

Hina Binte Haq, Ronan McDermott, and Syed Taha Ali

Pakistan's Internet Voting Experiment

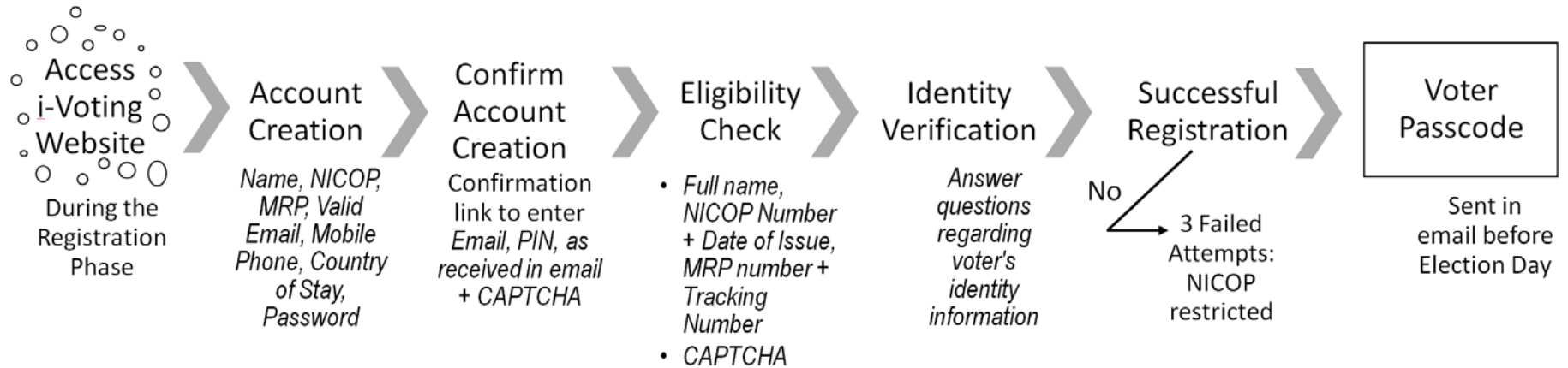
Pakistan and Internet Voting

1. Size/Scale/Scope
2. Time
3. Opacity/Transparency
4. Secrecy/Coercion
5. Going forward

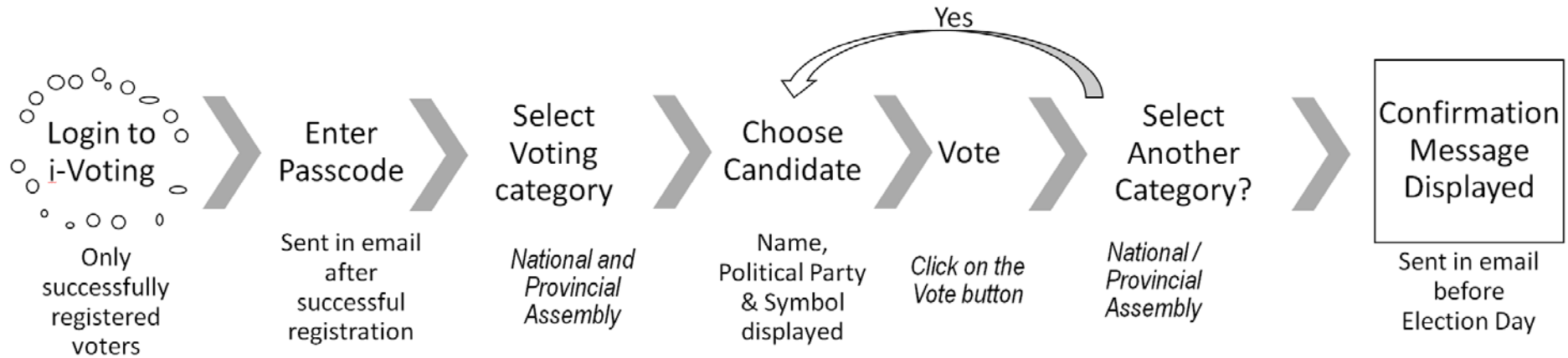
1. Size/Scale/Scope

- 2018 By-elections
- 32 Constituencies
- Total Electorate (9.2m), similar to that of: Romania, Chile, Sri Lanka, Kazakhstan or Malawi, with 630,000 approx eligible for iV
- 2023 General Elections, Pakistan's electorate will approach 110m
- Potential users of Internet Voting similar to electorates of Tunisia, Rwanda, Zimbabwe, Cambodia or Senegal

1. Size/Scale/Scope – Online VR



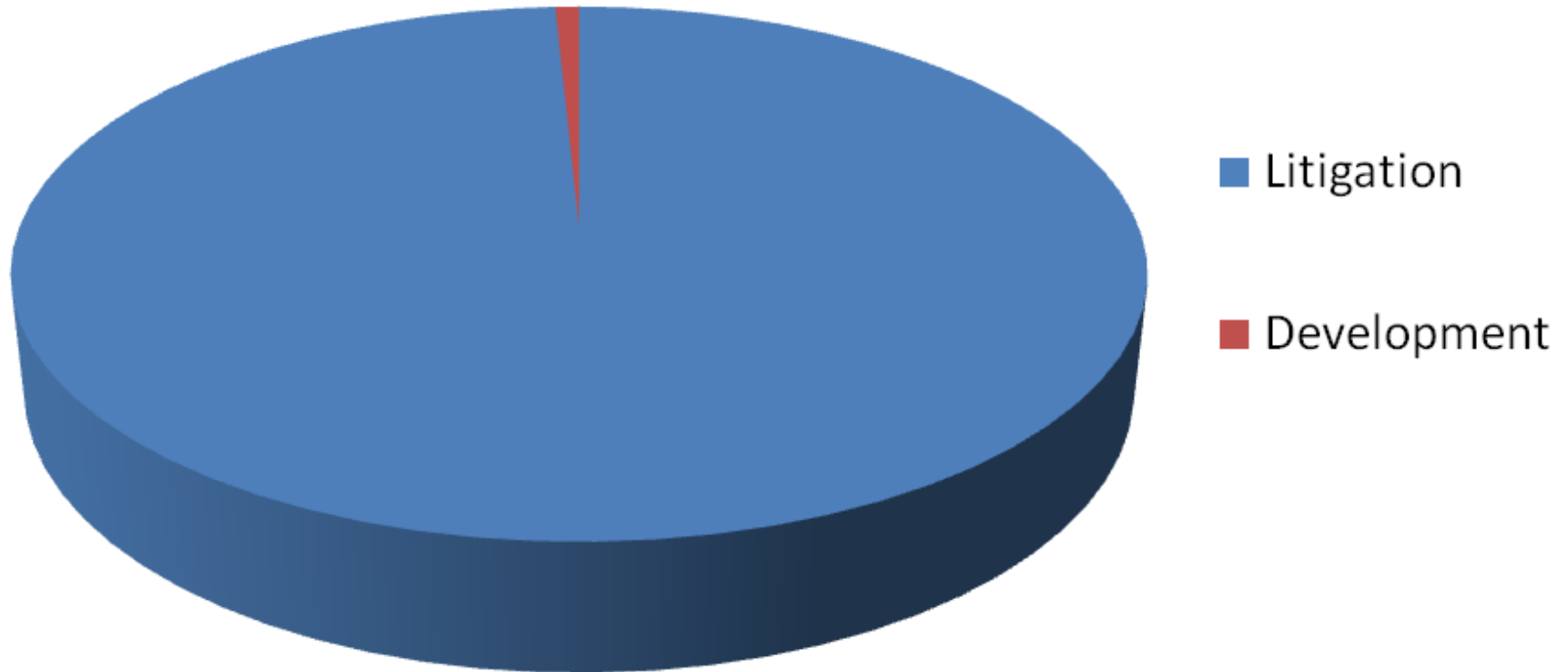
1. Size/Scale/Scope - Voting



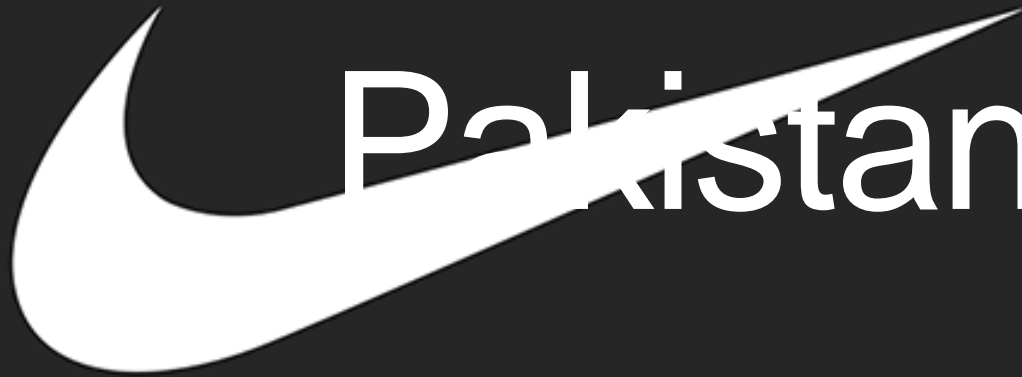
2. Time

- 1993 – first petition to enfranchise OP
- 2011 Dr. Arif Alvi of PTI
- 2012 ECP mock postal/telephone OCV
- 2014 Islamabad High Court, PCER formed
- 2015 Imran Khan of PTI
- 2016 PCER sub-committee on OCV
- 2017 Elections Act passed
- 2018 Supreme Court of Pakistan directs iVoting system to be developed in 10 weeks

2. Time - continued



Supreme
Court of
Pakistan



Just *do* it.

2. Time - continued

- April 2018 – IVTF formed – elections in July
- Key findings:
 - No secrecy
 - Voter can change constituency of their vote
 - Ease of personation (fake email, fake website)
 - DDoS mitigation compromise possible
 - Insecure third party components (inc. CAPTCHA)
- SCoP rules that iVoting only for by-elections
- October 2018 – first deployment of i-Voting

3. Transparency/Opacity

- i-Voting system offers no E2EV and is, by design, not auditable
- IVTF had access, but time-bound
- System not subject to any external scrutiny
- ECP may include or exclude votes cast based on “its opinion”
- No process or criteria to elaborate how this opinion is reached

4. Secrecy/Coercion

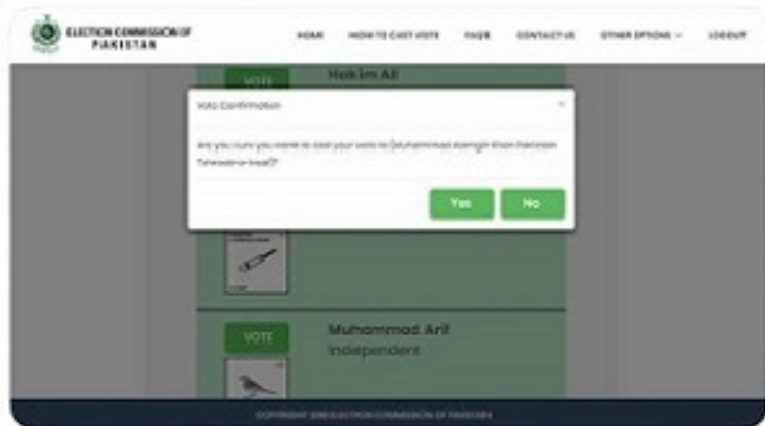
- Constitution and Election Act require ballot secrecy
- i-Voting System does not include any mechanisms to address this.
- Social Media sharing of votes cast
- About half of Pakistan's diaspora are manual labourers
- Aside from computer literacy and access issues, this demographic most vulnerable to coercion

4. Secrecy/Coercion - Twitter



Wajiha Hameed Sheikh
@wajiha_hameed

Am based in UAE and casted my vote online for #NA243 @AKFixit (Alamgir Khan) 🙌🇵🇰 looking forward to a tabdeeli in city Karachi 🙌
#ThankYouECP #ByElectionNA243

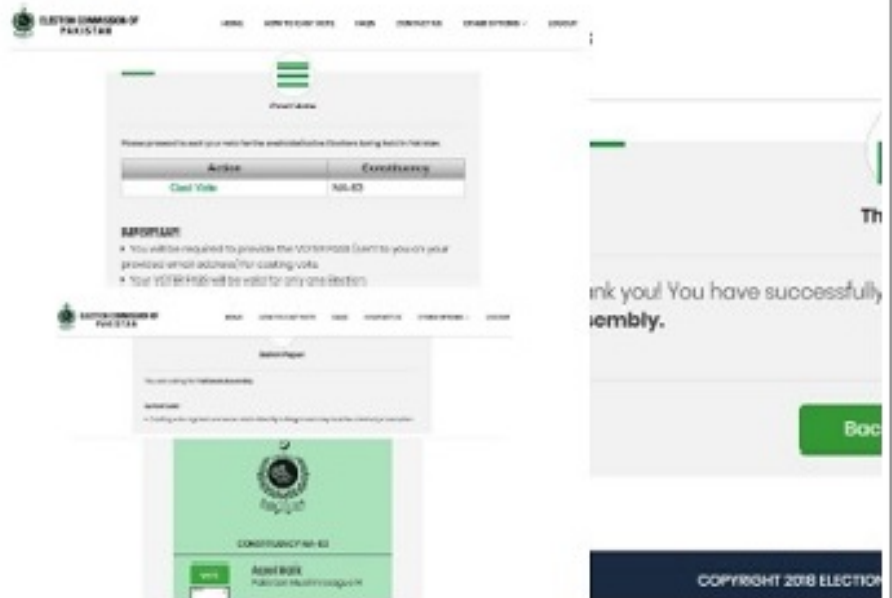


10/14/18, 12:35 PM from Dubai, United Arab Emi...



Naveed Kashif
@NaveedKashif

Finally It's Done.
#iVoting #NA63 #ByElections2018
#ByElections #PTI #Overseas



11:33 AM - 14 Oct 2018

5. Going Forward

- Law remains focused on i-Voting
- PCER inactive pending resolution of new appointments to ECP
- Recent by-elections have not seen i-Voting system in use.
- NICOP being abolished for labourers
- Multiple potential research efforts – User Interface, Authentication, Coercion-resistance, Cybersecurity; Compliance; DDoS; Legal Reforms; Materiality; EDR for i-Voting

Thank you!

 **Wajiha Hameed Sheikh**
@wajiha_hameed

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