THE TECHNOLOGY STEWARDSHIP PROJECT

An International Collaboration

Introduction to Technology Stewardship

Sampler Workshop

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Create a campaign goal

Small group activity

Selected worksheets from the course workbook

The course workbook is available as an Open Educational Resource

https://tinyurl.com/tech-stewardship-course

Introduction to Technology Stewardship - Sampler Workshop

Technology Stewardship

Tech stewards most often are members of the community they serve. They just happen to pay attention to technology issues in the community's life.

-Wenger, E., N. White, J. Smith (2008). Digital Habitats: Stewarding Technology for Communities. CP Square. (p.25)

Technology Stewardship is a community leadership role. People take on the role for several reasons (often more than one):

- No one else is doing it
- Satisfaction in serving the needs of the community of practice
- Establishing and helping to realize a vision for the community
- Personal learning and growth
- Professional development and advancement

The Tech Steward role can be a formal responsibility or part-time and voluntary. Sometimes, it is an ad hoc response to address a specific problem or opportunity. Other times, it is a longer-term and strategic commitment on the part of the community.

Tech stewards adopt an ACTION LEARNING MINDSET that incorporates four streams of activity in the role:

- Make the community aware of ICT tools and platforms
- Help the community to envision how ICT can be used to achieve its goals
- Help the community experiment and gain experience with ICT
- Help the community to integrate effective ICT choices into everyday use

These are the four guiding principles of technology stewardship:

Vision before technology
what are the challenges and aspirations of the community?

Keep it simple
what is user friendly and affordable?

Understand failure & build on success
what will success look like? failure offers important insights

Use the knowledge around you
Tech Stewardship is a team effort—who can help you?

Community of Practice

The Tech Stewardship approach focuses its efforts on communities of practice as the unit of engagement and transformation. Leadership and social influence are important factors in changing practices related to ICT choice.

> Communities of practice are groups of people who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise in this area by interacting on an ongoing basis.
>
> -Wenger E., R. McDermott, W. Snyder (2002). Cultivating Communities of Practice. Harvard Business Press. (p.4)

You are likely a member of a community of practice but may have never thought about it before.

Consider the statements in the following table. To what extent do they reflect your interactions with others in your field? Can you identify a community of practice to which you belong?

Indicators of a CoP	With who? What about? How often? Where?
We meet regularly on topics of mutual professional interest	
We share information about current events and new practices	
Conversations happen easily on professional subjects	
We share a common set of basic knowledge and skills	
We share stories, inside jokes, and jargon	

My community of practice: _____

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Community Consultation

Following the principle *Vision before Technology*, the Tech Steward consults with the community members to discuss challenges and opportunities that ICT might be able to address.

Not all problems are suited to an ICT solution, and sometimes, this is only discovered during or after a campaign.

Various participatory methods for community consulting exist, and you may already have experience with some. In this course, we use the Problem/Opportunity Tree.

Problem Tree Method

Begin at the trunk: what is a problem that our community of practice is facing right now? Write down a list of problems if there is more than one that comes to mind.
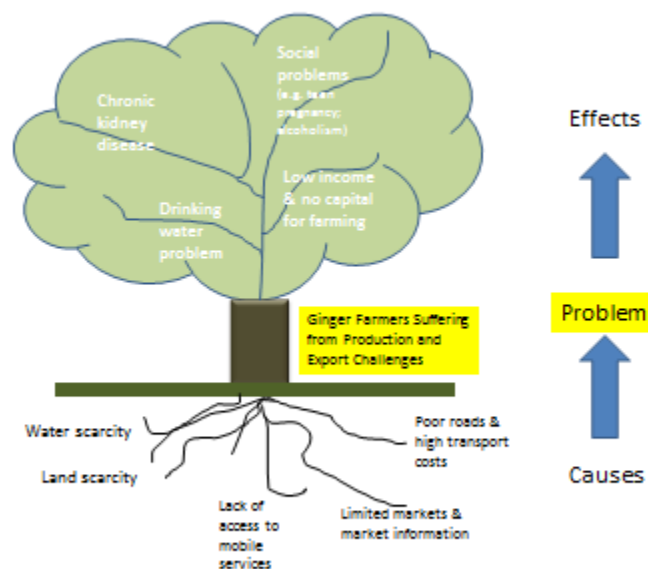
Go to the roots: what are the causes, situations, and factors that have led to the problem? Why does the problem exist? There may be more than one cause. Use the 5-Whys worksheet to get to the root cause(s).

Then go to the branches: what are the effects of the problem? How does your community experience the problem in daily routines, practices, or group processes?

5-Whys Worksheet

Describe the problem:

```



```

⬇ *focus on one contributing factor to the problem and drill down*

1. Why is this happening?

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```

⬇

2. Why is this happening?

```



```

⬇

3. Why is this happening?

```



```

⬇

4. Why is this happening?

```



```

⬇

5. Why is this happening?

```



```

Note: If your answer is something you cannot control, go back to a previous level.

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Opportunity Tree Method

Having identified the problem, its causes, and its effects, we then consider the opportunities available to the community for making changes.

Start with the branches: What is our vision for the future? What outcome do we want to experience in our daily routines, practices, and group processes?
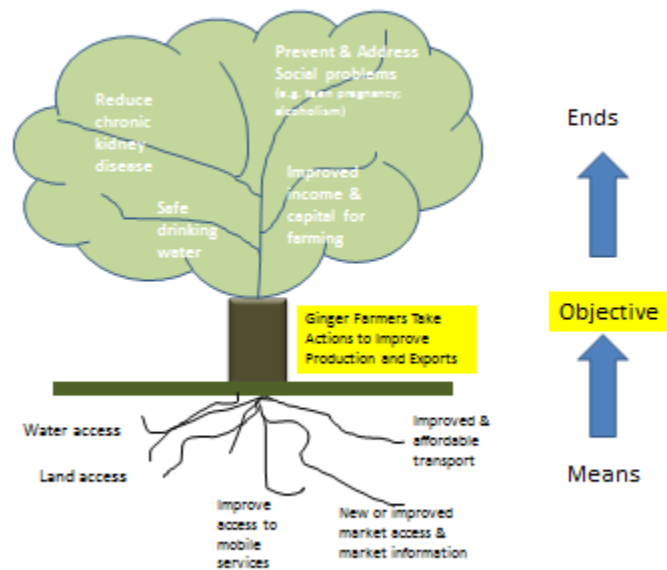
Go to the roots: What actions, changes in practice, routine, or situation will need to take place to help us achieve our objective? What role can ICT play in helping us to achieve the objective?

Go to the trunk: How do we positively restate the problem? What is the objective and outcome we are trying to achieve with a change in practices and routines?

5-Hows Worksheet

Describe the vision:

```

```

↓ *focus on one contributing factor to the vision and drill down*

1. How do we get there?

```

```

↓

2. How do we get there?

```

```

↓

3. How do we get there?

```

```

↓

4. How do we get there?

```

```

↓

5. How do we get there?

```

```

Note: What are the actions can you control?

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Root cause analysis using 5-whys 'fishbone' (Ishikawa) diagram

Step 1: discuss and agree on a problem statement. Write it at the mouth of the fish.

Step 2: ask 'why' this happens and list possible reasons for the problem. Place one reason beside each arrow in the body of the fish.
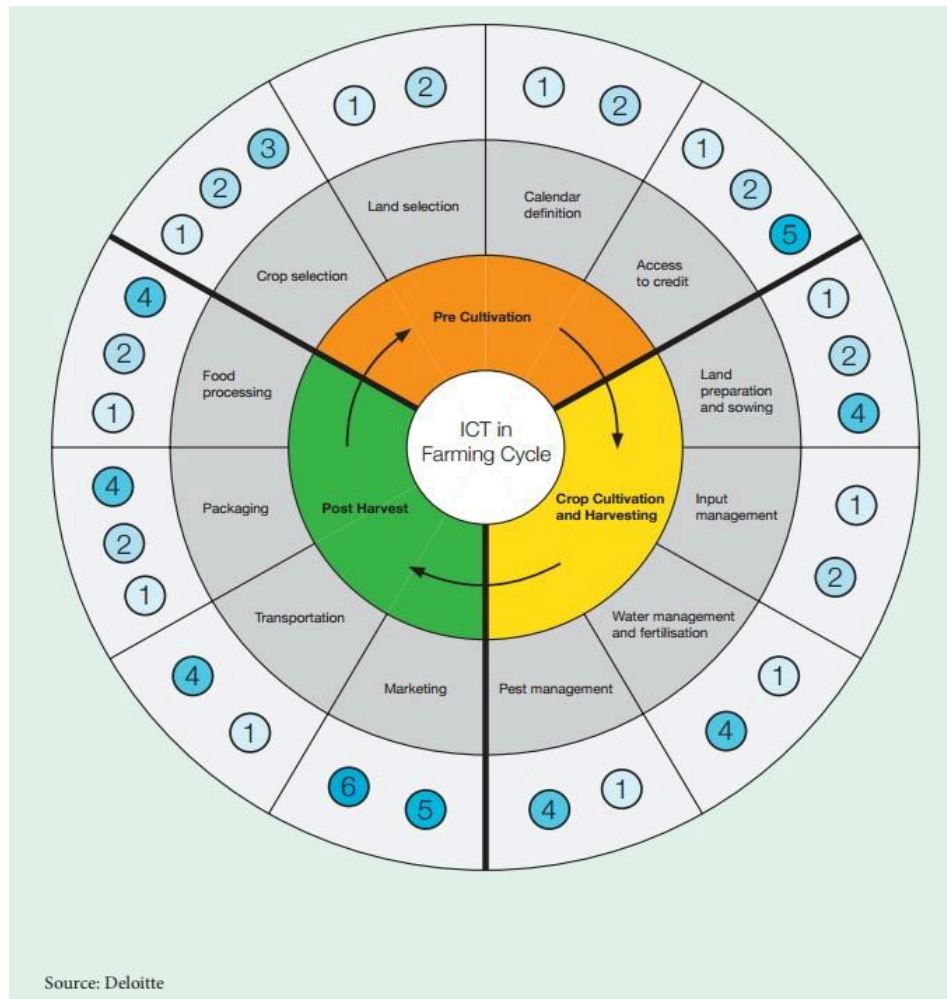
Step 3: Can these reasons be placed into a more general problem category? Write it in the box belonging to the arrow.

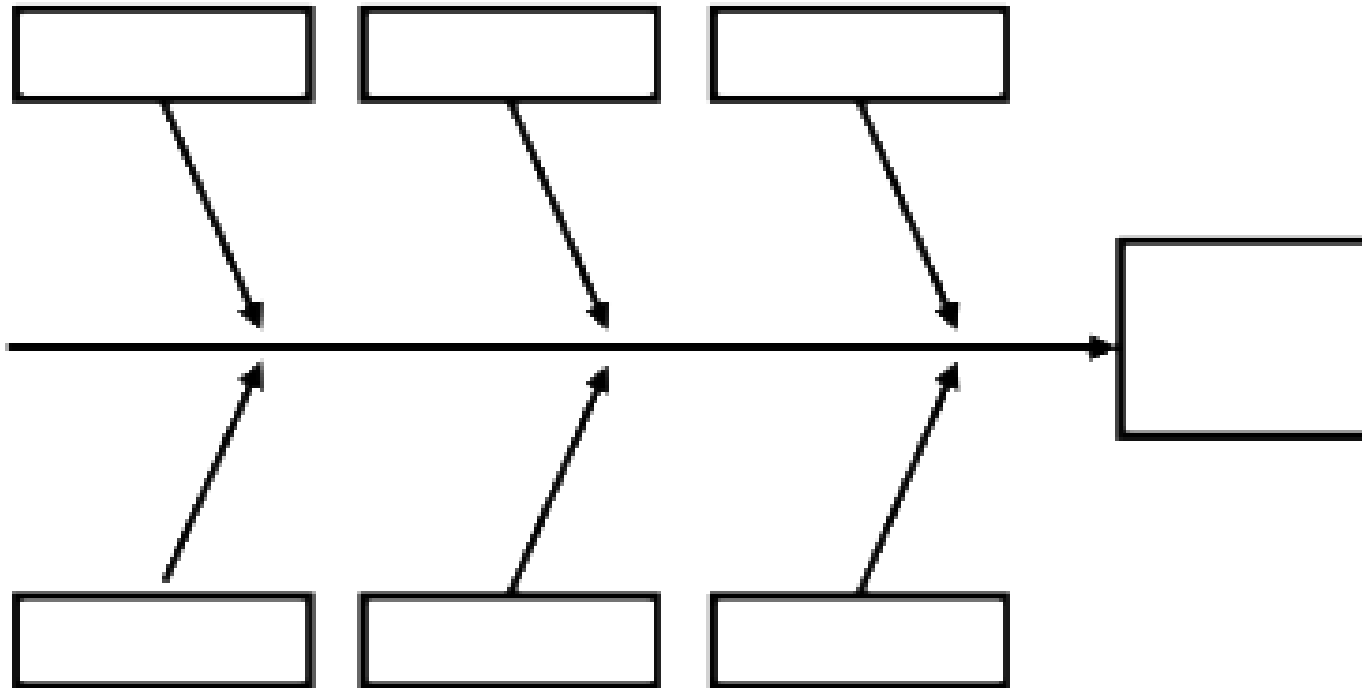Here is an example of how the diagram can identify root causes of a problem:

5-whys 'fishbone' diagram

Root causes

| Accessibility | Accessibility | Scheduling |

Members prefer individual consultations

Members have no transport

Members are unaware

Low attendance at meetings

Too many meetings

Members are not interested

| | Scheduling | Agenda |

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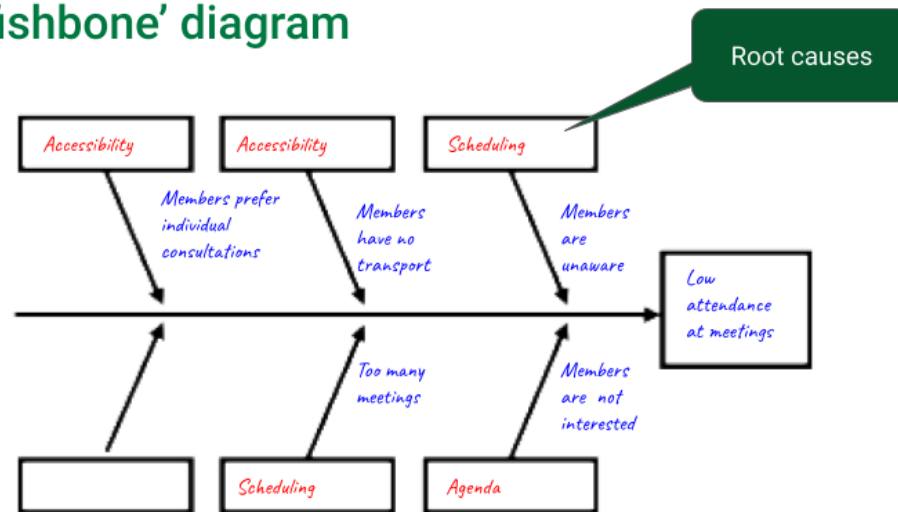
You can use this diagram to help you identify a problem facing your Community of Practice.

Source: Deloitte

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Create your own fishbone diagram to identify the root causes of the problem.

Rank your actions by priority

Review your problem tree or fishbone diagram results. What categories did you identify as the root causes? What role can information and communication play in addressing one or more of these root causes?

The following ranking table will help us to translate ways and means into *communicative actions* for the community of practice.

Rank each type of action from 1 to 5 (5 being most relevant or important) to the steps identified on your "5-hows" sheet.

Priority Level (1 least – 6 most)	Action	Variants	Activities/Tools	Metrics
Meetings 1　2　3　4　5 ☐ ☐ ☐ ☐ ☐	We need better ways to organize and hold meetings	☐ Face-to-face/ blended ☐ Online synchronous ☐ Online asynchronou	-Scheduling -Announcements -Presentations -Comments -Notetaking -Participant polls -Breakouts -Recording	*Attendance *Participation *Outcomes *Cost savings
Conversations 1　2　3　4　5 ☐ ☐ ☐ ☐ ☐	We want to support for open-ended discussions	☐ Single-stream discussions ☐ Multi-topic conversations ☐ Distributed conversation	-Single topic threads -Multiple threads -FAQ area -Tagging -Rating ("like") -Subgroups -Private chats -Translation -Archiving -Search	*Contributions *Reponses *Contributors *Perceived usefulness
Projects 1　2　3　4　5 ☐ ☐ ☐ ☐ ☐	We want to organize and manage a project	☐ Practice groups ☐ Project teams ☐ Instruction	-co-authoring -collaboration -subgroups -calendar -project mgmt -instruction -announcements	*Engagement *Impact *Cost-effectiveness *Perceived usefulness
Content 1　2　3　4　5 ☐ ☐ ☐ ☐ ☐	We want to gather and curate content/data	☐ Library ☐ Blogging ☐ Cataloguing ☐ Data gathering	-uploading files -sharing files -viewing files -commenting -tagging, rating -curation -subscription/alerts -archiving -search -analytics	*Contributions *Usage *Cost-effectiveness *Perceived usefulness

| Access to Expertise 1　2　3　4　5 ☐　☐　☐　☐　☐	**We want to access expertise easily and quickly**	☐ **Questions and requests** ☐ **Expert advice** ☐ **Shared problem solving** ☐ **Knowledge validation** ☐ **Apprenticeship/ mentoring**	-simple Q&A -expertise search -FAQ -response rating -commenting -polls- -group messaging -private messages -following an expert -links to resources -search -automated responses	***Usage** ***Response** ***Timeliness** ***Cost effectiveness** ***Perceived usefulness**
Social Networking 1　2　3　4　5 ☐　☐　☐　☐　☐	**We want to connect with others in the community**	☐ **Community news** ☐ **Finding local resources** ☐ **Shared problem solving** ☐ **Social capital** ☐ **Peer support**	-finding others (directory) -profiles -social network visualization -1-1 interaction -group interaction -media sharing -tagging, rating -subgroups -following others -search -administration -privacy control	***Activity level** ***Social capital** ***Perceived usefulness** ***Cost-effectiveness**

Visualize your priorities

A Spidergram can help visualize the priority actions contributing to the desired outcome. You can use the diagram multiple times to monitor and evaluate changes.

This exercise is best performed as part of the community consultation.

Plot the ranking of each action on the diagram and then draw a line between the points to form an outline of a web.

The action with the highest priority should be the focus of your first campaign.
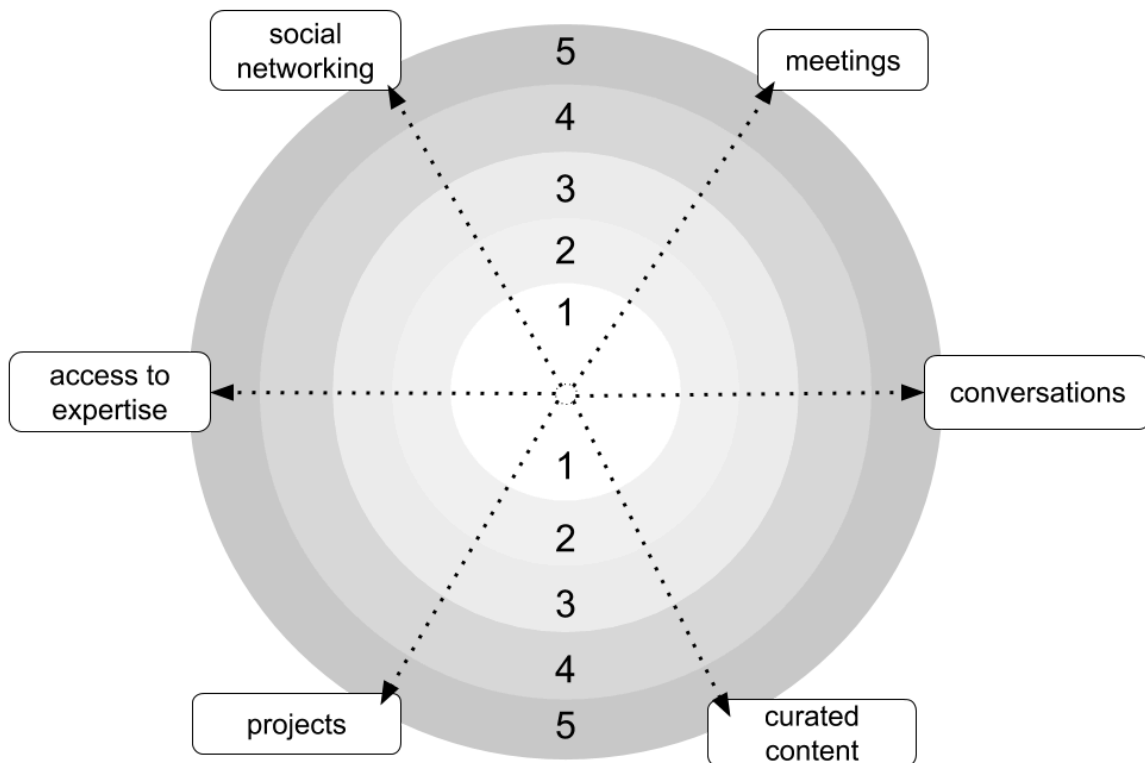
Adapted from Wenger, White & Smith (2009). Digital Habitats: Stewarding Technology for Communities. CPsquare.

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Establish a Campaign Goal

The next step is to establish a goal for the campaign. A well-defined goal contains three important details:

- it sets a specific objective;
- for a specific action;
- with a clearly defined community of practice;

We can use the results of the Opportunity Tree exercise and Spider Diagram to help write the campaign goal:

The goal of the campaign is to

_____

[restate your problem as a positive outcome]

by using ICT to

_____

[top 1 or 2 priority actions from the Spider Diagram]

for

_____

[name your community of practice].

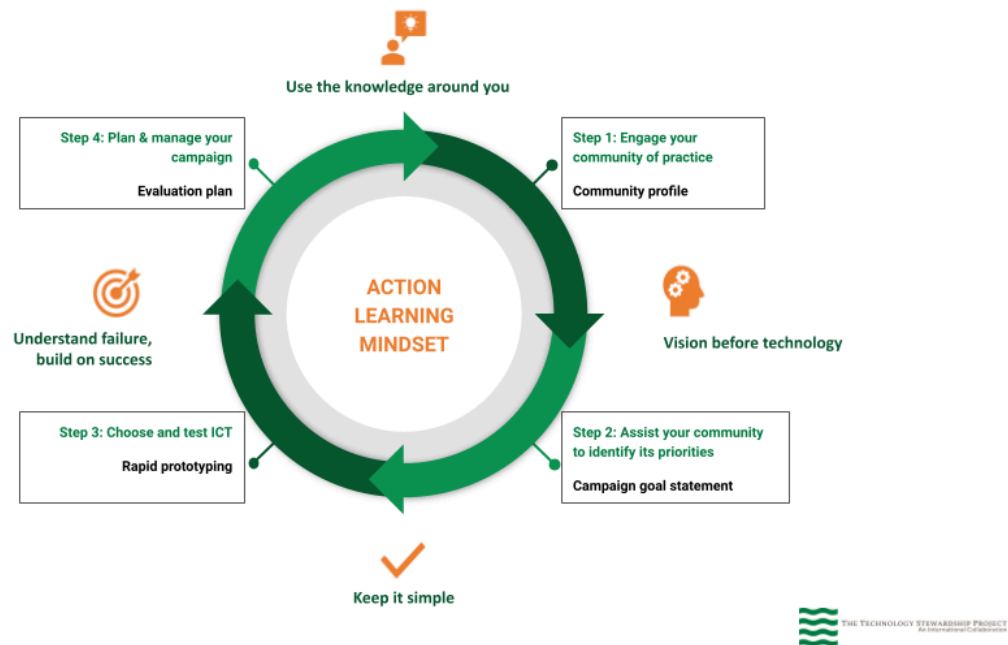# Next steps to planning and implementing a campaign

Congratulations! You have successfully created a campaign goal statement.

The technology stewardship course will take you through the next series of steps to plan and implement the campaign with your community of practice:

- Identify appropriate digital tools or platforms to achieve your goal
- How to choose a technology acquisition strategy
- How to do rapid prototyping and testing of your tool/platform
- How to evaluate your tool as "fit for purpose"
- How to create a campaign plan
- How to create an evaluation plan
- How to organize and manage your campaign in three phases
- How to create a debriefing memo for your community of practice

After completing the tech stewardship course, you will have a set of methods and techniques to support ACTION LEARNING with your Community of Practice.

As a tech steward you will foster an action-learning mindset for building digital literacy skills with your community.

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Notes