Falling between stools?

Straddling disciplines within academia and discovering the limits of quantitative approaches in transdisciplinary research

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Academic background – pre postdoc

• BSc – Chemistry

• MSc – Clean Technology (Engineering)

• PhD – Animal Science: Modelling the environmental impacts of pig farming systems and the potential of nutritional solutions to mitigate them
Modelling environmental impacts of animal production systems

Recent work in this area:

- The potential of genetic change and breeding to reduce the environmental impact of pig production
- The potential of smart management technologies to mitigate the environmental impacts of livestock systems
- The implications of Animal health issues for the environmental impacts of livestock production
Modelling Techniques

• Life Cycle Assessment

• Marginal Abatement cost curves (Bio-economic modelling)

• Genetic selection indices

• Linear programming for system optimisation – e.g. feed formulation for livestock

• Novel applications of uncertainty and sensitivity analysis techniques
Some of the industry partners from projects on livestock systems
SHARECITY

SHARECITY is a 5-year research project funded by the European Research Council which is exploring the practice and sustainability potential of city-based food sharing economies.

Aims & Objectives

To establish the significance and potential of food sharing economies to transform cities onto more sustainable pathways

1) Develop deeper theoretical understanding of contemporary food sharing

2) Generate comparative international empirical data about food sharing activities within cities

3) Assess the impact of food sharing activities on urban food sustainability

4) Explore how food sharing in cities might evolve in the future

Food sharing definition used - having a portion [of food] with another or others; giving a portion [of food] to others; using, occupying or enjoying [food and food related spaces to include the growing, cooking and/or eating of food] jointly; possessing an interest [in food] in common; or telling someone about [food]” (Davies and Legg, 2018: 237)
Why focus on urban food sustainability?

~ 70% of global population living in cities by 2050

Issues for Urban Food Systems

Social
- Increased Isolation (dining alone), Food Poverty, Detachment from Food and Nature

Environmental
- Land Use Change, Food Waste, Increased Meat Consumption

Economic
- Fair Returns to Farmers, Affordability and Accessibility, New & Diverse Food Economies

SOCIETAL META-CHALLENGE
To transform urban food systems in a just and sustainable manner

SHARECITY INNOVATION
Reframing debates to include city-based food sharing economies
Food sharing - very diverse

- 70% of initiatives share multiple food related stuff, spaces or skills
- 53% of initiatives share via multiple methods
- 21% of initiatives use multiple organisational structures
Case study example: Be Enriched

**Summary:** Be Enriched is a charity sharing food, knowledge and skills through gifting.

**Stated Goals:** “Be Enriched is a youth and community charity set up in 2013 focused on supporting and developing the community. . . . We develop programs which balance inequalities whilst building community cohesion and developing skills in young people.” “We believe in enriching local life through connecting people through community activities and cultivating respect over a bite.”

**Impacts:** There are some limited quantitative figures included on the website and references to community building.

Summary of Be- Enriched activities:

- Provide important shared eating experiences to those who may otherwise not have them

- Provide weekly access to balanced cooked meals using fresh ingredients for those who otherwise may not get them

- Provide education on food safety, nutrition, cooking skills and food budgeting for youth groups and broader audiences in the form of cooking classes and take home educational materials

- Use platform (particularly online) to engage in activism to promote changes in food policy and increase access to healthy, affordable food for everyone through grassroots campaigns
The tricky bits: the value of shared eating experiences

• Be-Enriched quite specific that participants in their canteens say they come for the company not the food!

• Shared eating is known to alleviate loneliness and increase levels of life satisfaction, happiness and trust in local community (Dunbar, 2017)

• Dining habits themselves, and more specifically the number of meals consumed by an individual that are shared and with whom, are a modern indicator of social capital (Julier, 2013)

• In fact the frequency of social dinners has been shown to be correlated with the size of an individuals close support network (Dunbar, 2017)

• But can delivering shared eating experiences be reported as an impact in its own right? What value frequency, regularity etc.?
The SHARE IT toolkit

SHARE IT
The SHARECITY sustainability Impact assessment Toolkit

Toolshed
The Toolshed will support you to create a full sustainability impact report for your initiative and a short summary to quickly communicate these impacts to others.

Talent Garden
The Talent Garden is a space for food sharing initiatives to share stories about their activities and impacts.

Greenhouse
We have created a space called the Greenhouse where food sharing initiatives can connect with others around the world to share experiences and learn from each other.

Who we are
- Name: Communities against loneliness
- Location: Abingdon

Goals and Activities
- Goals: To combat loneliness in cities through hosting shared eating events
- Activities: Shared Cooking/Fasting, Redistribution

Our Impact Areas
- Our key areas of significant impact are:
  - Increased confidence and participation in cooking
  - Food waste reduction
  - Reducing pressure on food budgets

Specific Impacts Include
- 400 people shared meals at our events
- 300 volunteers reported improved self-confidence
- £30,000 total saved to peoples food budgets through our activities
The Co-design process

**Review**
- Review of Sustainability Impact Assessment (SIA) methodologies for urban food systems
- Match relevant indicators to stated goals of initiatives

**Respond**
- Analysis of needs and capabilities
- Review of relevant literature beyond existing SIA methodologies for urban food systems
- Development of preliminary indicator suite

**Refine**
- Refinement of indicator suite
- Identification of additional indicators
- Development of SHARE IT process & concepts

**Workshop 1**
- Establish the initiatives:
  - Current impact reporting practices
  - Reporting goals and needs for the future
  - Realistic reporting capabilities

**Workshop 2**
- Consideration of indicator suite
- Challenges of data collection
- Gap analysis

**Workshop 3**
- Reflection on indicator suite
- Consideration of SIA indicator framework (Toolshed)
- Additional concepts added to SHARE IT
  - (Talent Garden + Greenhouse)

**SHARE IT Toolkit**

- Talent Garden
- Toolshed
- Greenhouse

Direct co-design with initiatives
Desk based research
SHARE IT – FUNCTIONS

The Toolshed
A resource where initiatives can create a full Sustainability Impact Assessment report of their activities.

Also produces a 3 page summary report of impacts as a communication tool for potential funders etc.

The Talent Garden
The Talent Garden is a space for food sharing initiatives around the world to share stories about their activities and impacts.

These can be written stories, images, videos or even reports that are generated in the Toolshed.

The Greenhouse
A space where food sharing initiatives can connect with others around the world to share experiences and learn from each other.
The Toolshed

• Driving the Toolshed is a sustainability impact assessment (SIA) framework developed specifically for food sharing initiatives

• The framework contains 34 indicators across 4 pillars of sustainability: Economic, Environmental, Governance and Social

• Framework based on existing SIA frameworks + novel indicators specific to the activities of food sharing initiatives

• The tool links reported impact areas directly to the relevant UN sustainable development goals

• The framework is designed to consider impact at the organisational level
Impact areas not traditionally considered

The Toolshed integrated a number of impact areas beyond those traditionally considered in SIA of food systems:

- Increasing levels of meal sharing
- Increasing the friendship/support network of participants
- Increasing levels of self-efficacy amongst participants
- The potential of food sharing initiatives to influence the choices and values of participants with respect to food
Research challenges

• Ensuring the Sustainability Impact Assessment is both accessible and informative for initiatives who may have little time and resources to dedicate to impact reporting

• But any assessment also needs to be considered rigorous enough for its outputs to be valued by funders and policy makers

• Understanding the temporal considerations around the impact of sharing is a wicked problem!

• Ethical considerations around the application of quantitative sustainability assessment to food sharing initiatives
The SHARE IT toolkit

• Launched in last week check it out - shareit.sharecity.ie

• Already 14 food sharing initiatives registered

• National initiatives including FoodCloud in Ireland and Ackerdemia in Germany have already made their reports
Some reflections from experience

Straddling the boundary between natural and social sciences is challenging but can be a rewarding space to operate in.
Some reflections from experience

• Non-academic partners come in many different forms and need different approaches

• Know exactly why you are taking a particular postdoctoral role

• Don’t be surprised to experience imposter syndrome if changing research focus
Recent papers


