



# Patterns for new incentive mechanism design and adoption

Common failure points and practical examples.

? QUE What are the patterns for designing a new incentive mechanism system, from inception to adoption by academia?

? QUE How do we know if a new incentive mechanism or tool is ready for academia?

? QUE What drives the acceptance and onboarding of scientists?

## Goal for the 2nd day

*so priority is on achieving some escape velocity rather than "completing" a project or "closing" a topic/theme. We will consider it a success if each working group ends the workshop with 1) initial progress and momentum on the project's goals or a distillation of discussion themes, and/or 2) concrete, energized plans for next steps (e.g., "let's keep working on X and [submit it to Y, etc.]")*

ToDo:

1. Decide what outcome we want to achieve
2. Port all info to wiki
  - a. Copy links from past experiences
3. Prep presentation for larger group



Wiki of incentive mechanisms:

- Create an "incentive mechanism card", a structure on the wiki:

N.B.: old Notes ported to: [https://synthesis-infrastructures.wiki/Social\\_Systems](https://synthesis-infrastructures.wiki/Social_Systems)

- imagine we have a wiki of all incentives ever designed, what would be the “mandatory” sections?
- Convert one of the examples in the chat to that structure

## 💡 Pattern

## Opposing Opinions

*what are the points of tension, differences in values/experiences/etc. that cause them, ..., did we identify on the discussions of this working group?*

## CLM: Patterns

Patterns come from our reflective observations about our hands-on interactions to solve problems in the world. One simple definition is that a pattern is a repeatably applicable solution to a problem that arises in a specific context. What's the pattern form?

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## CLM: Model Cards for new incentive mechanisms

Serve to disclose information about a new mechanism design. What would be the sections of a model card for a new incentive mechanism? Who proposed it, assumptions made, type of incentivized behavior, risks and perverse behavior, evaluation, theoretical support...

Incentive mechanism

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	Example 1	Example 2	Notes:
<b>Mechanism structure and details</b>	Publicize contribution (tiers & digital tokens)	Change our mind bounty	
Who built the incentive mechanism	Rescognito (Richard Wynne)	LabDAO	
What is the goal or outcome?	contribute info to a knowledge/discourse graph/evidence map	Arrive at the optimal research proposal	
What is the desired behavior	encourage users to contribute in more granular and broader ways than writing papers	Source counter-points to proposed research project	
What is the structure of the mechanism?	Users can contribute to some system and get other users to acknowledge that within the recognition.com platform, linking that open ledger of contributions (visualized) to their official ORCID records. Thus, many different forms of scholarly contributions can be recognized and added to a growing list of possibilities.	A proposal is submitted in a format where an alternative approach can be submitted to each claim in the proposal. If an alternative approach is taken the proposer is rewarded with a stake in the research project. The alternative approach suggestions would likely carry more weight when backed by synthesized evidence.	
Do we need a license or agreement? What are legal	<a href="#">Rescognito</a> : no Sourcered: no	likely	If sharing data with others participants usually want

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considerations?			guarantee if reputation gain, publication or money, they have a stake. If give prize want agreement not just most impactful, but also positive impact.
Type of mechanism (Is it retroactive, prospective...?)	Social, prospective and retrospective ?	Retroactive	
Does it reward in money, reputation, hybrid?	(1) reputation tiers (2) visibility/publicity	1) Reputation 2) Stage in project	Use <a href="https://rescognito.com/">https://rescognito.com/</a> (like PubPeer for any kind of contribution)
<b>Intended Use</b>			
What is the scope?	very broad, can be used for many types of contributions	Per research proposal	Ex. if rewarding contributions, is awarding all contributors or is it award
What is expected incentivised behavior (positive and negative)?	Positive (needs more detail on the behavior we want to promote)	positive	
What is the linked data?	Name and ID in ORCID linked to open ledger of scholarly contributions in Rescognito (no free possible yet?)	Claimed alternative method and supporting evidence	
Who are the stakeholders? Who are players in mechanism?	open-minded scholars at any stage of education + career	open-minded scholars at any stage of education + career	

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Is it decentralized?	not for rescognito.com	Can be decided on a per project basis.	
Technical requirements (from pen and paper through to testnet) Documentation, Set of Infrastructure, Software		Mechanism to capture who contributed what claims and distribute credit when agreed	
Feedback from users	Let's demo it on a group of students/post-docs and see how that affects contributions		
<b>Design</b>			
Test settings		Decentralized contribution graph using the Discourse Graph information model	
<b>Quantitative Analysis</b>			
What was the model for testing the incentive mechanism?			
Results			
<b>Risks and Mitigations</b>			
Anticipated risks (how can people	People may spend too much time on	Trusting that contributions when	

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game the system?)	just the visible rewards	taken onboard are acknowledged (likely mitigated by starting within a trust network and building track record)	
<b>Links and resources</b>			
Documentation	<a href="https://rescognito.com">rescognito.com</a> <a href="https://sourcecred.io/docs/">sourcecred.io/docs/</a>	Coming soon...	
Public presentations, media or posts	<a href="#">YouTube: Rescognito</a> <a href="#">YouTube: Sourcecred</a>	Coming soon...	

Examples:

<https://innovationsinfundraising.org/doku.php?id=tables:tools>

## Bibliography or references

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# Goal for the workshop

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“**Resources**, such as a system map/synthesis of the problem space, synthesis/directory of tools, essential reading list, case study library, or shared synthesis benchmark dataset”

- **The best tools in the world mean nothing if no one adopts them.** Let's merge together small scale testing, with rigorous validation.
- Create a resource that the tool builders across the group can glance at to not lose sight of the critical point of adoption. With practical examples of how these mechanisms are designed, iterated upon, and how they can be tested and communicated to academia.
  - Learnings from past and ongoing attempts (what truly motivates sustainable participation).
  - *"A tool builder should check their assumptions against this checklist before ..."*
  - validate assumptions for the system that should work on a bigger scale / models to test the incentives
  - Example:
    - Reputation & interactions in online space: how can we build better tools to help users navigate these spaces without being afraid of their reputation

## Identified Open Problems

1. Acceptance and onboarding of scientists, even if we have a model that works in a small setting
2. Value attribution:
  - How do you distribute rewards?
  - Opportunity side: new tools looking at ways to provide input to that distribution mechanism
  - How do we connect the two sides?
3. How do we test the behavior of a model as it scales?
  - How do we predict the inventive structures or perverse behavior that will arise as it's adopted for a large number of players?
4. Incentive mechanisms for contributing and maintaining a collective knowledge graph

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