Open CrowdRE Challenges in Software Ecosystems

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Software Ecosystem (SECO)

Characterised by:
- Cooperation between businesses
- Shared market
- Common technology platform

Activities in CrowdRE

1. Motivating crowd members
2. Eliciting feedback
3. Analysing feedback
4. Monitoring context and usage data

Groen EC, Seyff N, Ali R, Dalpiaz F, Doerr J, Guzman E, Hosseini M, Marco J, Oriol M, Perini A, Stade M. The crowd in requirements engineering: The landscape and challenges. IEEE software. 2017 Mar 28;34(2):44-52.

Case Study

Platform Provider

App Partner

Xero – *Platform Provider*

- Software product for small business
- Open platform used by app partners
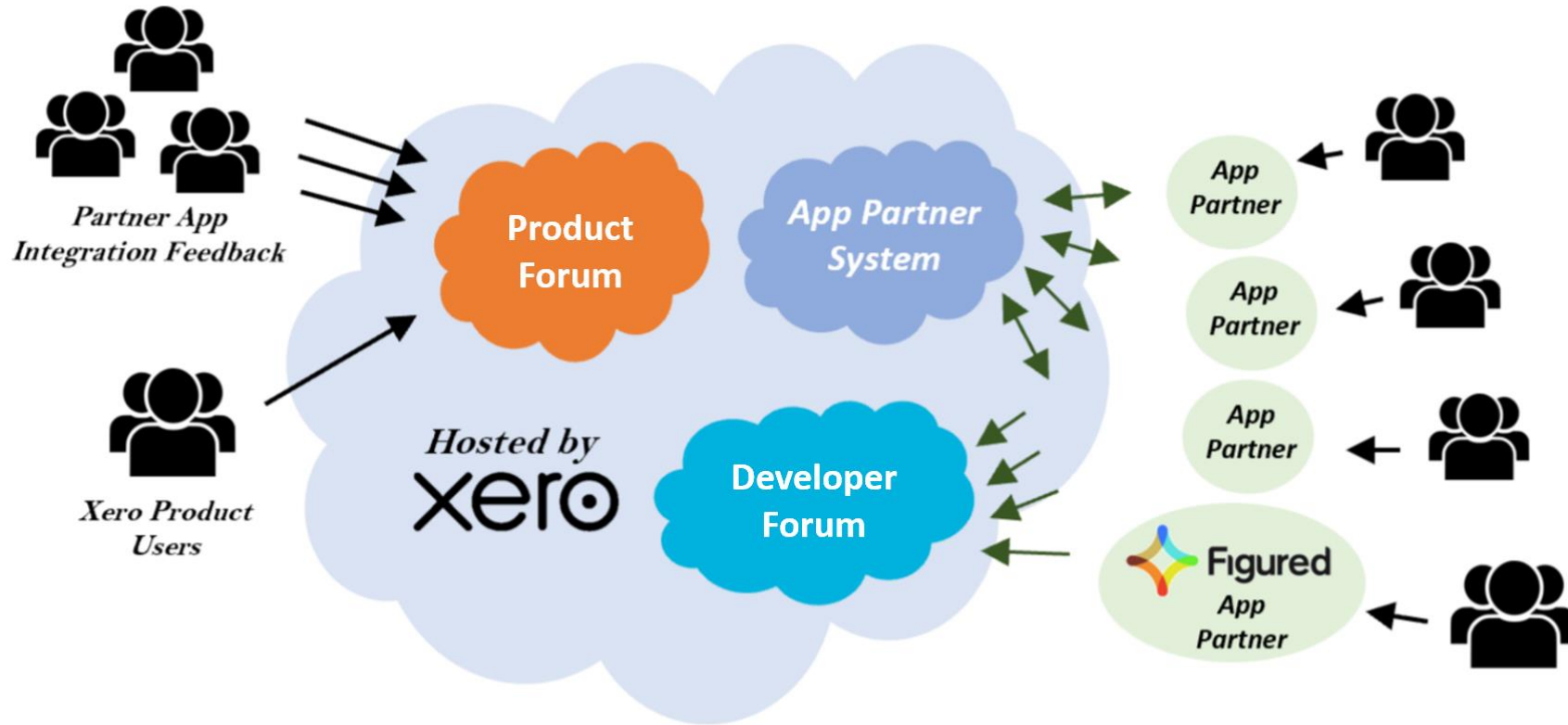- 750+ app partners
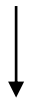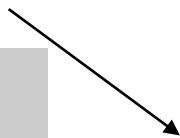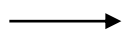- Manage relationships with partner program

Figured – *App Partner*

- Integrate with Xero
- Also offer niche farm management features
- Participate in partner program

Requirement Flow

Feedback Channels

1. Xero product forum
2. Xero developer forum(s)
3. Direct communication
4. Figured request forum
5. Figured – live chat

CrowdRE activity 1:
Motivating crowd members

- Important for ecosystem health
- Separate businesses must cooperate
- Cooperation incentivised through the app partner program

CrowdRE activity 1:
Motivating crowd members

- Motivating developers is a unique challenge
- Developers feedback is delayed
- Developer desires balanced against strategic plans
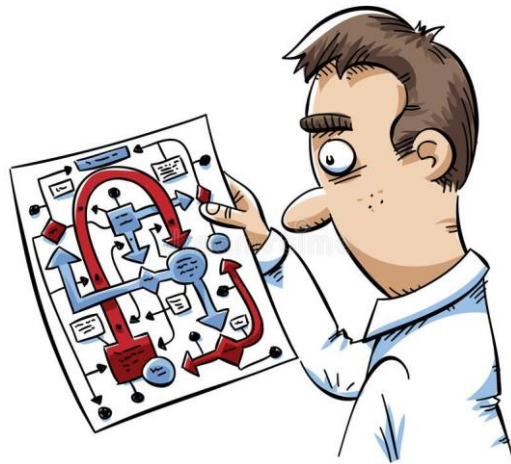
Open challenge 1
Motivating crowd members

How can platform providers motivate feedback across the many heterogeneous crowds of end users?

What strategies can motivate partners to elicit feedback from users who may not be directly exposed to the core platform?

CrowdRE activity 2:
Eliciting feedback

- Many feedback channels, interrelated products
- Clear communication isn't a given
- The line between products can be blurred
- End users may become confused

With the line between different products becoming blurred, how should platform providers and their partners coordinate feedback elicitation?

- Many channels can contain relevant feedback
- Must distinguish feedback for platform, core product, or partner apps
- Consider the combination of apps being used
- Partners may also integrate with competitor platforms

With many heterogeneous feedback channels, how can interested parties identify and manage relevant feedback?

- Context and usage data can help developers
- Should the platform provider have access to the data of partner apps?
- Sharing usage data raises security and privacy concerns
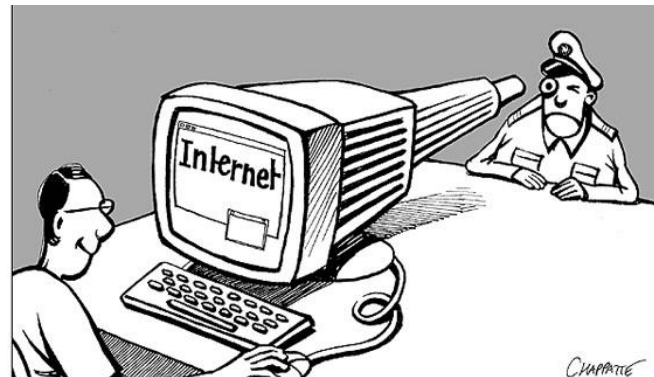
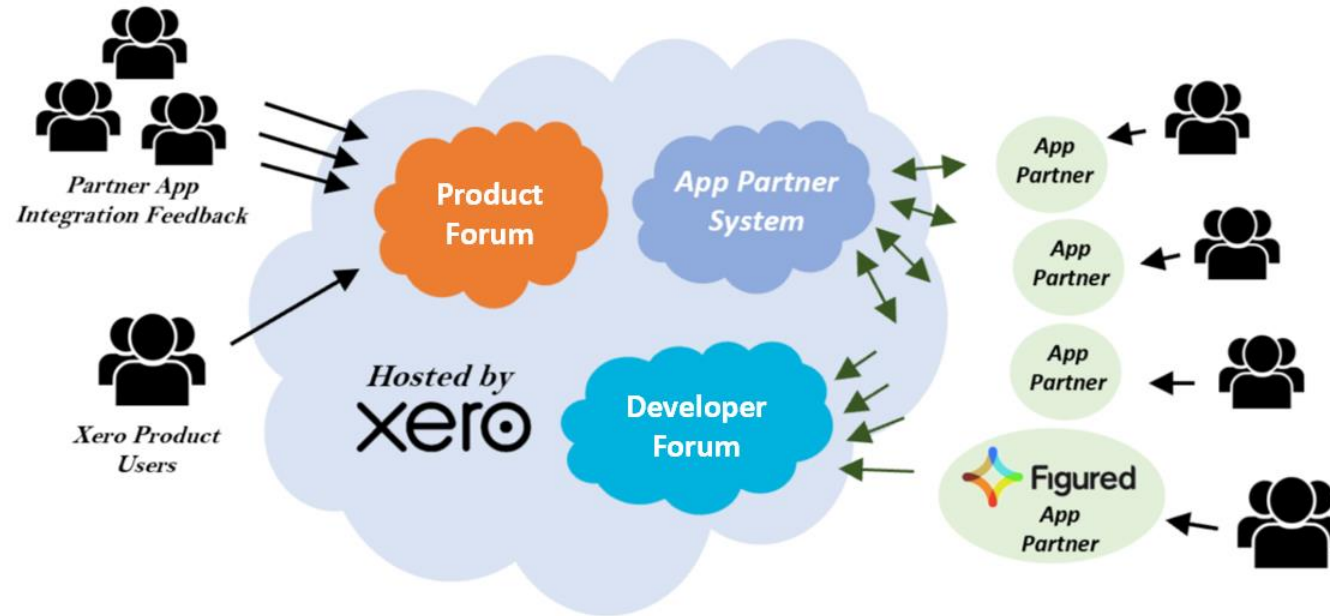# *Open challenge 4*
Monitoring context and usage data

Should platform providers monitor data from partner apps? If yes, how can user privacy be maintained?

- Four open CrowdRE challenges in SECO's
- Grounded in study of Xero and Figured
- Arise from multiple interested parties with integrated products

Thanks!

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