

Disruptive technologies? Scaling relational geographies of ICT-mediated surplus food redistribution

Marion Weymes & Anna Davies, Trinity College Dublin
www.sharecity.ie @sharecityire

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Outline of Paper and Presentation

How Information and Communication Technologies can offer opportunities for surplus food redistribution

1. Landscape view of initiatives redistributing surplus food
 - 403 initiatives across 100 cities
2. In depth analysis of one ICT mediated food surplus redistribution initiative
 - FoodCloud – operate across Ireland and the UK



Food loss & waste: Emblem of broken food system?

The Food Waste Iceberg

Bill at producer price:
\$750 000 000 000
Bill at retail price:
\$1000 000 000 000

what
we see

Eroded Land

GHG Emissions

Cleared Forests

Increase in Food Prices

Increased Water Scarcity

Bill from nature:
\$700 000 000 000

what
we don't see

Loss of Wetlands

Loss of Biodiversity

Climate Change Damages

“Ensure sustainable consumption and production patterns“. Goal 12

“Halve per capita global food waste at the retail and consumer level, and reduce food losses along production and supply chains by 2030“. Goal 12.3

UN Sustainable Development Goals

*“In addition to the **environmental** imperative, there is a **moral** one: we simply cannot allow one-third of all the food we produce to go to waste, when 870 million people go hungry every day.”*

FAO Director-General José Graziano da Silva, 2014



Food Surplus Redistribution

- *The collection of edible food that would otherwise be discarded and its subsequent relocation to individuals, organisations or communities.*
- Increasing popularity of anti food waste discourses and support for food surplus redistribution as a viable solution.
- Historically though food banks, charitable giving, gleaning and 'dumpster diving'.
- ICT has been identified as means to transform ways in which redistribution takes place and extend impacts.



FOOD COWBOY
USES LOCATION-BASED TECHNOLOGY TO ROUTE FOOD "WASTE" TO ITS HIGHEST AND BEST USER



"LIKE MATCH.COM FOR FOOD WASTE"
— MODERN FARMER

JOIN THE FOOD SHARING REVOLUTION

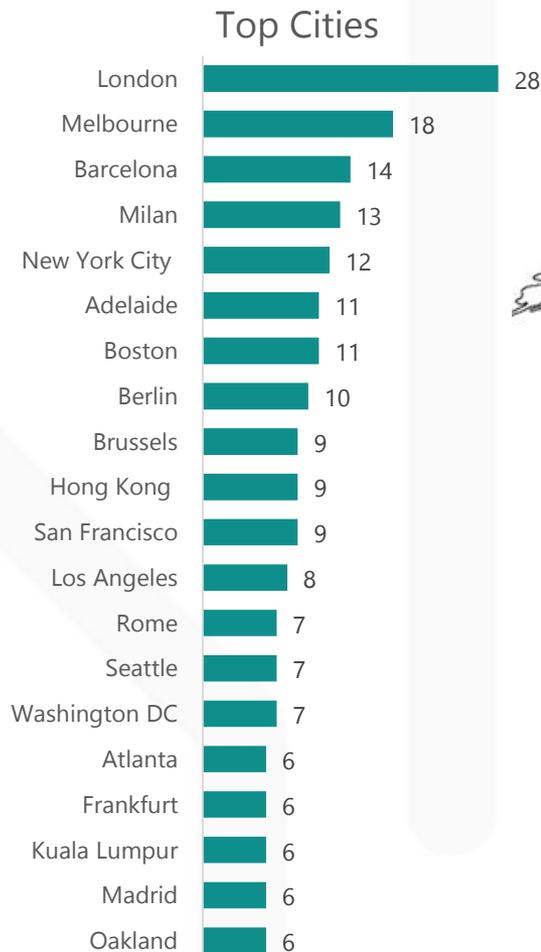
OLIO is a free app connecting people with their neighbours and with local shops so surplus food and other items can be shared, not thrown away.

If you love food, hate waste, care about the environment or want to connect with your community, OLIO is for you.

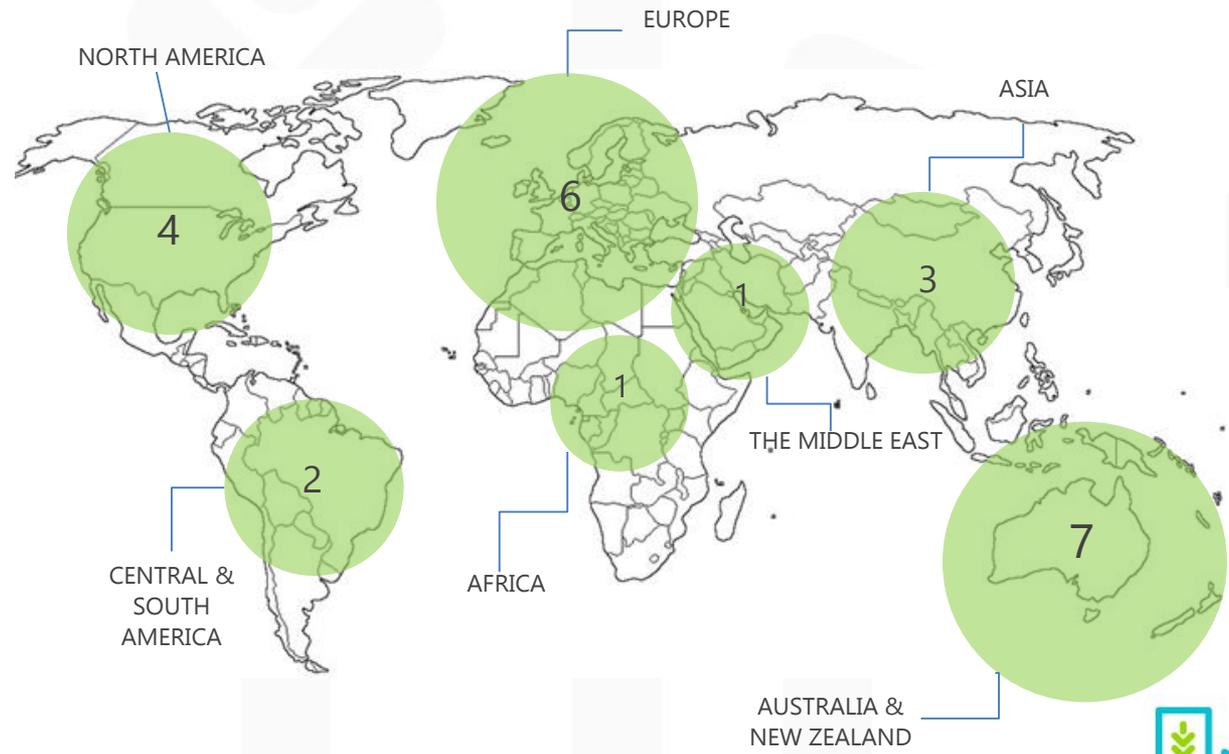


SHARECITY100: food sharing surplus

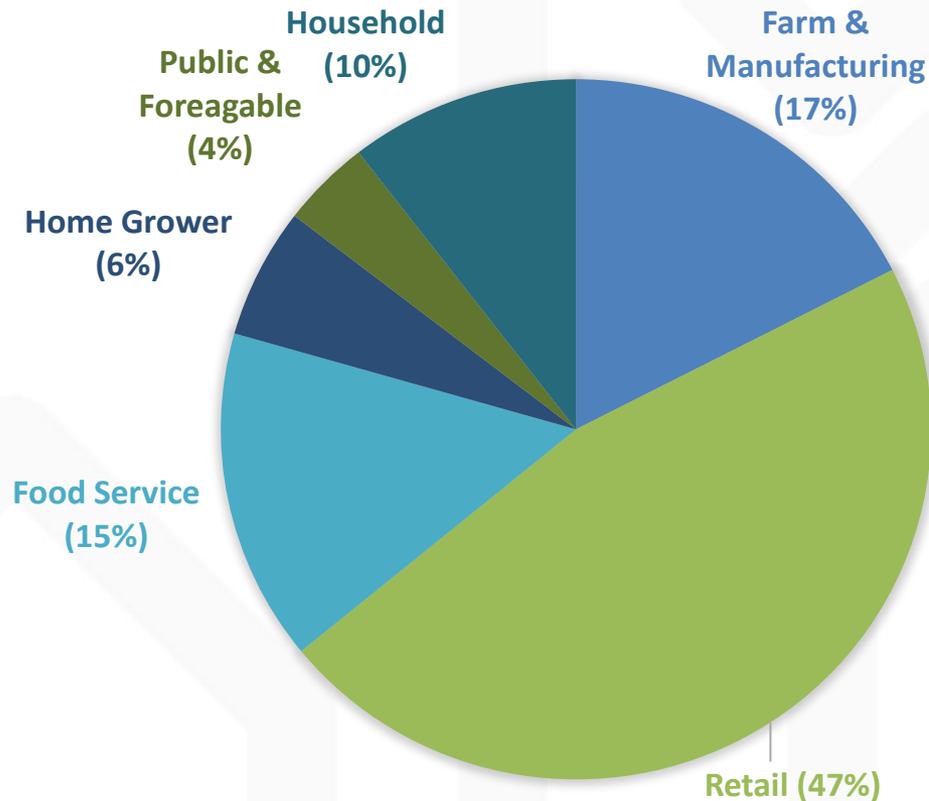
➤ 403 food surplus redistribution initiatives



Average number of initiatives per city



The what & how of sharing surplus



- 75% of ICT-supported initiatives have emerged since 2008.
- 47% of activities are targeting food “waste” at retail level.
- Previous research identified the retail sector as the most accessible.
- 68% of online platforms and 62% of apps connecting donor to beneficiary target food waste at the retail sector.
- 34% facilitate the redistribution of food from retailers to charities.



Food Cloud



Semi-Structured interviews with:

- Founders and CEOs
- Customer support staff
- Food donors
- Food Beneficiaries
- Waste policy expert
- Food safety expert

First beginnings

Iseult and Aoibheann met in February 2012, when a group of students bonded over a love for food and distaste for waste.

By June 2012, they facilitated the first donation from the [Honest 2 Goodness farmers market](#) in Glasnevin to the charity, Don Bosco Teenage Care.

November 2012

Aoibheann and Iseult, in collaboration with other organisations, hosted the Feeding the 5000 event in Dublin.

They realised that they needed technology to make the process scalable and sustainable and developed the FoodCloud App.

August 2013

In August 2013, Aoibheann and Iseult registered FoodCloud as a not-for-profit company and were accepted on Ireland's leading tech accelerator programme, Launchpad.

May 2014

FoodCloud secured trials with Tesco, Supervalu, Fresh, Starbucks and some smaller cafes and bakeries.

July 2014

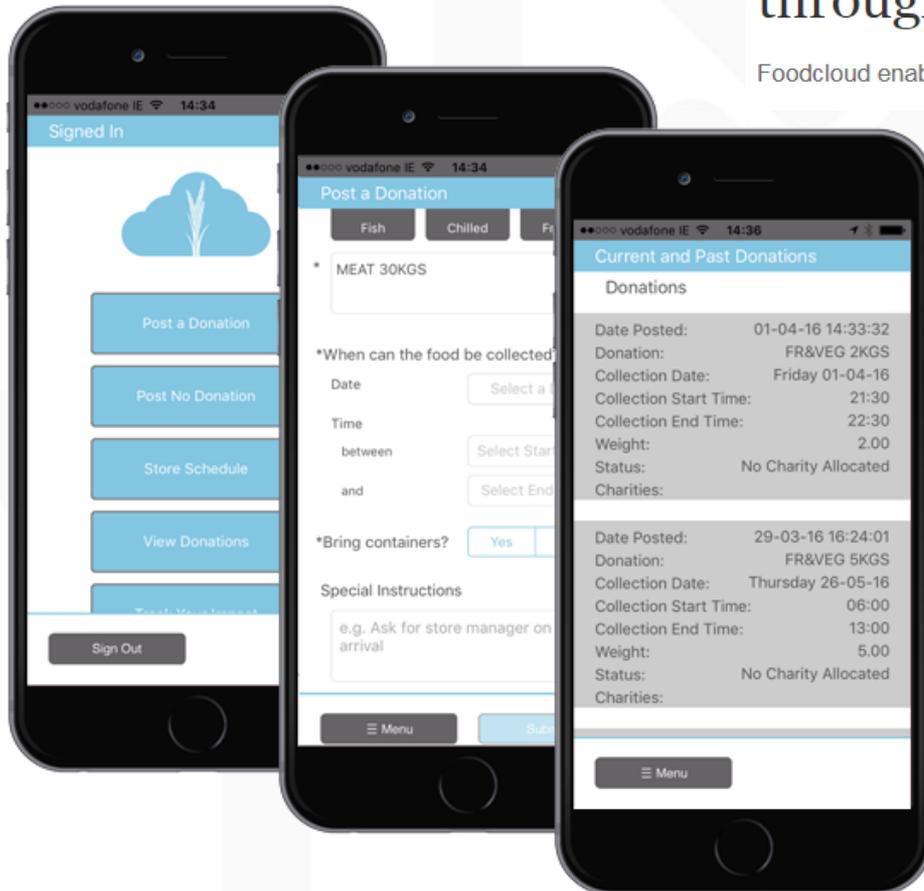
FoodCloud announced a ground-breaking partnership with Tesco that will see all surplus food from their 146 stores redistributed to charities across Ireland.

FoodCloud recruited a wonderful team to help scale the initiative across Ireland. Now they work hard to support our networks of businesses and charities and help us achieve a vision for a world where no good food goes to waste.

The FoodCloud App

Tesco donates 60,000 meals to charity ...
through an app

Foodcloud enables businesses to donate their excess food to charity.



Food waste The Observer

FoodCloud: new app proves a nourishing
idea for wasted food

The distribution of surplus food in Ireland is being transformed by FoodCloud.

► **FoodCloud - The people who
make it a life-changing app**

Updated / Tuesday, 11 Aug 2015 12:41



WORLD NEXT GENERATION LEADERS

**The Food-Sharing App That
Helps Hundreds of Irish
Charities Just Went
International**

ICT and Food Redistribution



*“With the technology we could see if one store has had five collections not accepted that week and capture that, whereas I think previous organisations that would have tried the **retail wouldn't have had that real time information without the technology.**” - FoodCloud Founder*

*“What they were donating, we would have saved them a lot of money. **But we ourselves would take on that cost, because we would have to waste all, say 80% of what they gave us.** A large proportion was baked goods, pastries and things, and the rest were vegetables seriously looked like someone might have stood on them. And why would they donate that? Oh the homeless will eat it. What nonsense!” – Charity on receiving food donations pre-FoodCloud*

- Professionalises food surplus redistribution and allows access to large retailers.
- Disrupts power balance and offers protection to charities.
- Improves food access, quality and safety.



ICT and Scalability



Powered by **FoodCloud**



*“We initially started by matching farmers' markets with charities around the corner, but realised that wasn't scalable. We started looking internationally at ‘how do you scale that retail level solution?’ and **what we found was that you needed some kind of technology.**” – **FoodCloud Founder***

*“Basically **FoodCloud provides the technology** and the expertise and knowledge of rolling it out in Ireland. And FareShare kind of go out and do the kick off meetings and take that support function.” – **FoodCloud Founder***



ICT is not a 'silver bullet'



- Relationship management is crucial for successful and continuous donations.
- Charities rely on scheduling and routine and do not have the capacity to respond to random and unpredictable offers of food.
- Access to ICT can be problematic for charities.

*They are really sceptical about 'flash in the pan' apps, and **everyone seems to have an app** and they are like "it doesn't work, we've tried it", – FoodCloud founder on views of ICT in charity sector*

*"If you don't understand the charity and the food business you can just give them an app like we did at the start. Just said "oh sure just put it up, somebody will accept it". **So if you don't have the supporting processes it does fall down.**" - FoodCloud founder*

*"Their lifestyles are chaotic enough. You might think 'oh it's just food coming in the door', but it takes a lot of organisation... Any little bit of help is great, **as long as it's structured.**" - Charity Recipient*



Changes at surface level

- Retailer practices in generating surplus remain unchanged

*“We are **not going to be reducing bakery for the customer from now on, so we might have a little bit more for FoodCloud.** We used to reduce it at 5 o'clock in the evening, but now the direction is that if the customers are coming in to buy bread they will buy it regardless.” Retail donor*
- Broad agri-food system is not changing and large retailers are still ‘price setters’.
- Socioeconomic status quo not addressed.

Producers



Traders and retailers



Consumers



Conclusions

- Food surplus redistribution is a diverse and growing practise and ICT is increasingly used to facilitate and mediate connections.
- ICT offers opportunities to scale operationally and geographically.
- ICT has to work for both food donors and beneficiaries and relationship management is key.
- In this case ICT supported retail-to-charity food surplus redistribution was not found to reduce food waste production at source but offers the potential to build data and begin conversation.
- Food surplus will always exist and FoodCloud have successfully used ICT to divert food from landfill and feed people in need.



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