Communication Technology Selection in a Young Open Source Community:
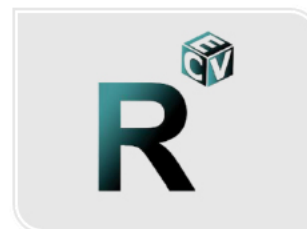
A Case of the Hyperledger Project

The Hyperledger Project

- An Industry collaborative project to advance blockchain technology
  - Blockchain – distributed databases that store transaction data in a tamper proof format
- Open source project hosted by the Linux Foundation
- Currently has 100 partner members
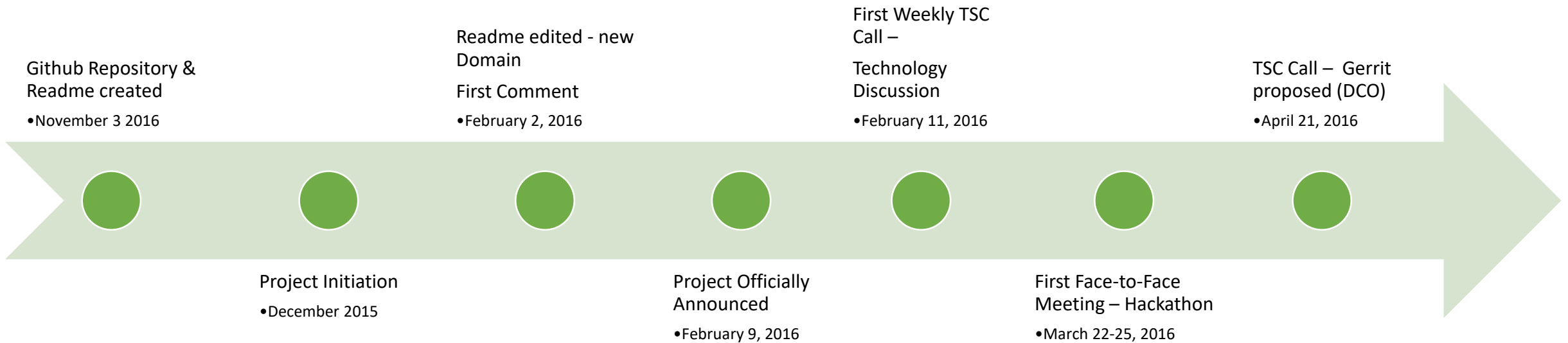- Location: https://www.hyperledger.org/

The Hyperledger Project

PREMIER MEMBERS

Method

- Netnography – a field study approach adapt to learning and understanding online environments (Kozinets 2015)

- Impressionist tales – the creation of representations and the process necessary to illustrate observations (Van Maanen 1988)

- Research Question:

  - How does a newly founded open source community choose communication technologies?

The Evolution of the Hyperledger Project: Initiation

Github Repository &
Readme created
- November 3 2016

Readme edited - new
Domain
First Comment
- February 2, 2016

First Weekly TSC
Call –
Technology
Discussion
- February 11, 2016

TSC Call – Gerrit
proposed (DCO)
- April 21, 2016

Project Initiation
- December 2015

Project Officially
Announced
- February 9, 2016

First Face-to-Face
Meeting – Hackathon
- March 22-25, 2016

The Evolution of the Hyperledger Project: Stack Overflow

Slack - Question and answer platform proposed ("like Stack Overflow")

•April 21, 2016
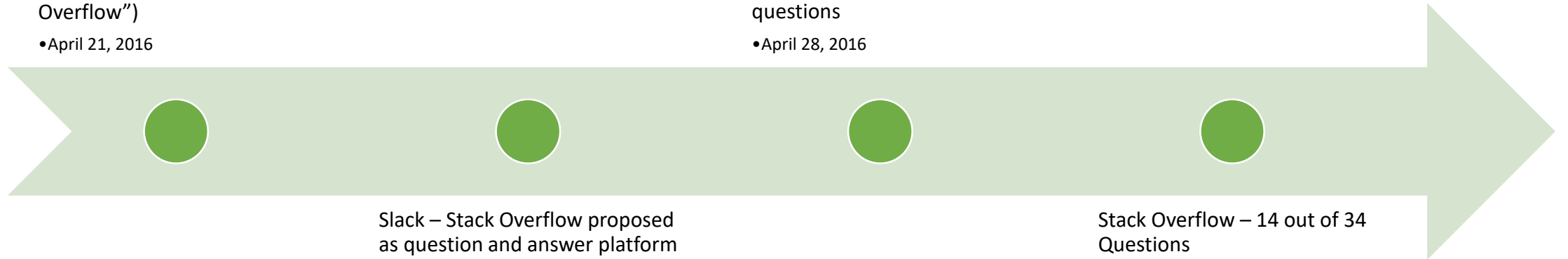
Stack Overflow – 7 out of 18 questions

•April 28, 2016

Slack – Stack Overflow proposed as question and answer platform

•April 25, 2016

Stack Overflow – 14 out of 34 Questions

•May 4, 2016

Discussion: Which theory?

Theory	Contribution: Research	Contribution: Practice
Diffusion of Innovations (Rogers 2003)	Adoption-decision occurs at three levels (top-down, bottom-up and in the middle) Motivation for adopting different technologies: short-term and long-term considerations, depending on level	Open source communities may understand the need to stay flexible, especially in the early days and may be sensitive to forces that will require changes to communication channels. While this is often intuitive, some people resist change and can learn from this cases.
Complex Adaptive Systems (Agnihotri et al 2012; Muffatto and Faldani 2003; Anderson 1999)	Introduce distributed decision making for joint-decisions: Adoption-decision occurs at three levels, not just the member level	
Recursive Public (Kelty 2008)	Innovation in social processes through the adjustments in a recursive public	

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