What is Food Literacy?
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Food is a critical element of our everyday life. It is needed to provide nourishment for our bodies. It provides us with ways to develop and maintain our social relationships while also maintaining our traditions and heritage. Food connects us to the land through available foods and time through seasonality and celebrations. The capacity to be food literate is necessary to be able to ‘read’ our food landscapes while also ‘seeing’ how food systems are implicated in damage to ecosystems. The growing interest in food literacy offers a number of different approaches that both frame its intent and potential.

Food literacy has discussed as a personal attribute. It has been framed as an adult competence necessary for functioning within a contemporary food system. With this lens Ronto et al. (2016) have argued the importance of including food literacy in secondary schools is that young adults are able to develop healthier food patterns. In a similar vein Slater et al. (2018) have written about the value of young people developing their food literacy as a way to not only have food preparation skills but also to understand the interplay of food with their personal and ecological health.

Food Literacy is a term that is employed for specific purposes. Perry et al. (2017) utilise it in context of public health nutrition as a way to evaluate food literacy intervention and healthy diets. Taking a broader perspective Bellotti (2010) has argued that food literacy reconnects food consumers in largely urban settings with farmers. In this perspective food literacy refocuses food systems from productivity towards a more integrated approach that desegregates food from sustainable agriculture, health and social equity.

Clearly food literacy is a term that is being interpreted and utilised in a myriad of ways. So what follows is more extensive analysis of food literacy. There is a review of the development of the term and associated definitions over the past twenty years. There is also a closer review of four models of food literacy that demonstrate how identified interconnections and dependencies can be visualised. The intention of this paper is not to undertake an extensive review rather to provide a common ground for discussions and debates about food literacy.
Defining Food literacy: An Historical Overview

First provided in 2000, Nutbeam’s definition of health literacy was based on the work of critical literacy theorists Freebody and Luke (1990). Nutbeam acknowledges the multiplicity of (health) literacy in that he posited the need for basic/functional literacy, communicative/interactive literacy and critical literacy (Nutbeam, 2000). Food literacy has been modelled on Nutbeam’s definition of health literacy (Cullen et al, 2015; Kolasa et al. 2001; Velardo, 2015) as has nutrition literacy (Velardo, 2015). Using a health promotion perspective health literacy is offered as the overarching concept of which food literacy is seen as a subset (Krause et al., 2018). Nutrition literacy is considered to be a focused subset of food literacy. These literacies can be seen as a set of Russian nesting dolls devolving through specialised understandings from health to food to nutrition (Velardo, 2015). In her alignment of health, food and nutrition literacy, Velardo (2015) draws on Nutbeam’s three types of literacy to discuss similarities and nuances. In writing about critical nutrition literacy, Velardo noted the importance of “connections between food, society, and health by considering the wider impacts of individual and community food choices” (p. 387) followed by a need to consider food policies and practices and where necessary, advocate for change.

The first paper to use the term food literacy can be found in Kalosa et al.’s (2001) paper entitled Food literacy partners program: A strategy to increase community food literacy. In this paper, the authors describe how a group of dietetic professionals worked with people living locally to increase the capacity to provide credible nutrition information to the wider community. Building on a definition of health literacy provided by the American Joint Committee on Health Education Standards in 1995, the authors overwrote the definition removing health and substituting food and nutrition to frame food literacy as:

*the capacity of an individual to obtain, interpret and understand basic food and nutrition information and services as well as the competence to use that information and services in ways that are health enhancing (Kolasa, Peery, Harris, & Shovelin, 2001).*

There have been successive efforts to define food literacy. In one example, Brooks and Begley define food literacy as “practical skills to achieve dietary guidelines” (2014, p. 158). In their paper they argue for the importance of food literacy as a way to empower young people in their physical health, that also connected to their social and emotional health. In their research, Brooks and Begley (2014) undertook a scoping review of peer reviewed literature and program reports on food literacy programs for adolescents between 2002 and 2012. The intention was to provide a summary of recommendations to be used in adolescent focused food literacy programs. Key selection criteria for sampling included “planning, implementation, evaluation or outcomes of an intervention” (p. 159). In their conclusion Brooks and Begley note that there is both an insufficient body of literature that evaluates food literacy programs aimed at adolescents and their associated behaviour change. This is in part not surprising as food literacy as a term first appeared in the literature in 2001. The food literacy attributes that the authors ascribe as being elements of food literacy included growing and selecting food, menu planning, food preparation and cooking skills and nutrition knowledge. With this in mind it is evident that the focus is on the food aspect of food literacy for behaviour change with no attention to the literacy aspect of the term.
Vidgen and Gallegos (2010) have remarked that while there had been attempts to measure food literacy, the term itself has been rarely utilised but noted three definitions that had emerged at that point. They provided the Kalosa et al. (2001) definition together with two additional definitions:

the ability to organise one’s everyday nutrition in a self-determined, responsible and enjoyable way (Socrates-Grundtvig, 2006)

knowing where our food comes from; knowing what happens to it, how to cook it, and how to prepare it (Stanton, 2009). (p.2)

Vidgen and Gallegos’ review took notice of how the definitions that were emerging focused on meeting nutritional recommendations while critiquing the failure to better understand food at an individual and communal level and using it to better meet needs in a contemporary social context. They also commented on how food literacy was absent when food and nutrition systems were being conceptualised.

In a subsequent article Vidgen and Gallegos (2014) described how food literacy was being increasingly used both explicitly and implicitly in policy documents, in research and descriptions of practice without a shared meaning of the term. In the research detailed in their article, Vidgen and Gallegos asked food experts to identify necessary food knowledges and skills and define food literacy. They also asked a group of young people aged 16-25 years about their food knowledge and experiences. From this body of work Vidgen and Gallegos constructed their own definition.

Food literacy is the scaffolding that empowers individuals, households, communities or nations to protect diet quality through change and strengthen dietary resilience over time. It is composed of a collection of inter-related knowledge, skills and behaviours required to plan, manage, select, prepare and eat food to meet needs and determine intake (2014, p. 54).

With the intention to create an action-oriented food literacy model to support food security at a community level, Cullen et al (2015) developed a definition of food literacy. in their scoping review they considered the definitions provided above, as well as others. The intention to generate their own definition was based on a closer alignment with their experiences in community food security and health promotion in a way that other definitions did not. As a result of their process the authors came to a shared view that:

Food literacy is the ability of an individual to understand food in a way that they develop a positive relationship with it, including food skills and practices across the lifespan in order to navigate, engage, and participate within a complex food system. It’s the ability to make decisions to support the achievement of personal health and a sustainable food system considering environmental, social, economic, cultural, and political components. (p. 143)

This definition addresses criticisms of earlier definitions being too closely structured around individual behaviours and little to no consideration of the social context or food systems sustainability (Renwick & Powell, 2019; Sumner 2013, 2015).

Another scoping review by Truman et al. (2017) built on Cullen et al.’s (2015) work and was an attempt to address what was seen as limits in the selection of literature. The authors aimed to identify the scope of academic work that addressed food literacy, and how the term was conceptualised. They conducted a thematic analysis of food literacy as presented in 67 articles, revealing six themes – skills/behaviour; food/health; culture; knowledge; emotions and food systems. These themes were further
analysed to determine if the associated activities were purely functional, critical or a combination of both. From this Truman et al. noted “a movement away from a “health literacy” lens focused on the individual, and towards a critical food studies lens” (p. 370).

In a similar vein Perry et al. (2017) did their own scoping of what constitutes food literacy. They also examined peer reviewed articles and reports that had been published between 2005 and 2016. In particular the authors were looking to identify food literacy attributes and descriptors as a way to develop a measurement tool that could be used for evaluation of food literacy interventions.

Definitions of food literacy or variations on existing ones are still emerging (Renwick & Powell, 2019) together with differing views on what to measure (Truman et al. 2017). The scoping reviews considered in this paper demonstrate that food literacy was a term that was initially slow to emerge but is increasingly being referenced. This emergence and growing utilisation of the term food literacy is evident when reading through the scoping reviews. For example, Cullen et al. (2015) accessed six articles published prior to 2010 and sixteen between 2010 and 2015. Yet only two years later Truman et al. (2017) accessed 11 articles that were used in Cullen et al.’s paper and a further two published before 2010, nineteen between 2010 and 2014, and seven published in 2015 that included Cullen et al.’s paper.

There is still some settlement needed before there is a widely accepted understanding of food literacy. There have been inroads into understanding “food” within the term but far less about the literacy component. While not explicitly evident in the body of work that is food literacy, recognising the perspectives of literacy scholars could bring additional insights to food literacy scholarship. As Renwick and Powell (2019) have advanced, literacy is a social skill that enables exchange within daily life and community contexts and food is a key element within those interactions. Thus, the conceptualisation of food literacy is a challenging task in that it draws from a number of fields, a range of interactions and the interplay of different systems. With this in mind a number of models of food literacy have been developed as a way for scholars to represent their interpretations in a visual way.
Visualising food literacy

While the term food literacy initially seems self-evident, it actually requires deeper understanding about connected and interconnected concepts and is inherently complex. As noted by Cullen et al. (2015), the literature is replete with scholars conducting primary research who have subsequently developed conceptual models in order to demonstrate how they view the term “food literacy beyond a basic definition.” (p. 141). Vidgen and Gallegos (2014) provided a diagram (Figure 1) representing the capacities included in food literacy that not only identified eleven distinct components within four themes but also how they aligned thematically. Within this model practical skills are primary with the components representing the associated knowledges and understandings. Personal behaviours and links to health are evident, and there is reference to the food supply and a final note that recognises the social importance of food.

Figure 1 The eleven components of food literacy
Source: Vidgen and Gallegos 2014

Figure 2 Food literacy conceptual model.
Source: Perry et al. (2017)

Perry et al. posit that their scoping of food literacy attributes offers what they call ‘scaffolding’ that they aimed to use in their research work initially with young people and noted that the attributes would apply to anyone across the lifespan. The peer reviewed articles and reports used in this research were largely within a biomedical and health promotion paradigm. Without exception the materials were firmly focused on food rather than literacy leaving the literacy aspect to be implied.
Positing food literacy as a communal concern Cullen et al. (2015) built on their defining of food literacy to identify reporting of practice-based programs published between 2000 and 2013. As with Brooks and Begley’s (2014) scoping, Cullen et al. had to make some assumptions about what they used as criteria to determine if the projects could be categorised with a food literacy intent in those reported on prior to 2015. Aligning their review of the literature with their definition Cullen et al. posited that “teaching skills on how to cook, shop, and read nutrition labels” (p. 141) were not sufficient attributes in and of themselves and that knowledge about food systems, including communal efforts “to create a safe, equitable, and healthy food supply” (p. 143) was equally important.

Arising from this work the authors identified an action orientated model (see figure 3) that accounted for both community food security (CFS) and food skills. They argue that “Food literacy exists as a confluence between two spheres, CFS and food skills, with each sphere being linked to the other in complex ways, while interacting to increase the overall health and well-being of individuals” (p. 143). It is presented as one way to evaluate the possibilities for food literacy in community settings both by community members and community dietitians. This model provides explicit reference to the importance of consideration for global foods systems within the framing of food literacy. However, as in the case of the previous two examples this model also privileges the work around food and makes no reference to what literacy means in this context.

Figure 3 Food Literacy Framework for Action Source: Cullen et al. 2015.
And finally, the need to address the literacy in food literacy is argued by Renwick and Powell (2019). In their paper they draw on a range of relevant topics covering garden- and food-based activity, relational experiences as the result of food, food systems through to food sovereignty. From this framing of food literacy, they argue that “food literacy involves developing the knowledge, critical thinking, analytical, and communication skills necessary to join communities surrounding food systems and the social relations in which they are embedded.” (p. 29) In this concept of food literacy, there is capacity to join in collective efforts to make progress toward food sovereignty goals and food systems transformation.

Renwick and Powell’s framing of food literacy draws on modeling of critical literacies (Renwick, 2017), where three types of literacy are evident – operational, cultural and critical (see figure 4). With this model “food literacy involves developing the knowledge, critical thinking, analytical, and communication skills necessary to join communities surrounding food systems and the social relations in which they are embedded” (Renwick & Powell, 2019, p.29). For food literacy to be effective it must be understood as being ‘situated’ in some social context.

**Figure 4 Critical Literacy Source: Renwick (2017)**

**Food literacy – what now?**

As our understandings of food literacy continues to develop there appears to be a growing tension between not only what the term food literacy means but also what is being done in its name. The use of food literacy as a term spans over two decades and perhaps now is a suitable time to consider what food literacy offers as a way to understand food and food systems in the C21st.

In order to support the continued evolution and development of the term food literacy it is opportune to take time to consider underdeveloped or missed ideas within the debate. The following question offer some possibilities for further engagement.

- Is food literacy possible if the focus is only on food without the literacy aspect?
- Given the focus on behaviour change within health promotion is there a capacity to develop both individual and communal agency through food literacy?
What does food literacy look like at a time of climate change?

References