

# LINQ



PEOPLE INSIGHTS

# 1: Information Flow Modelling

The LINQ® Platform enables organisations to understand how information flows fuel their business; and gain insights about how improving Information Supply Chains can be a catalyst for business transformation.

You might be surprised that information flow has this relationship to transformational potential. It is useful to think about companies that have transformed entire industries by mastering information flow:

**Uber®** is transforming transportation by streamlining the Information Supply Chains that connect drivers to customers. By reducing the friction of the information flow, the costs of a traditional taxi operation's information supply chains have been slashed to the point of eliminating the centralised model (the taxi communication centre) and replacing that with a peer-to-peer (customer to driver) information supply chain.

**Amazon®** is transforming retail by utilising a highly effective information supply chain that directly connects the customer with the supplier. In this case, a central information supply hub (Amazon's website) allows customers to access an almost limitless catalogue of goods and create a fast and reliable order process.

**AirBNB®** is revolutionising the accommodation industry by utilising a peer-to-peer information supply chain to connect customers and accommodation providers. The trust that has traditionally been created by travel agents or letting agencies has been replaced by a two-way review information flow that establishes a direct trust between supplier and consumer.

The LINQ Platform now allows your organisation to understand and then master your own information flows. This isn't a technical challenge; this is a change challenge. By presenting information flow using powerful visualisations, non-technical executives can take a leadership role in improving these information supply chains and embarking on meaningful business transformation.

There are many parallels between the LINQ Platform and the Toyota Production System (TPS). TPS revolutionised the manufacturing process by identifying and mitigating seven areas of wastage in the car production process.



**Overproduction**  
*largest waste*



**Time on hand**  
(waiting)



**Transportation**



**Processing**  
itself



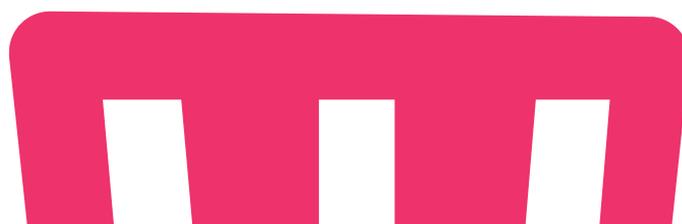
**Stock at hand**



**Movement**



**Making defective**  
products



Your organisation manufactures knowledge – your Information Supply Chains are converting data into actionable insights to better serve your customers, meet your regulatory commitments and compete effectively in the marketplace. TPS revolutionised manufacturing because it made Toyota (and then all manufacturers that adopted this approach) 50% more productive.

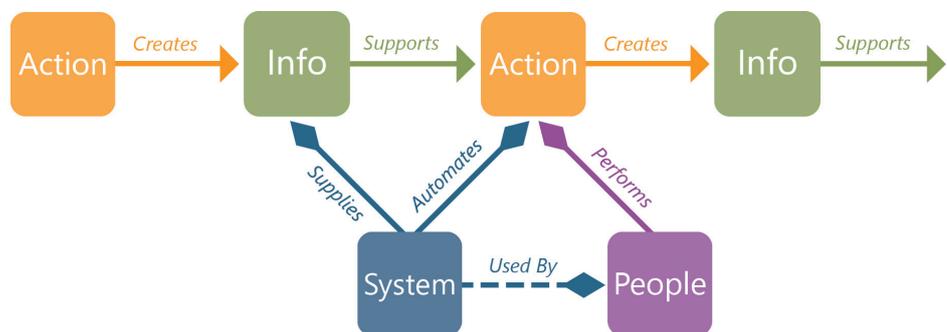


By mastering information flow, LINQ offers the opportunity to make your Knowledge Manufacturing 50% more productive. Imagine how much happier your customers will be, how compliance can become easier and how much more competitive you'll be with that boost in effectiveness.

A key aspect of the productivity boost provided by TPS is the visibility that manufacturing workers have of their role in the production flow. LINQ provides a similar visibility to knowledge workers who are enabling the information flow. This white paper focuses on your knowledge workers – the people who are enabling the flow of information through your organisation.

## 2: The LINQ Model

LINQ depicts Information Flow in terms of Actions that transform Information. A Capture Action creates Source Information which is transformed by an Action producing Information... Action... Information... Action... until Output Information supports a Business Outcome. This chain of Actions and information forms an Information Supply Chain and it is important that information flow is as efficient and effective as possible.

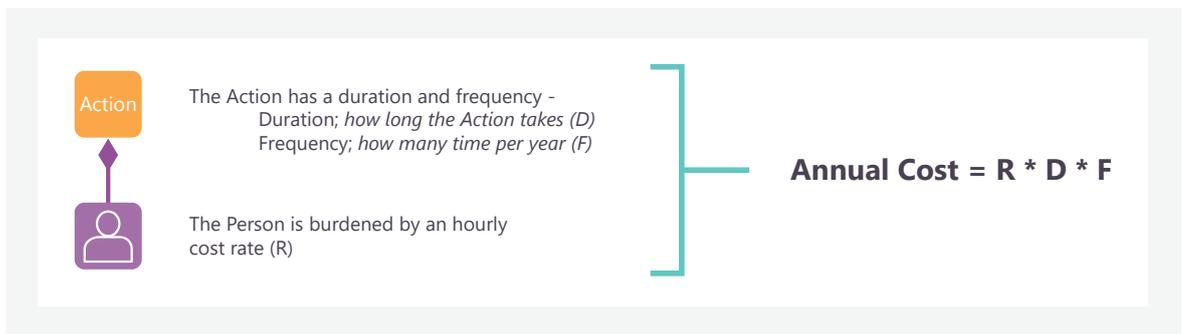


In the LINQ model, People and Systems support the flow of Information. People perform Actions and Systems are used by People to perform Actions, Systems automate Actions and Systems provide Information.

### 3: People in a Information Supply Chain

In the LINQ model, People perform Actions and in so doing, LINQ records how their capacity is being utilized. It is important to appreciate what the 'People' node represents in LINQ. It is not a Person, rather it is the utilisation of a person's time taken to perform an Action. One person's overall utilisation will typically be represented by multiple People nodes in a LINQ diagram.

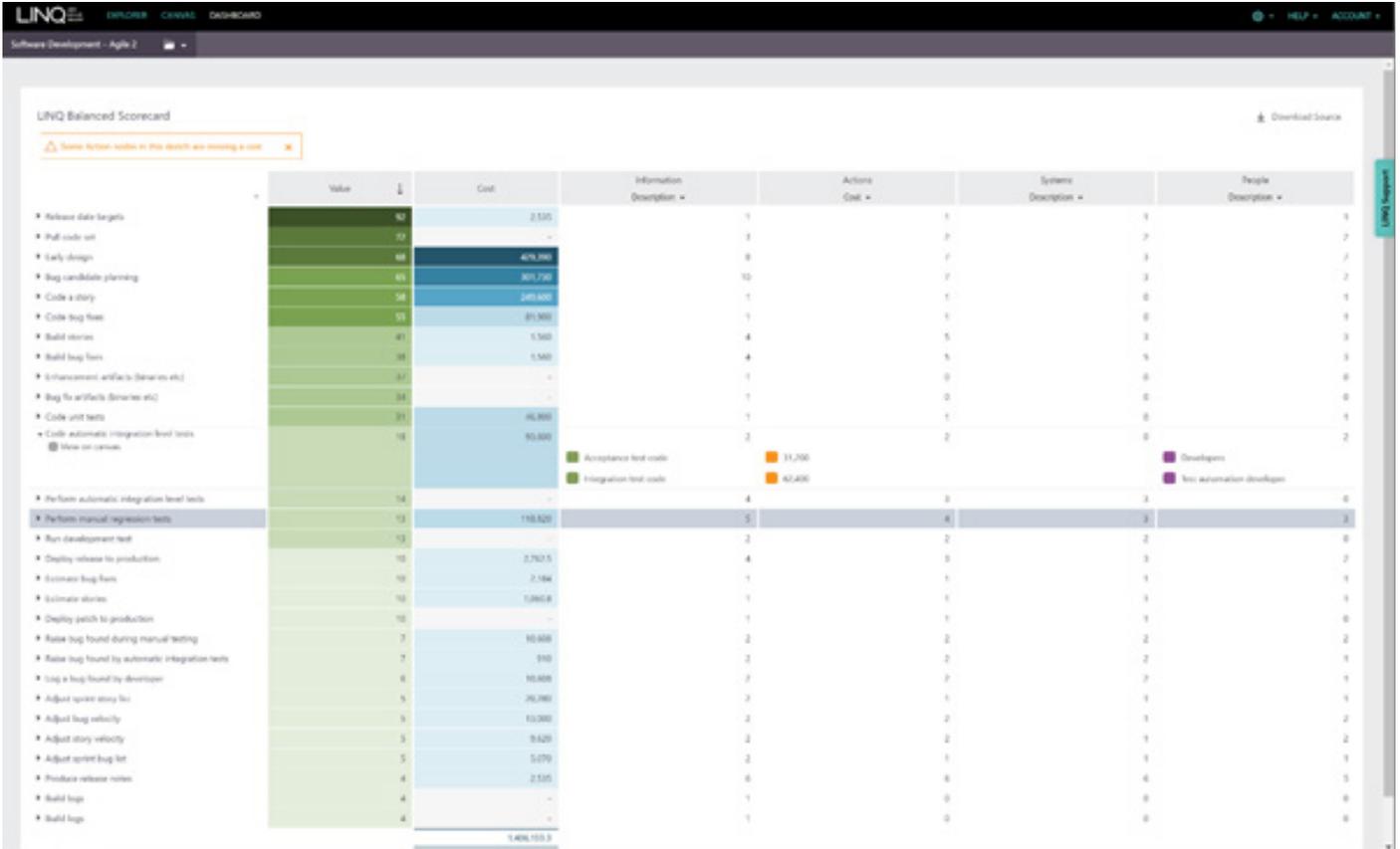
In a typical organisation, about 80% of the costs in an Information Supply Chain are incurred as People perform Actions. LINQ calculates these costs by multiplying the person's hourly cost by the frequency and duration of the Action being performed.



The Frequency and Duration and where appropriate, the specific time of the Action are recorded using this Dialogue:

The screenshot shows two dialog boxes for configuring an action. The top dialog, titled 'ACTION DURATION', has input fields for Days (0), Hours (0), Minutes (15), and Seconds (0). It also has 'Start Time' (9:00 AM) and 'End Time' (10:00 AM) dropdowns. Below these fields, it states 'Action duration is 15 minutes (0.2500 hours)'. The bottom dialog, titled 'ACTION FREQUENCY', has a vertical list of frequency options: Daily, Weekly, Monthly, and Yearly. The 'Daily' option is selected. To the right, it shows 'Occurs 1 time(s)'. Below this, there are radio buttons for 'Every workday' (selected), 'Specific days', and 'Every day'. Under 'Specific days', there are checkboxes for Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, and Sunday. Under 'Every day', there is an 'Every 1 days' option. At the bottom, it states 'Action occurs 1 time every workday (annually 260 times)'. 'OK' and 'CANCEL' buttons are at the bottom right.

This annualised cost is recorded against the Action node and is aggregated at the Value LINQset<sup>1</sup> level so that insights about value and cost can be explored in the LINQ Balanced Scorecard Dashboard:



In this example, a good alignment of Value and Cost is seen – the highest costs are lining up with the highest value. The Value LINQset ‘Code automatic integration level tests’ is expanded to understand the Action / People pairs that are contributing to a high cost against a comparatively low value.

## 4: The People Dashboard

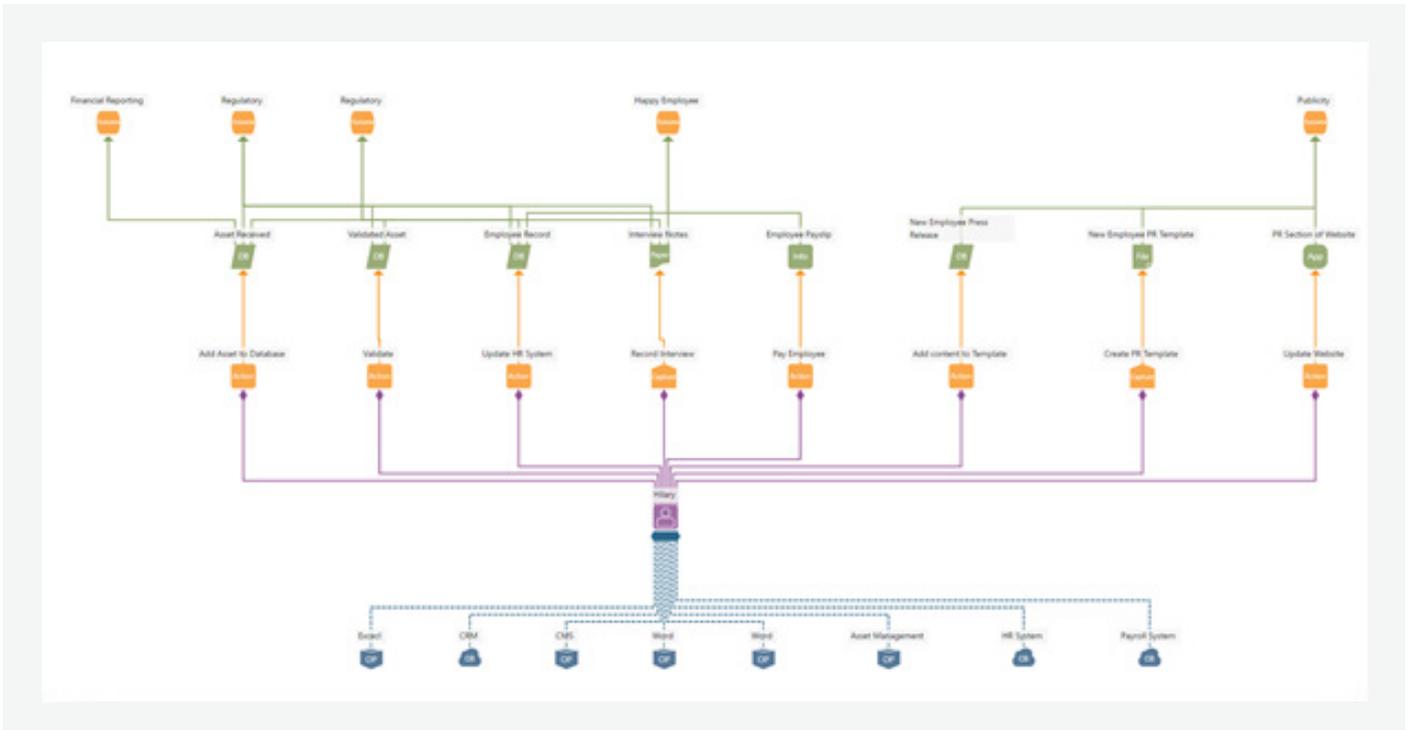
The People Dashboard has been introduced to add new insights about the contribution People make to an Information Supply Chain.

As People nodes are added to the LINQ canvas, they form People-Action pairs. This inevitably means that a single person will be represented many times in the canvas – remembering that this is by design since the People node represents the part of a person’s overall capacity which is performing an Action.

<sup>1</sup> Value LINQsets group like values in a supply chain.

## 4.1: The People Pivot

The first insight provided by the People Dashboard is a holistic understanding of how a person contributes to Information Flow within an organisation:



In this diagram, the Person (Hilary in this case) becomes central and directly above are the Actions performed by Hilary – which constitutes a job description and detail about Hilary’s overall utilisation. Above that row of Actions is a row showing the Information which is produced by Hilary; an indication of her deliverables. Above this is a row containing the ultimate Business Outcomes supported by this Information. This provides visibility about the purpose of the Hilary’s work. In the row below the person are the Systems used by Hilary. This provides insight about Hilary’s technical training requirements.

This view becomes invaluable when a person’s role is affected by change. The current state of a person’s role is summarised and can be quickly compared with their role in a potential future state. This quick comparison between ‘now’ and ‘next’ can help communicate the benefits of change and can get user buy-in to change before it happens.

LINQ also ensures that all impacts of change are understood early in the change process. If a role is to be disestablished, the consequences in terms of affected outcomes are clearly understood. One option that can be explored is to reduce the frequency of Actions which may be more palatable than cutting the Actions altogether.

There is also the potential of giving people in an Information Supply Chain access to this Dashboard. Not only does this help them understand the context of their work, they also begin to understand the people upstream and downstream of them in the information flow.

In this respect, LINQ does for your knowledge workers what the Toyota Production System does for manufacturing workers; provides visibility that enables the workers to suggest process improvements. This 'innovation from anywhere' approach was a key aspect of the ongoing productivity gains of the Toyota Production System.

## 4.2: Understanding Bottlenecks

The People Dashboard contains the summary table below:

Action Summary	Value	Duration in hours	Frequency times per year	Annual Hours	Annual Costs	Upstream Actions	Downstream Actions
Record Interview	28	1.75 <small>1 hour, 45 minutes (1.7...)</small>	12 <small>12 times per year</small>	21	2,100	0	5
Update HR System	28	1 <small>1 hour</small>	12 <small>12 times per year</small>	12	1,200	1	4
Add Asset to Database	27	0.25 <small>15 minutes (0.2500 hou...)</small>	2,340 <small>2,340 times per year</small>	585	58,500	1	5
Validate	20	0.25 <small>15 minutes (0.2500 hou...)</small>	1,820 <small>1,820 times per year</small>	455	45,500	2	3
Pay Employee	8	3 <small>3 hours</small>	26 <small>26 times per year</small>	78	7,800	4	0
Add content to Template	6	1 <small>1 hour</small>	12 <small>12 times per year</small>	12	1,200	1	1
Update Website	6	0.5 <small>30 minutes (0.5000 hou...)</small>	12 <small>12 times per year</small>	6	600	2	0
Create PR Template	6	1.25 <small>1 hour, 15 minutes (1.2...)</small>	1 <small>1 time per year</small>	1.25	125	0	2

The last two columns list the 'upstream' and 'downstream' Action node counts. This provides insights about the potential for the person to be a bottleneck – a situation where too much work is queued up upstream of them and work downstream is limited by their productivity. A person at the start of an Information Supply Chain isn't blocking any upstream work and a person at the end of an Information Supply Chain isn't blocking any downstream work. But a person in the middle of an Information Supply Chain (in the first row above) can be a bottleneck.

This provides another prioritisation insight since flow optimisation theory points out that investing upstream of a bottleneck merely makes the bottleneck worse; investing downstream of a bottleneck achieves no overall productivity gain (because the bottleneck remains the constraint); investing at the bottleneck is the best way of increasing overall productivity.

## 5: The Value of People

Care should be taken when interpreting a LINQ sketch to ensure that the value of people in an Information Supply Chain is understood. At first sight, people can appear as just a cost. LINQ can support more sophisticated insights about the value of people's work in enabling information flow.

These Work Value Indices can be used to model the types of value that people bring to an Information Supply Chain. When human value is understood, it becomes possible to increase the effectiveness of information flow by moving people from low value roles into high value roles. Over the coming months, LINQ will be productising Work Value Indices. Meanwhile, the imminent release of Custom Attributes will allow the recording of work value.

Custom attributes can be used to record a person's value in terms of Judgement Value and Engagement Value. Although custom attributes can be used to record any property in the way that best suits a customer, we suggest recording Work Value as a 0-10 index score (which will align with LINQ's productization plans).

### 5.1: Judgement Value Index

Many actions require a high level of human judgement. That's particularly the case with assessment, inspection or comparison actions where wisdom needs to be applied to get the best result.

This Judgement Value is recorded against the Action node (because it's the action that requires judgement; the Person may require a skill to perform that action) in terms of 'Automation potential' with a score from 10 (high potential to be automated) down to 0 (no potential to be automated). A score of 5 might represent a task that is automatable with today's Artificial Intelligence (AI) (such as IBM's Watson services). A score of 3 would represent a task that might be automatable in five years given the pace of AI development.

Using this approach allows an Information Supply Chain to be assessed in terms of automation potential now and in the future. This allows an organisation-wide understanding of AI potential over different time horizons.

LINQ will help organisations develop AI strategies to better understand the potential for AI to move people from today's roles in an information flow to roles where engagement brings broader value to an organisation.

## 5.2: Engagement Value Index

In many cases, people perform a valuable engagement role in an Information Supply Chain. This is particularly the case as information is captured – good engagement at this point can clarify needs and avoid later rework. Engagement value is also important in customer-centric roles such as support and customer success.

The Engagement Value is recorded against the Action node rather than the Person node in terms of automation potential. A 10 is a role with little or no engagement value (and therefore has high automation potential). A score of zero is a role with no automation potential (i.e. a very high engagement value).

Using this approach helps move people from mechanistic, easily automatable roles into roles where engagement value is higher. This might involve stepping back from failed attempts at automation; for example, automated customer service systems which tend to frustrate customers.

## 6: The Future of LINQ People

The People Dashboard is LINQ's first step towards providing a rich range of people insights. We plan to release the LINQ People solver pack in the future that will add a range of new capabilities:

- The precise modelling of people capacity versus utilization
- Connections to HR systems that will provide a current state of people and teams
- Reporting on Current to Future state HR changes
- Team-based reporting

We actively seek customer views on how LINQ handles 'People' today and what you would like to see in the future. Please make your voice heard by submitting your ideas at <https://support.linq.it>