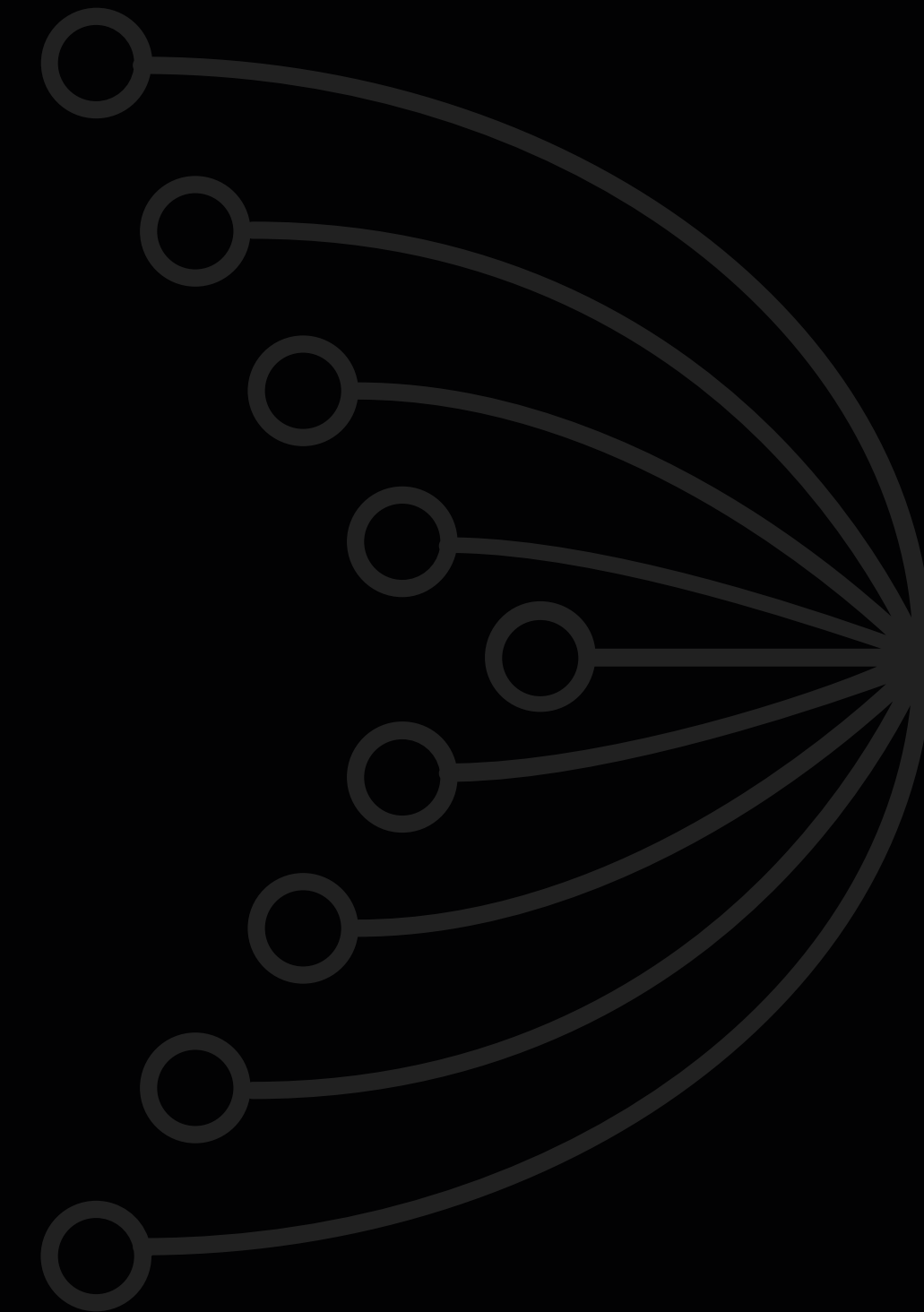
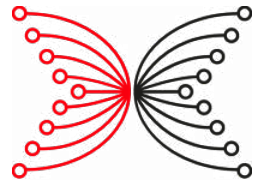


Marlowe UX foundational research study plan





Project background

We're trying to create an app or suite of apps which will enable Cardano pioneers to execute and run financial smart contracts on the Cardano blockchain with the people around them. On top of this, we need to improve the Marlowe Playground, a tool which aims to help developers write Marlowe smart contracts quickly and easily at all experience levels.

We need to understand what Cardano pioneers need from financial smart contracts and decide on a set of contracts and tools to be able to make them discoverable and executable on the front end.

We also need to find out how developers want to interact with Marlowe and if there are any other tools out there which resemble solutions to their problems.

The screenshot shows the Marlowe Playground website. At the top, there's a navigation bar with the Marlowe logo, the text "MARLOWE PLAYGROUND", and links for "Tutorials" and "Actus". Below the navigation bar, there are three columns of text explaining Marlowe and the playground. At the bottom, there are three options for starting a project, each with a flowchart showing the process from the starting language/tool to the Marlowe/Blockly interface and finally to the Simulator.

Option 1
start with Haskell

Haskell
↓
Marlowe ↔ Blockly
↓
Simulator

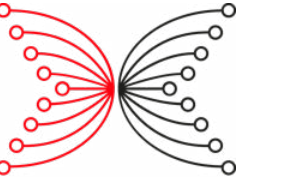
Option 2
start with JavaScript

JavaScript
↓
Marlowe ↔ Blockly
↓
Simulator

Option 3
start with Marlowe or Blockly

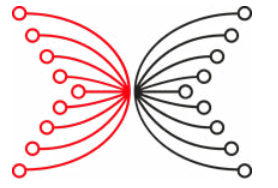
Marlowe ↔ Blockly
↓
Simulator

Ready to go?
Start a new project



Research goals

1. Determine the user groups which fall under developers and Cardano pioneers
2. Discover the types of smart contracts Cardano pioneers want to use and developers want to build
3. Understand what developers want to be able to do with the smart contracts they build
4. Gather insight from experts on how the way financial agreements are made in the FIAT world could influence our decisions



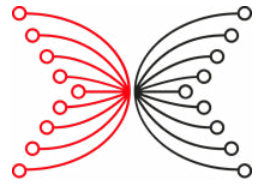
Research questions

Developer Playground

1. How do developers want to build smart contracts?
2. What frustrates developers about the current Marlowe Playground?
3. Are there any tools out there already which do anything similar?
4. What does the future look like for the playground?

End-user app

1. What are the simplest smart contracts Cardano pioneers want to interact with for MVP?
2. What frustrates Cardano pioneers in their lives inside and outside of the Cardano ecosystem?
3. Are there any tools out there already which do anything similar?
4. What does the future look like for Marlowe?



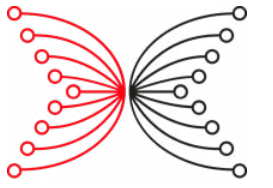
KPIs

Developer Playground:

1. Time it takes to load and compile a smart contract template
2. Number of errors in compiled smart contracts
3. System usability scale results

End-user app:

1. Number of contracts completed
2. Number of contracts ran
3. Clickthrough rate from marketing website



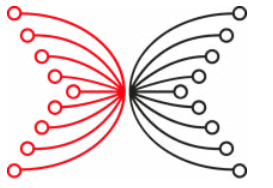
Methodology

Primary research

1. Remote user interviews with empathy map canvas
2. Usability testing
3. Surveys/polls

Secondary research

1. Articles
2. Surveys/polls



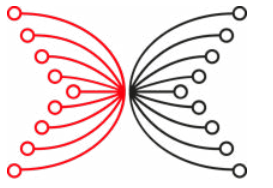
Study participant characteristics

Developers

1. Proxy users - Developers who've built the playground who work at IOHK
2. Developers who are interested in building Marlowe smart contracts with various skill levels
3. Financial experts who want to build smart contracts, but aren't programmers

Cardano pioneers - End users

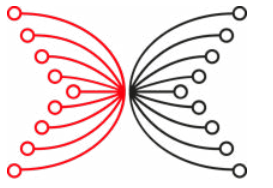
1. Proxy users - People who work at IOHK who are familiar with the Cardano ecosystem and understand what Marlowe is
2. Anyone in the Cardano community who already understand what Marlowe is



Cardano pioneers - Empathy discussion guide

Those who understand what Marlowe is

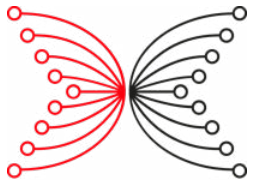
1. As a member of the Cardano community, what do you understand about Marlowe?
2. What would you love to see Marlowe do in the future?
3. What problems do you have which Marlowe could solve?
4. How might using a Marlowe smart contract differ from a traditional financial agreements?
5. Why would you pay for something like this, and what would you think you'd be paying for?



Developers - Empathy discussion guide

Qualitative questions

1. Please describe how confident you are when developing smart contracts
2. With that in mind, how would you prefer to build smart contracts
3. What frustrates you most about using the Marlowe Playground?
4. If we started from scratch, how might the playground navigation look or feel, what features would it have?
5. What does the future look like for the Playground?
6. How might monetisation look for Marlowe?



Developers - Usability discussion guide

Getting started

- Welcome
- Get consent to record
- Basic info: Name, age, gender, occupation
- Remind participant they're not being tested
- How confident are you in building smart contracts?
- How would you prefer to build smart contracts?
- Any questions before we start?

Usability tasks

1. Locate and compile an escrow with collateral written in Marlowe from a template
2. Starting over, build a simple escrow from scratch in your preferred method
3. Run the escrow in the simulator

Conclusions

- TBC