- **Attribution and Credit**
  - **Types of Data: Crowdsourced** (e.g., mobile apps, sensor data, fitness trackers, direct-to-consumer testing, social media, crowdsourcing platform, environmental data)
  - **Stakeholders:**
    - Digital Volunteers (e.g., Eyes on Alz/Stallcatchers, EyeWire)
    - Patient as active Citizen Scientist (e.g., Patients Like Me, American Gut Project)
    - Consumer-driven Data Commons
  - **Incentivization:** Cox, Young, Simmons, et al (2018); Crowston & Fagnot (2018); Phillips et al (2018)
    - Strongest positive associations were people's internal motivations to understand, learn, and support science.
    - Strongest negative associations were career-based and social.
    - Citizen scientists' motivations change as they progress through different stages of volunteering: (1) initial; (2) sustained; and (3) meta.

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- **Ownership, Stewardship, Access, and Licensing:**
  - Cox et al (2018): Evans (2016); Ganzevoort et al (2017); NCVHS (2017); Riesch & Potter (2014); Scassa & Chung (2015); SciStarter (2019); Wiggins & Willbanks (2019)
  - Many volunteers consider their data to be public goods, but this does not mean they support unconditional data sharing → **Linked to goals of the user! Concerned about possible misuse.**
  - Citizen scientists care whether they or "the volunteers" receive credit in some form for their contributions to the data sets.
  - Volunteer contributors in some projects feel that it is only fair that *all* volunteers should receive credit, not only those who happened to make the discovery.
  - → Zooniverse Platform: All volunteers are listed on the Team page, to which the author list of each paper is linked.
  - → SciStater Platform: Participation API allows volunteers to track their contributions

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