COARCT:
Crowdsourced, Open, Anonymous RCTs

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Randomized C. Trials

RCTs = Randomized Controlled/Clinical Trials

The "Gold Standard" to measure the effectiveness of a treatment (e.g. to get FDA approval for a new drug).

Large, Growing Market (FMI, 2023):

- Clinical Trials valued at $115.4 bn, expected to grow to $177.7 bn in 10 years.
- Market Shares: 54.7% by sponsors, 46.5% in US (US, non-sponsored=33.8 bn).

Beyond Clinical Trials:

- Market Research: do my discounts attract foot traffic?
- A/B Testing: does my feature improve user experience?
- Public Policy: do *lentils* incentivize immunization?

A list of *Problems* in *Randomized Trials*

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Recruiting: expensive to recruit large samples → low statistical power

Diversity: hard to enroll diverse subjects → low external validity

Retention: subjects attrit from the trial → (differential) attrition bias

Tangible Expenses: physical capital, facilities, staff → operating costs

Privacy: holding sensitive information is a liability → compliance costs

Storage: data/files for replication ad-infinitum → (cold) storage costs

P-hacking: strategic misrepresentation of results → low transparency

Introducing

COARCT

Crowdsourced, Open, Annonymous RCTs

(RaaS = Research as a Service)

RaaS: Think Amazon's mTurk, but Private!

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Example Use Case: Mental Health in Ecuador