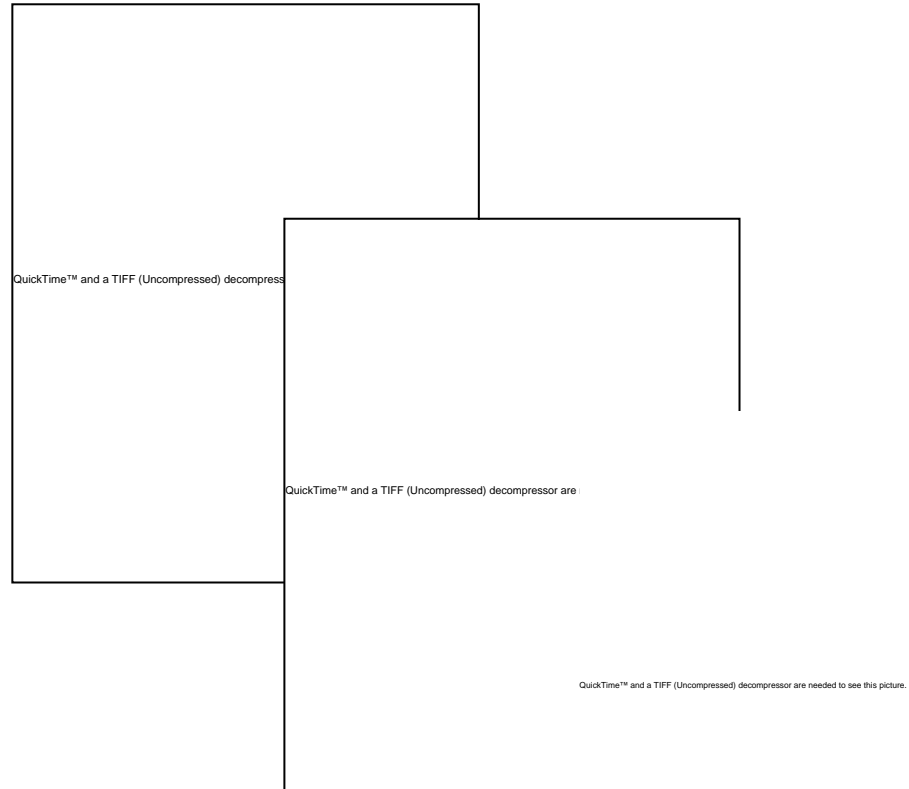# Extending the Notion of Feature Interaction

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QuickTime™ and a TIFF (LZW) decompressor are needed to see this picture.

New Types of Features

- Web services
- Me-centric
- e-Commerce
- Peer-to-Peer
- Ubiquitous

QuickTime™ and a TIFF (Uncompressed) decompress

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New Types of Interactions

- Most studied interactions of *functional* nature
  - eg between (the functions of) CW and CFB
- However, each functional composition impacts the satisfaction of non-functional requirements
  - Mostly neglected by current research!
- It makes sense to talk of *non-functional* features
  - Usability, privacy, availability, security, …
- Often crosscutting aspects/system concerns
  - eg security affects many different features

Feature Interaction Problem

- Relatively easy to compose features/components

Build the system right

- But hard to combine features/components in a way that the result is a *valid* and *useful* system

Build the right system

Non-Functional Impact Analysis

Non-Functional
Composition

Functional
Composition

QuickTime™ and a TIFF (Uncompressed) decompressor are needed to see this picture.
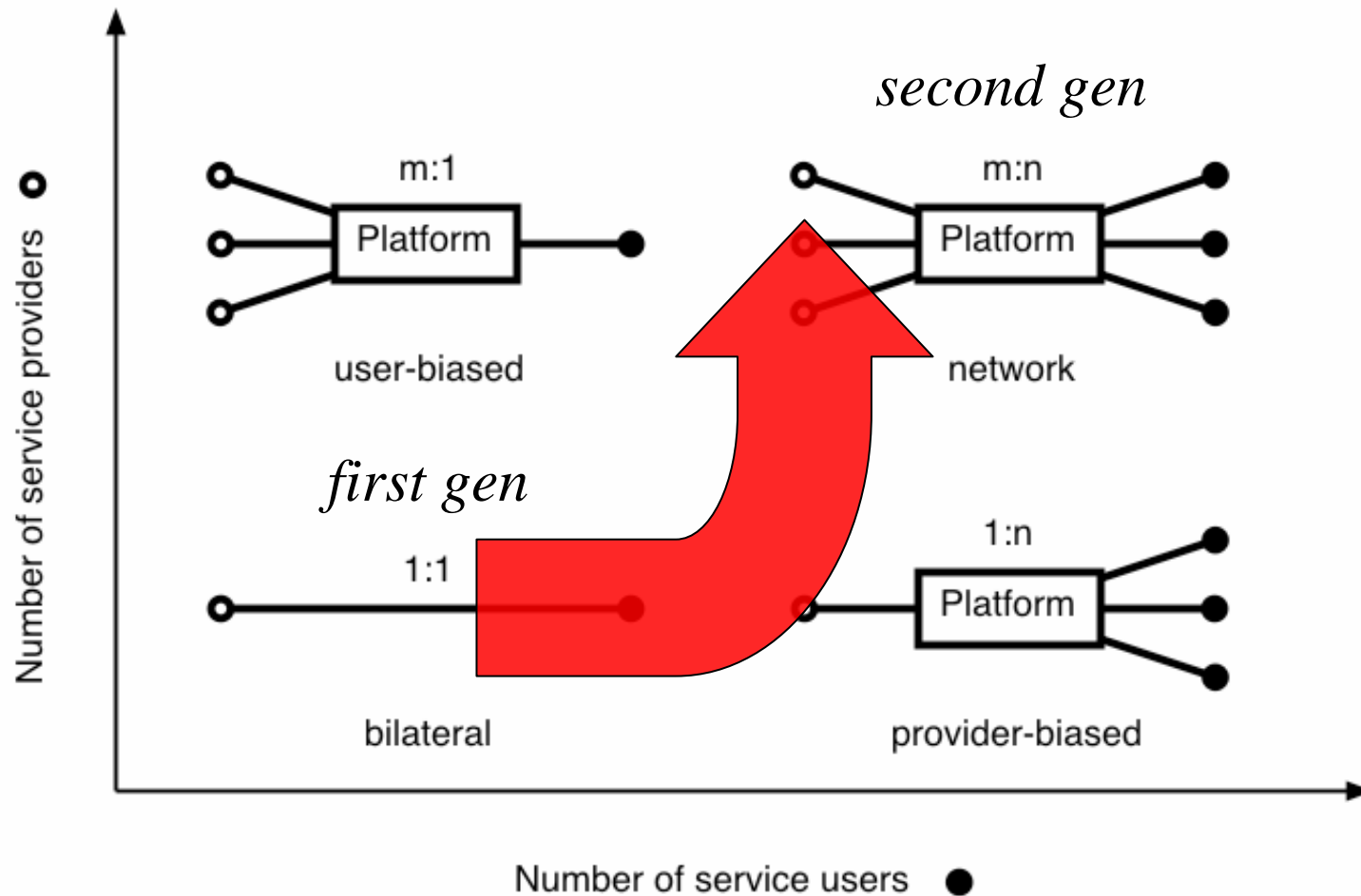
Softgoal

Goal

Task

Me-Centric (Web) Services

- m-Commerce
  - Personalization through information filtering
  - Based on user identity, profile, and the user's location

- Many design issues
  - Dynamic assembly
  - Trust (service quality, bias, …)
  - Privacy concerns
  - Security
  - Semantic ambiguity
  - …

Towards Dynamic Assembly

Conclusion

- New types of features
- New types of interactions
- Build the <u>right</u> system
- Non-functional impact analysis
- Me-centric (web) services

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