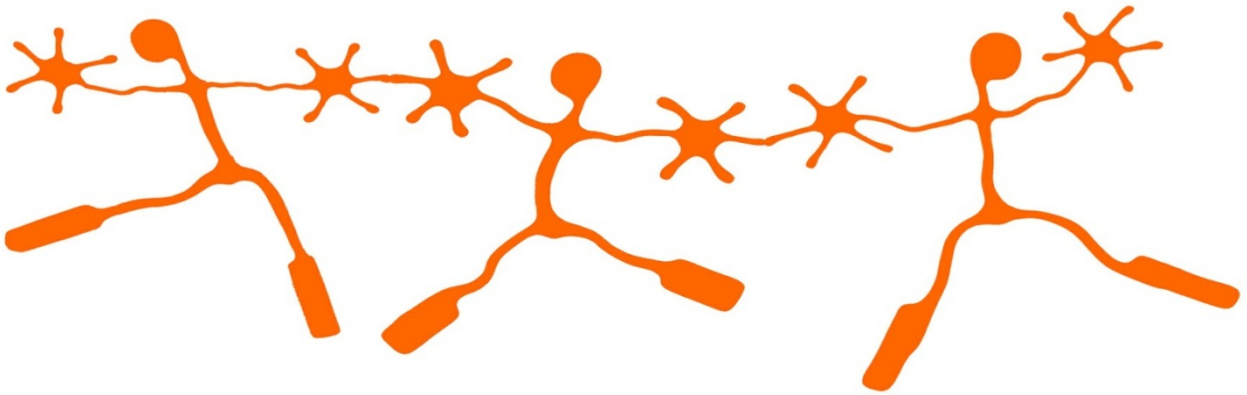

Diffusion and sustainability of elearning innovation in higher education teaching practice:
more than the sum of its parts

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TCC 2016

Connecting the actors and the factors

The actors in my research

- Teachers, support staff and management in universities involved in *elearning innovations**

My research examines

- What are the factors involved?
- How are the actors and factors connected?
- What are the implications for spreading new faculty-led practices?

* new practices in teaching and learning with digital technologies originated by individual or small teams of teachers

Factors that influence diffusion and sustainability:

- Change management processes
- Leadership
- Funding, timeframes and budgets
- Project management
- IT and software development systems and support
- Evidence of potential for wider adoption
- Understanding of new pedagogies
- Dissemination of ideas within scholarly communities
- Utilisation of networking opportunities
- Readiness to adopt and adapt ideas
- Willingness to share ideas and ownership of innovations
- Professional learning

(Elgort, 2005; Salmon, 2005; Gunn, 2010; Smigiel, 2013; McIntyre, 2014; Adomssent et al., 2014)

Systems:

- Macro (management)
- Meso (support services)
- Micro (teaching)

(Robertson, 2008)

Actors:

- Innovators
- Early Adopters
- Early Majority
- Late Majority
- Laggards

(Rogers, 1962/2003)

Factors

- Change management processes
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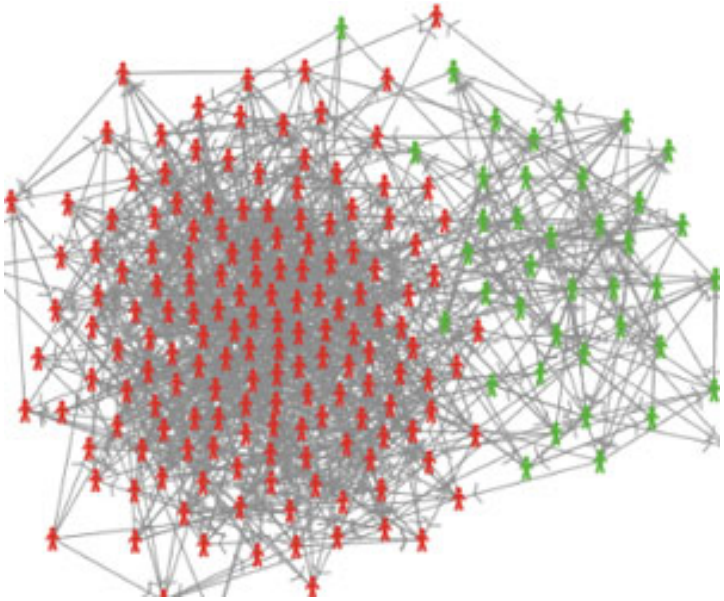
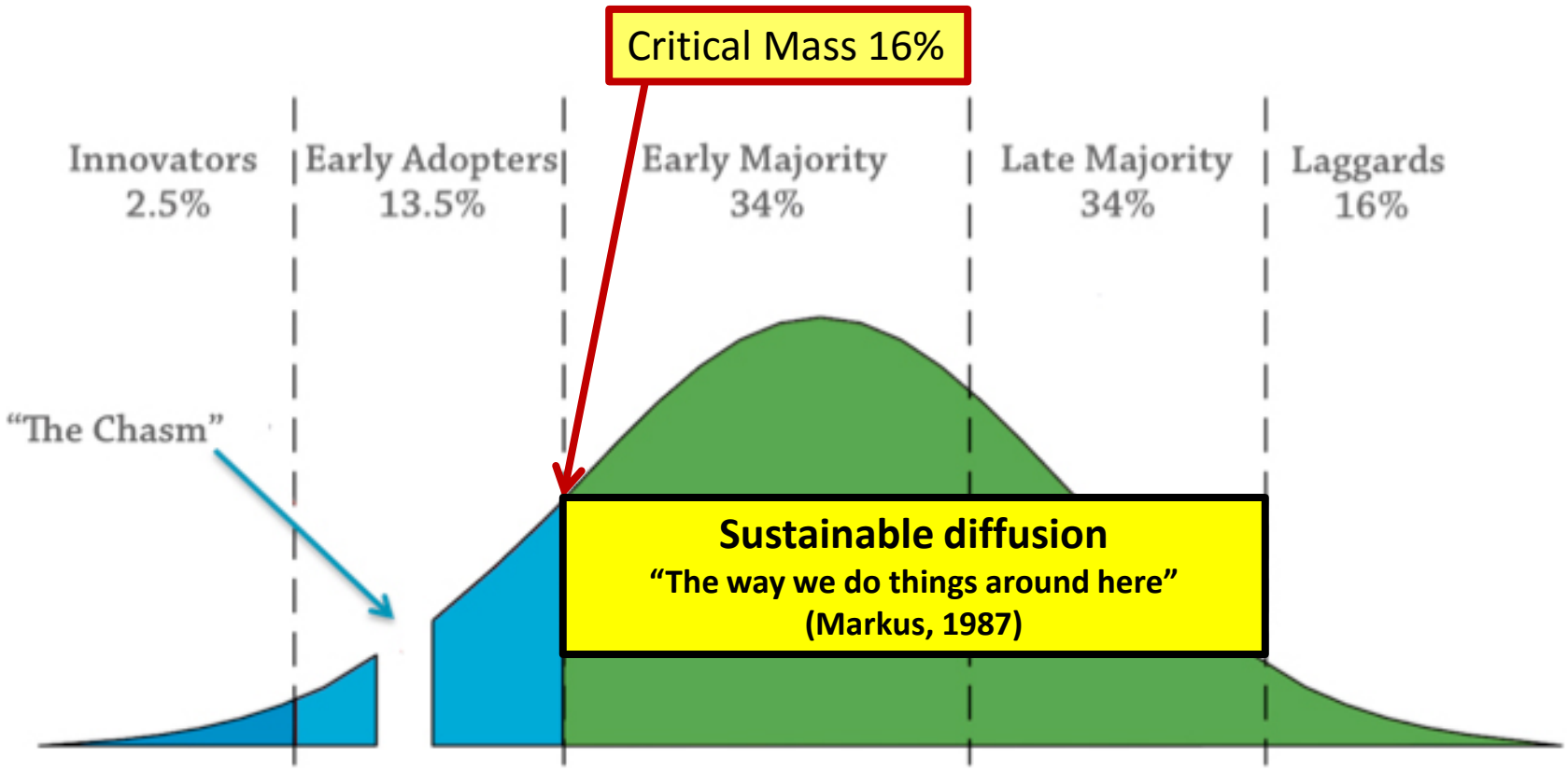
Actors

- Macro (management)
- Meso (support services)
- Micro (teaching)
  - innovators
  - early adopters





Moore's Chasm in Rogers' **Diffusion of Innovations** Technology Adoption Lifecycle

It was thought the printing press would make lectures redundant, but instead universities used the technology to their advantage. Flickr/Seattle Municipal Archives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Elearning innovations

- **Automated feedback** on practical work
- Authentic **language assessment** online
- **Assessment using an online glossary** activity
- Laptops in lectures: **learning from consensus**
- **Reflective peer-to-peer dialogues**
- MOOCs (**Massive Open Online Courses**)
- Interaction by **online polling** during synchronous teaching sessions
- Connecting a diverse sector through **social media**
- **Simulation** for authentic learning and engagement
- **Blended learning** using authentic case studies: a virtual learning environment

Sample from teaching staff presentations at Flinders University , July 2013

http://www.flinders.edu.au/cedict/e3

Sustaining elearning innovation

Sustainable diffusion (integration) of an elearning innovation has been achieved when …

- ***evidence of benefits*** *to teaching and learning*
- ***proven potential*** *for the innovation to be adopted*
- ***further development is not dependent*** *on the individual(s) who created it*

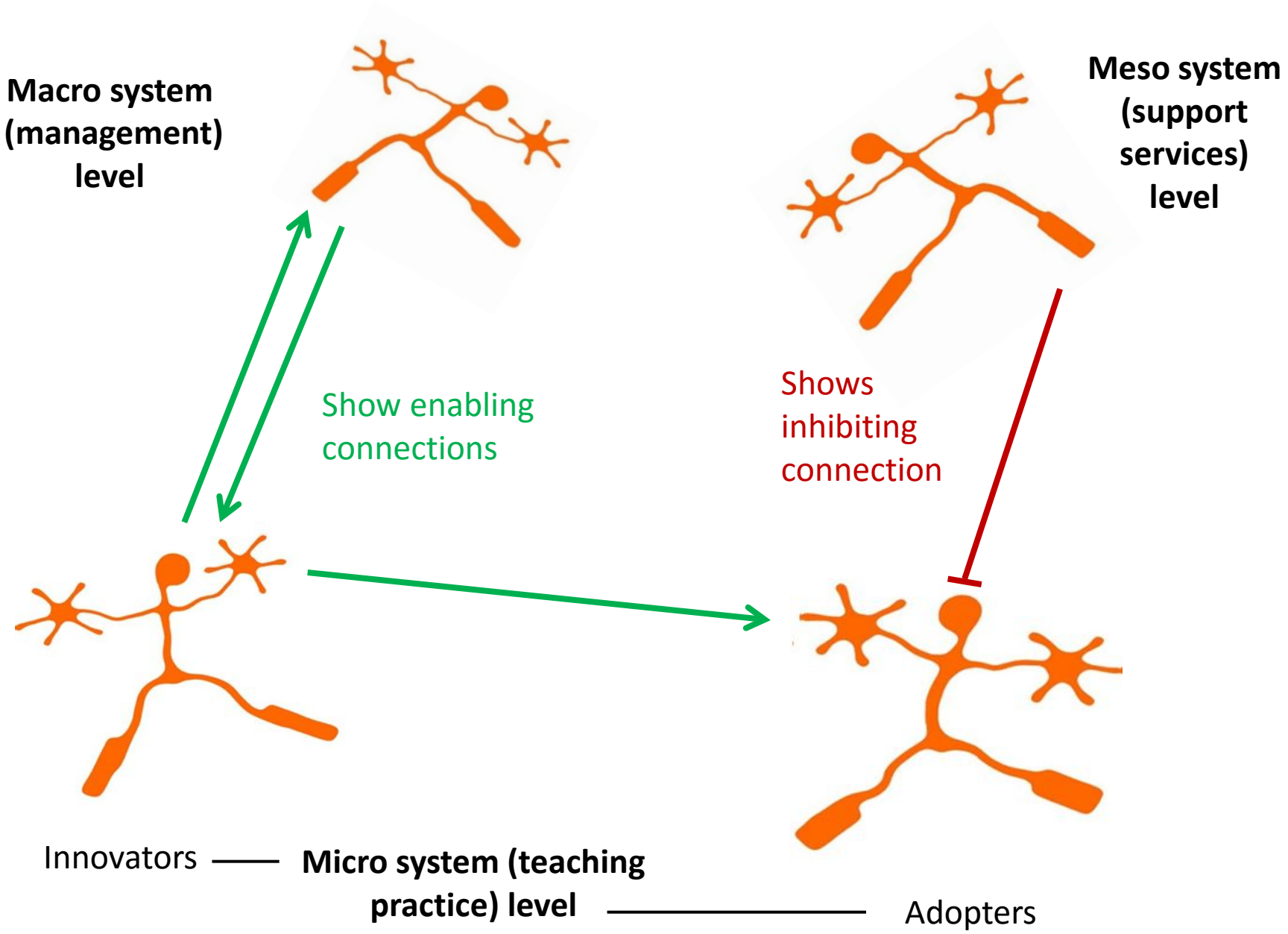
(Gunn, 2010)

We know about WHAT needs to happen but not HOW this happens

The challenges

- Implementation of elearning is **complex** (Salmon, 2005)
- There are **multiple levels of influence** (Robertson, 2008)
- It is **not a technical rational linear activity** (Elgort, 2005; Levin & Datnow, 2012)

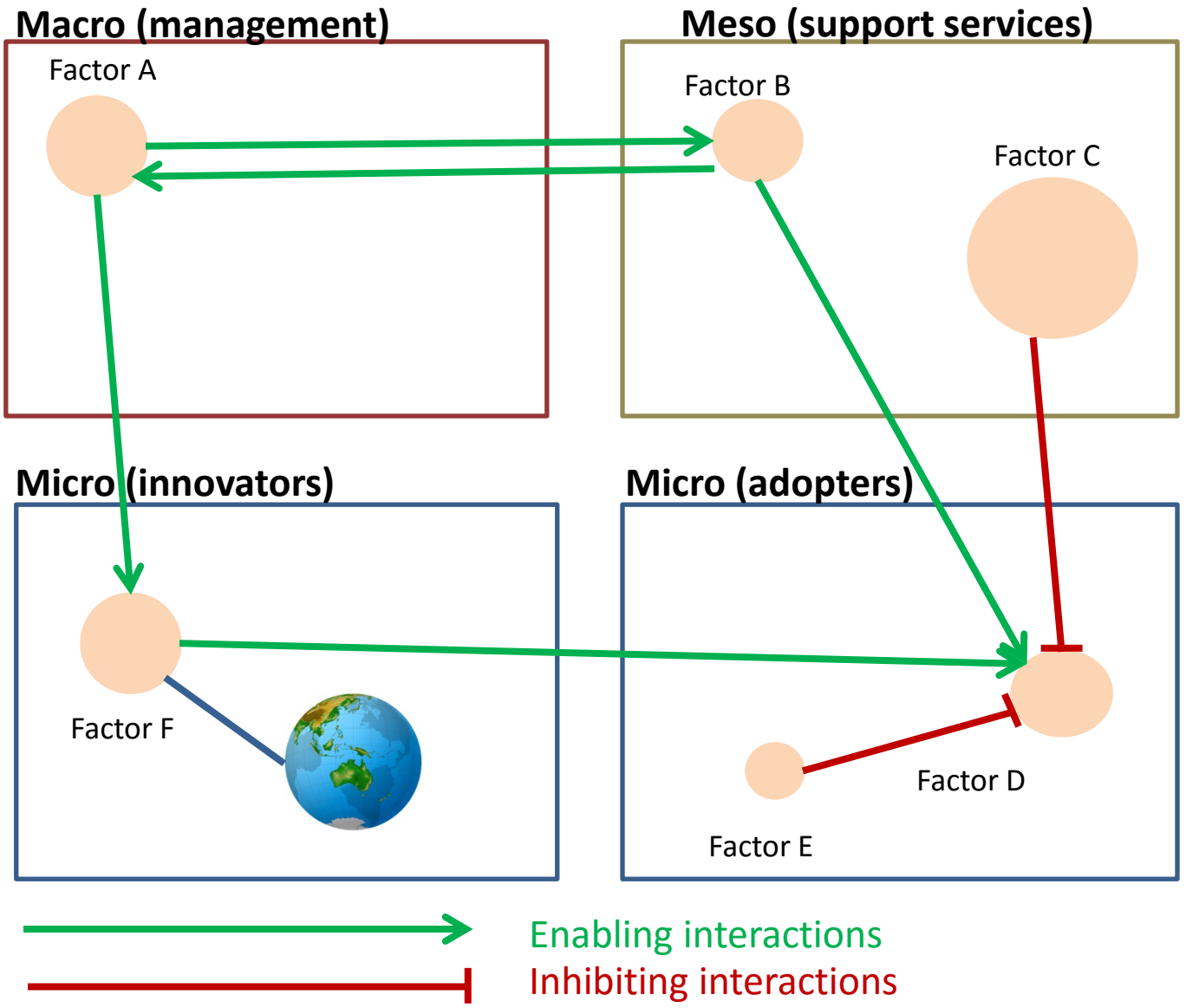
A ‘Wicked’ problem



From factors to actors: more than the sum of its parts

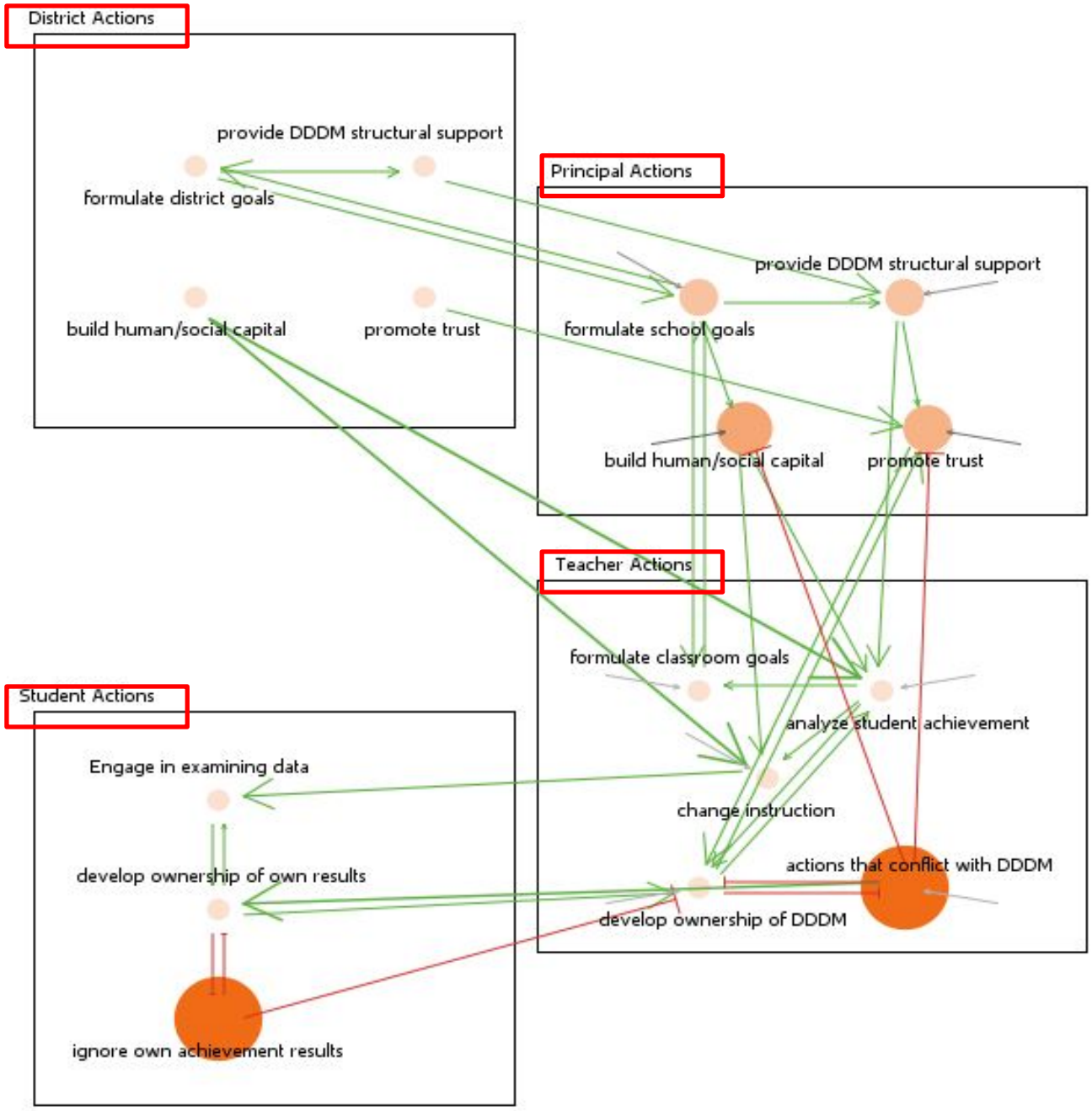
(Tubaro & Casilli, 2010)

Elements of a Multi-Mediator (Agent-Based) Model



Indicates factors (also known as agents) that are found within a system

Controls levels of influence exerted by factors


District Actions
provide DDDM structural support
formulate district goals
build human/social capital
promote trust
Principal Actions
provide DDDM structural support
formulate school goals
build human/social capital
promote trust
Teacher Actions
formulate classroom goals
analyze student achievement
change instruction
actions that conflict with DDDM
develop ownership of DDDM
Student Actions
Engage in examining data
develop ownership of own results
ignore own achievement results

Significance of this research

No previous studies have been conducted that model the dynamic complexities of diffusing and sustaining elearning innovations in higher education teaching practice

Using this method extends and opens up further opportunities for applications of Multi-Mediator Modelling software in educational and social research

Thank you

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