkenntnisse über die sprachliche (und kulturelle) Vielfalt moderner Gesellschaften am Beispiel öffentlicher Beschilderung zu sammeln. Für die Linguistic Landscapes-Forschung ermöglicht Crowdsourcing eine vielschichtige Sicht auf sprachliche Landschaften, weil Daten nicht allein aus der Sicht der Forschenden gesammelt und analysiert werden, sondern sich die vielen persönlichen Perspektiven der Teilnehmer:innen zu einem umfassenden Bild ergänzen. Zudem eröffnet diese Art der Datensammlung ganz neue Fragestellungen, etwa hinsichtlich der Dokumentation aktueller Trends und Ereignisse in der öffentlichen Beschilderung (z. B. Wahlplakate), individueller Orientierungsstrategien im öffentlichen Raum oder der Frage, wie Teilnehmer:innen mit partizipativen Forschungs-Apps interagieren (Purschke 2017a, 261–263).

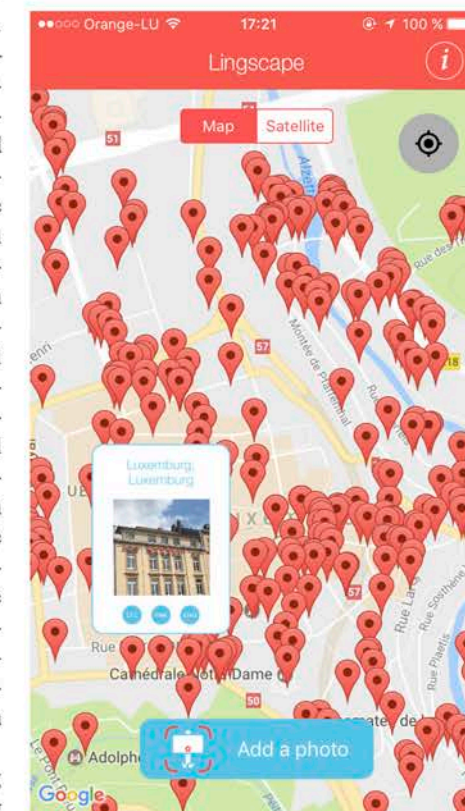


Abb. 1: Übersichtskarte

Open research practice

Protégé par

Open research practice

- **Free availability** of data, tools, and results
- **Transparent processes** and project development
- **Science communication** promotes understanding

Motivation management in Lingscape



Structural elements of motivation

Assembled from various sources

- **Source** (extrinsic vs. intrinsic)
- **Target** (task completion vs. achievement)
- **Means** (incentive vs. purpose)
- **Goal** (reward vs. learning)
- **Effort** (imposed vs. self-chosen)
- **Persistence** (occasional vs. long-term)
- **Effect** (situational vs. structural)

Methodological considerations

Source-related:

Even if for many projects, the source of motivation is external (e.g. class project), **we aim at creating intrinsic motivation** for the activity in participants

Target-related:

While often projects will work based on assignments to complete, **we hope to create a sense of achievement** through the activity in participants

Methodological considerations

Effort-related:

In many projects, participation intensity is imposed by structural factors (e.g. class assignment). **We hope to create room for self-driven exploration** of the activity in participants

Goal-related:

While often projects will implement a reward system for activities, **we try to focus on the learning outcomes** of the activity in participants

Methodological considerations

Means-related:

Even if incentive-based models (e.g. gamification) may increase participation rates, **we prefer a purpose orientation** for the activity in participants

Persistence-related:

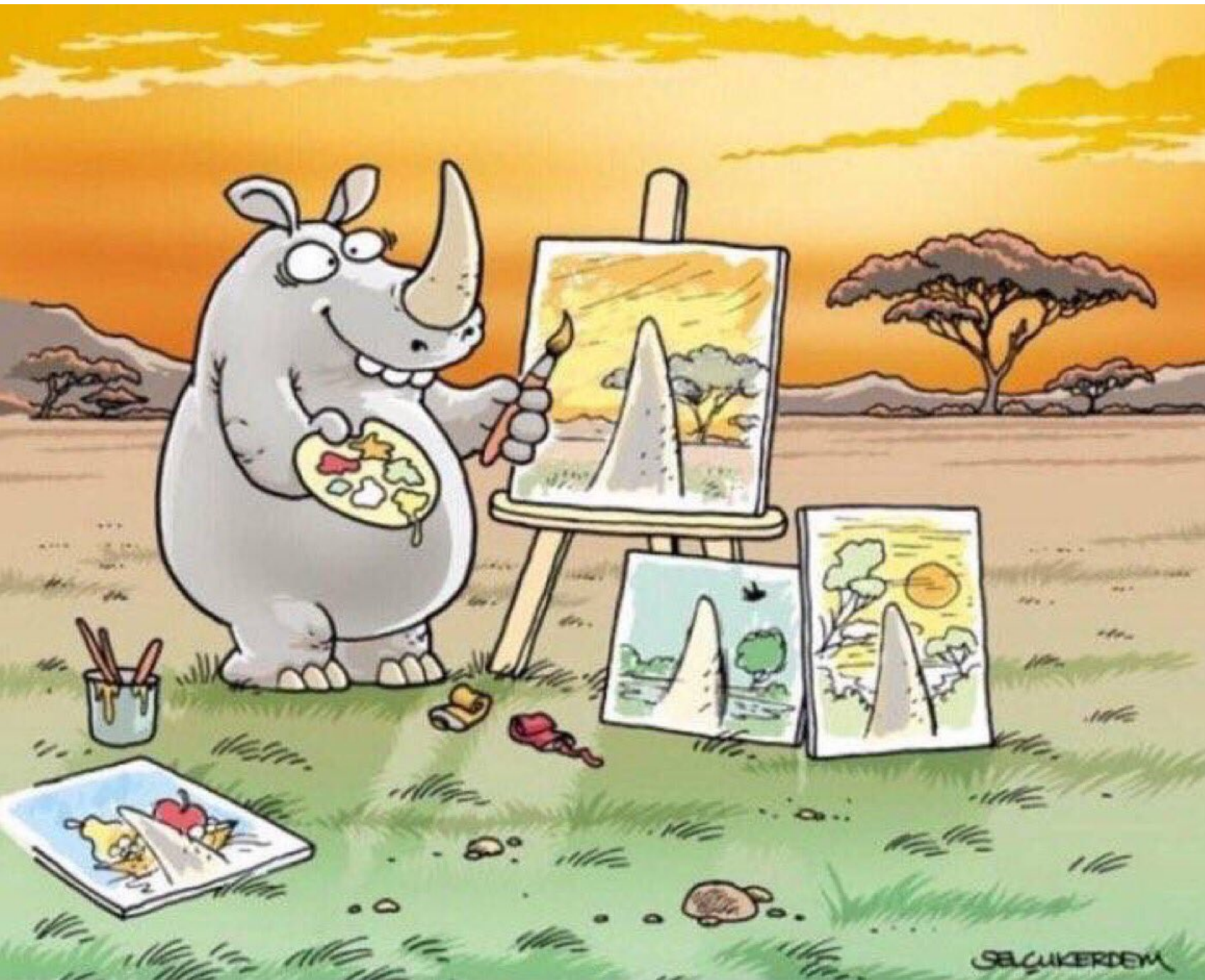
While often projects will rely on short-term participation, **we strive for a long-term engagement** with the activity in participants

Methodological considerations

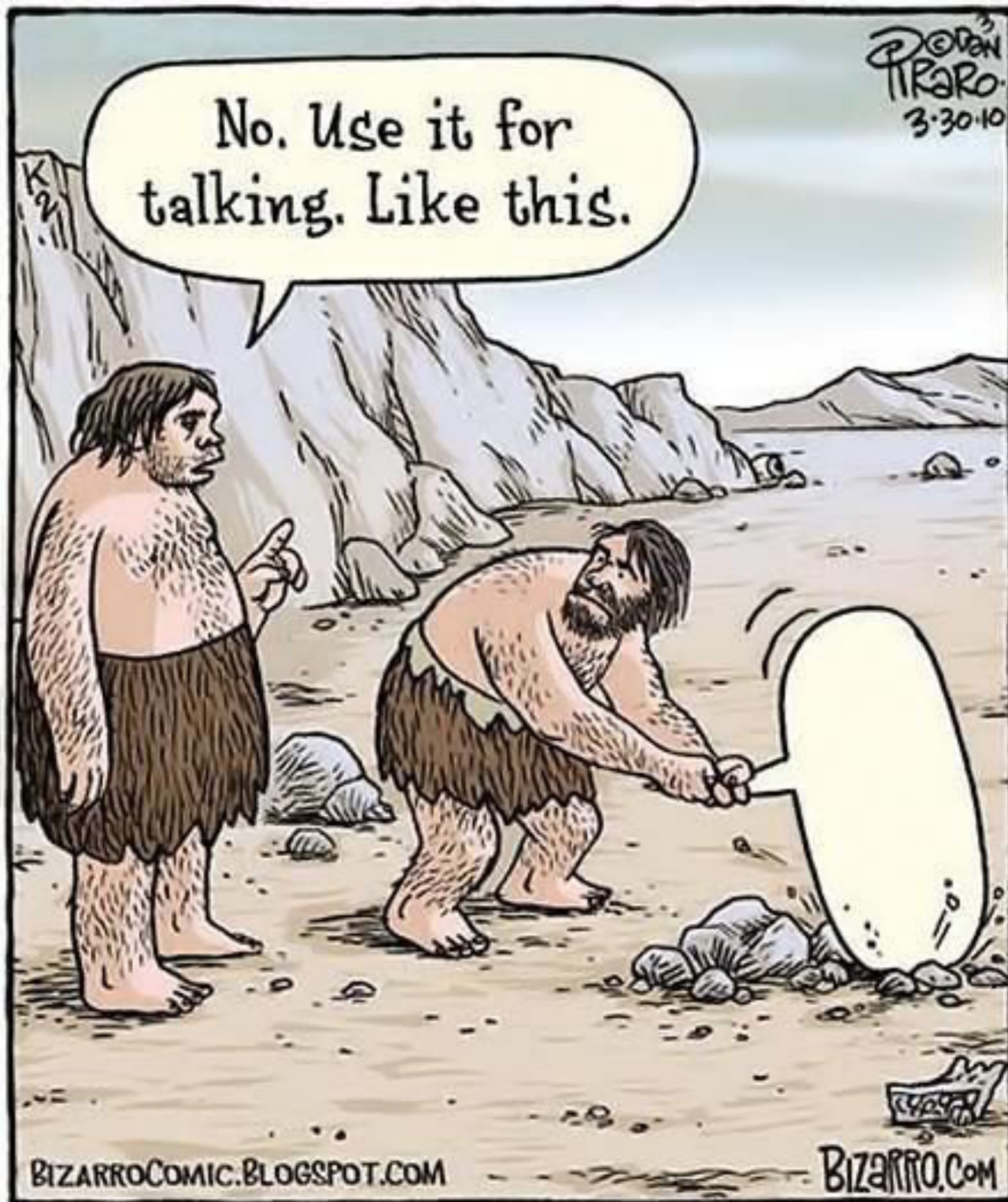
Effect-related:

While often projects focus on situational outcomes (e.g. data collection), **our main interest lies in structural effects** of the activity in participants

And what are these effects?



The main aim of the Lingscape project is to assist participants in discovering, understanding and shaping in a sustainable way the **socio-semiotic complexity of linguistic landscapes** as a source of **practical orientation, purposeful action and social impact**.



And what are these effects?

We use the term **social gaze control** to describe this form of **assisted but self-determined learning and research** in participatory research.



- Bonney R, Ballard H, Jordan R et al. (2009). Public Participation in Scientific Research: Defining the Field and Assessing Its Potential for Informal Science Education. A CAISE Inquiry Group Report, July 2009.
- Haklay M (2013). Citizen science and volunteered geographic information: Overview and typology of participation. In: Sui D, Elwood S and Goodchild M (eds) Crowdsourcing geographic knowledge. Dordrecht: Springer Netherlands, pp. 105-122.
- Schrögel, P & Kolleck A (2019). The Many Faces of Participation in Science: Literature Review and Proposal for a Three-Dimensional Framework. Science & Technology Studies 2019/2, 77–99.
- Senabre Hidalgo, E., Perelló, J., Becker, F., Bonhoure, I., Legris, M., Cigarini, A. (2021). Participation and Co-creation in Citizen Science. In: Vohland, K., et al. The Science of Citizen Science. Springer, Cham, 199-218.

Notes

- Difference to other image-centered platforms (like WhatsApp or Instagram): natural/intrinsic purposes like organizing communication or self-presentation and curation of a public persona (social capital aspect)
- Citizen science: crappy data but happy data