

PRIVACY-PRESERVING CONSENSUS PROTOCOL BASED ON SOCIAL CAPITAL

Bc. Juraj Mariani
supervisor: doc. Ing. Ivan Homoliak Ph.D.



What is Social Capital and why do we use it?

Definition:

- Human capital + attention economy + social influence metrics
- scarce resource, replacing hardware (PoW) or stake (PoS)
- consensus power mechanism,
- SC is easier to amass than \$ or HW

System Overview:

- social capital
- content creators = validators & block proposers
- influence = consensus power

Types of Social Capital:

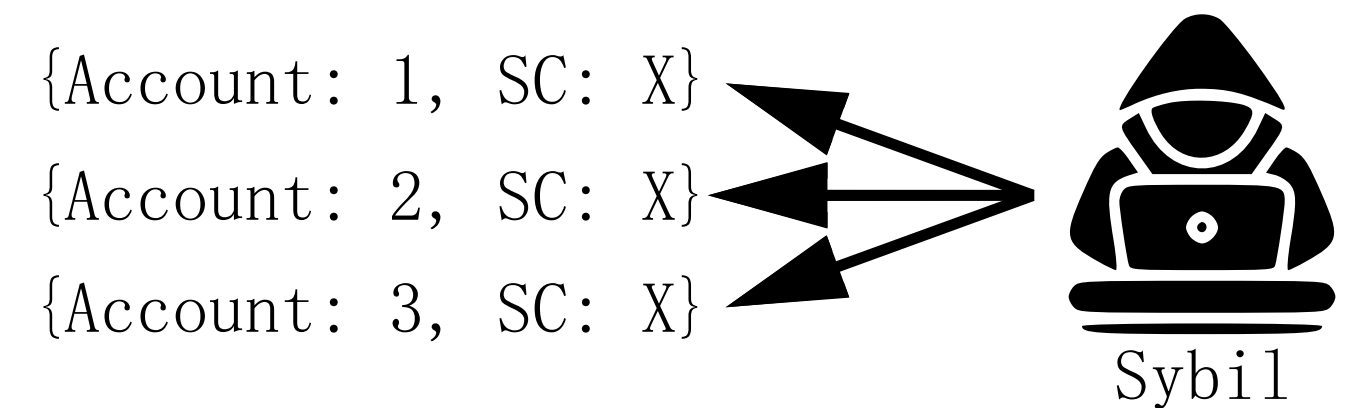
- Passive - Unallocated SC
- Active - Allocated and automatically staked SC
 - Effective - Active SC & scaled to balance influence
- Limited - Each user has a fixed amount of social capital

Incentive Mechanism

- Encouraging users to endorse
- Creators offer **exclusive**, follower-only content
- Followers who prove engagement (e.g., viewing content) **receive** native token rewards

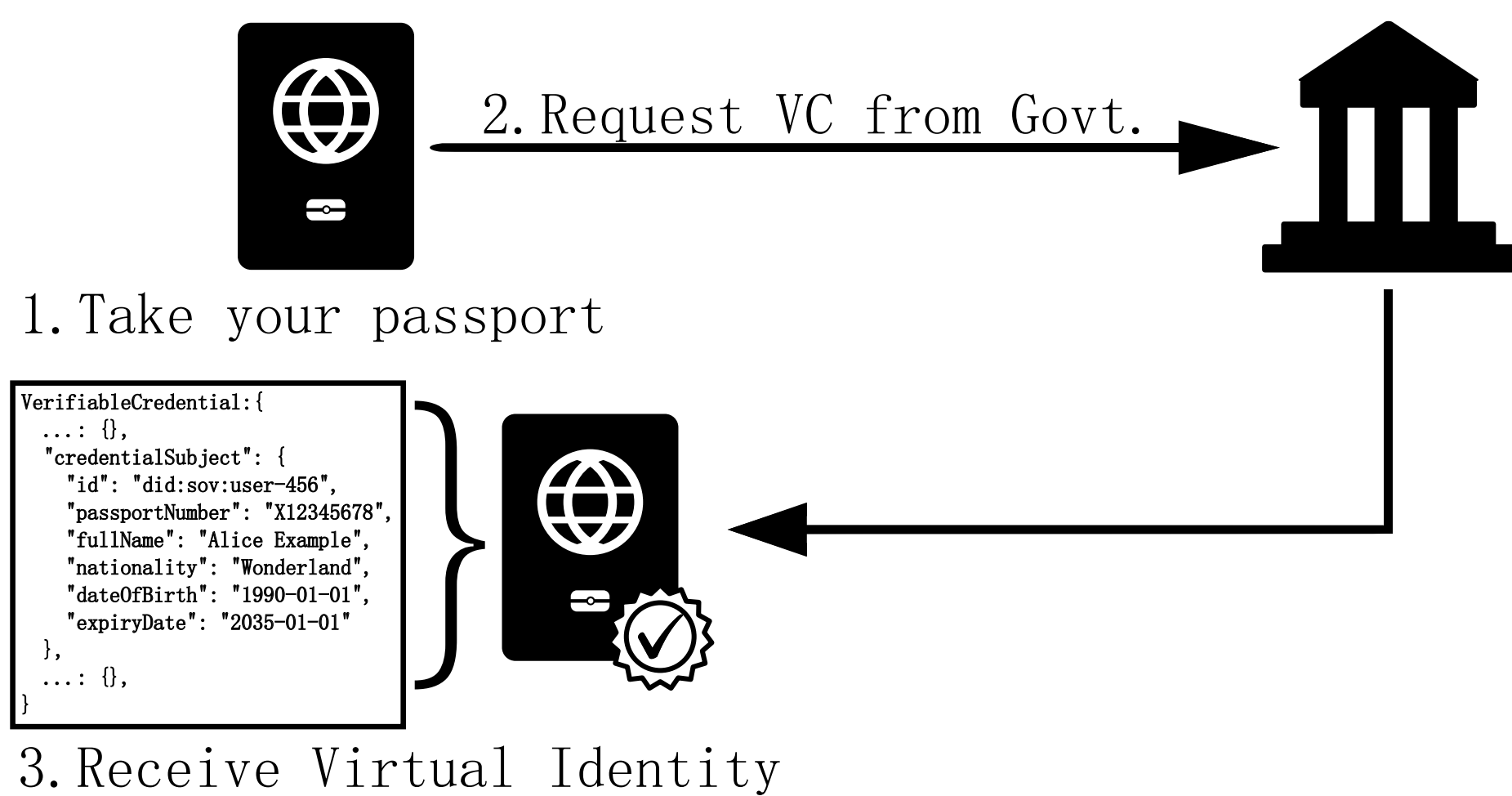
Identity verification

- Sybil entity protection (user with more than one account)
- one-account-per-person policy
- Why? A single user could generate limitless social capital

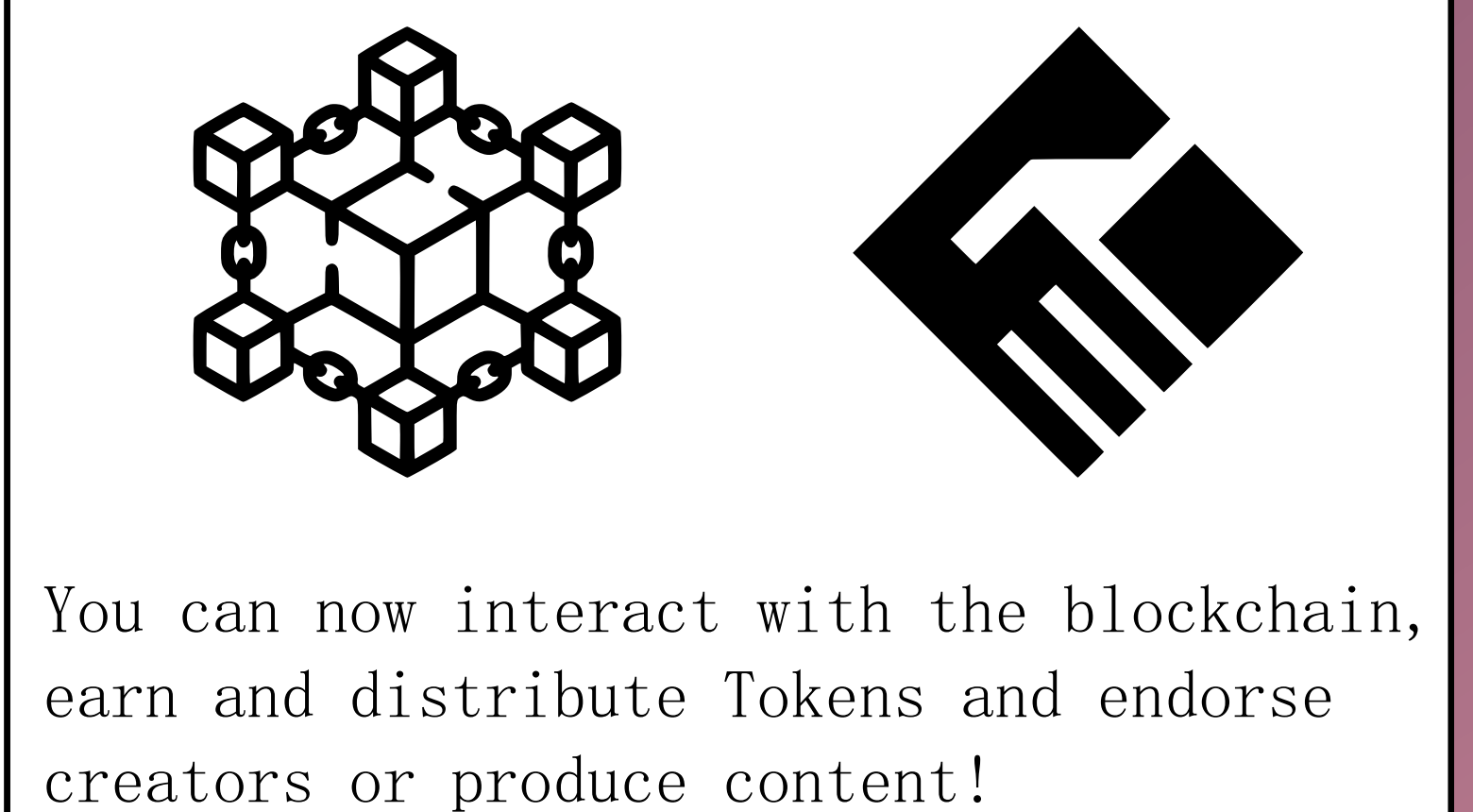


A guide to our social capital blockchain

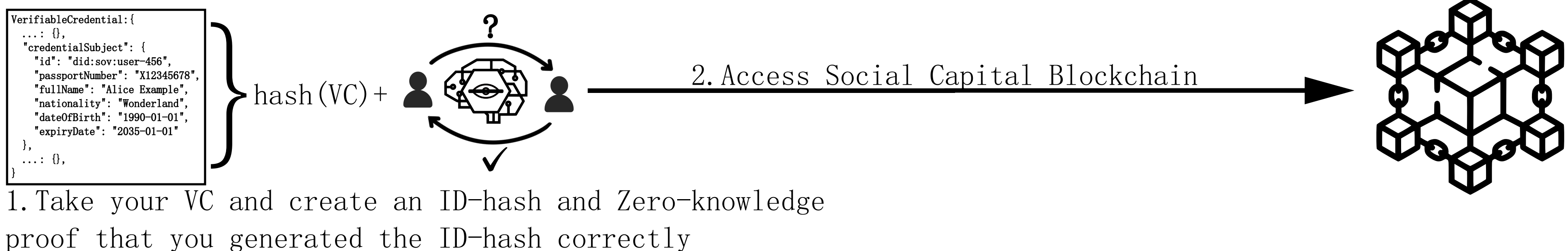
Step 1: Register with your local government



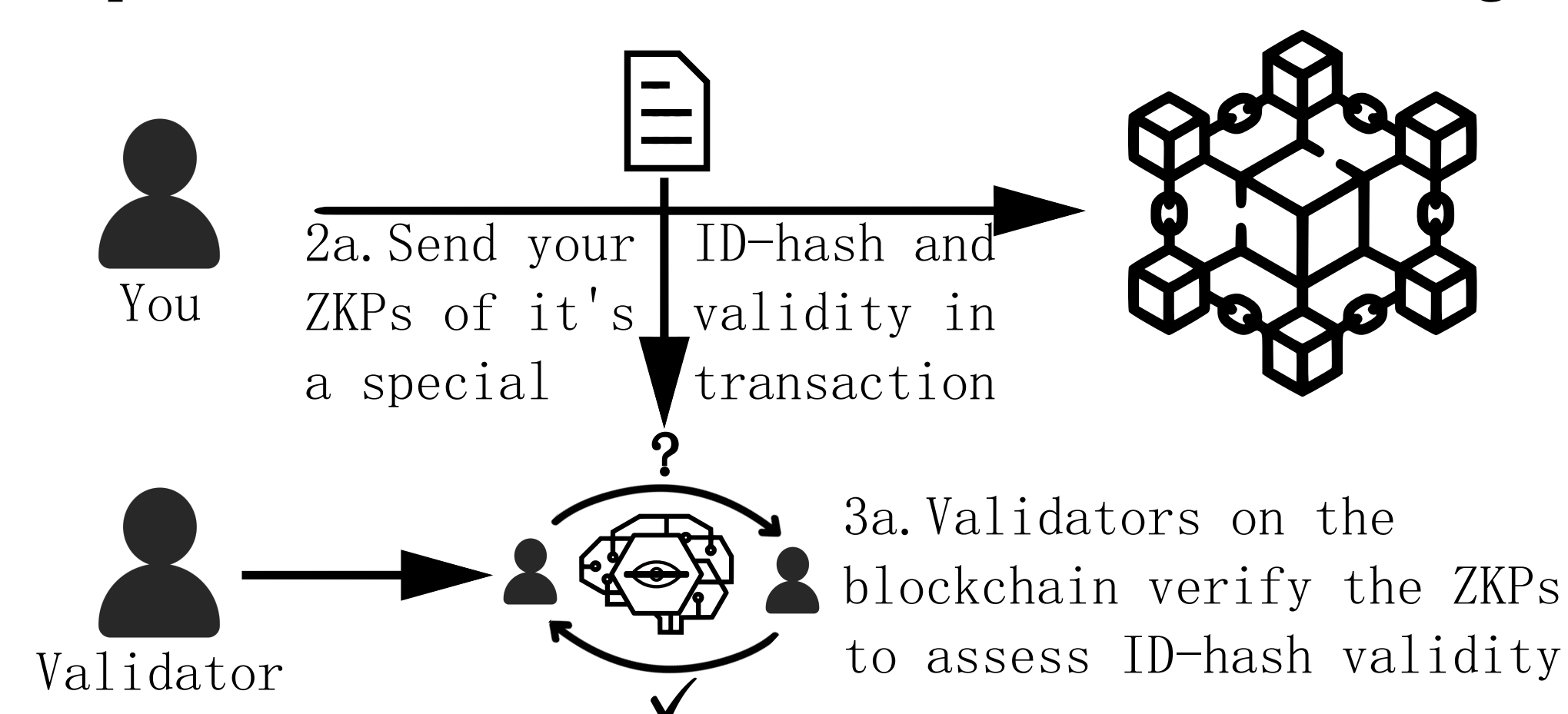
Step 3: Identity verified



Step 2: Verify your on-chain identity



Step 2 Alternative A: ZKP on-chain storage



Step 2 Alternative B: IDP chain ZKP valid.

