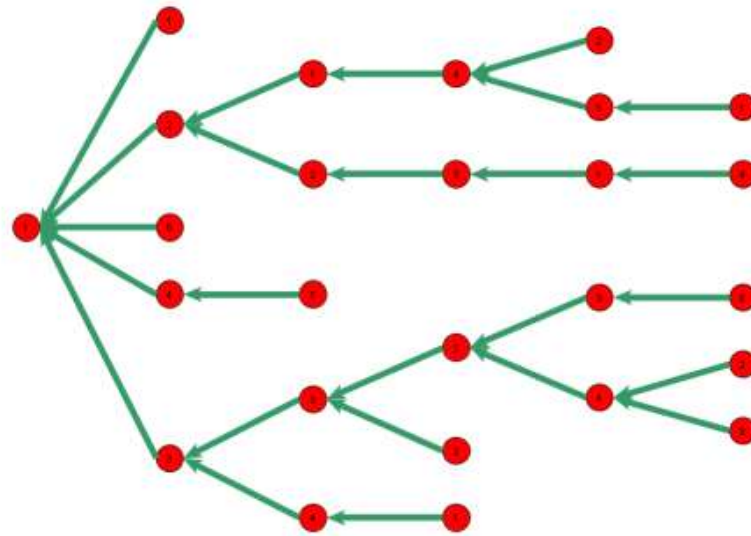




On the measurement of diversity

Explorations within a Participatory Scenario Planning process

ParEvo process design

= participatory evolution of future scenarios or past histories

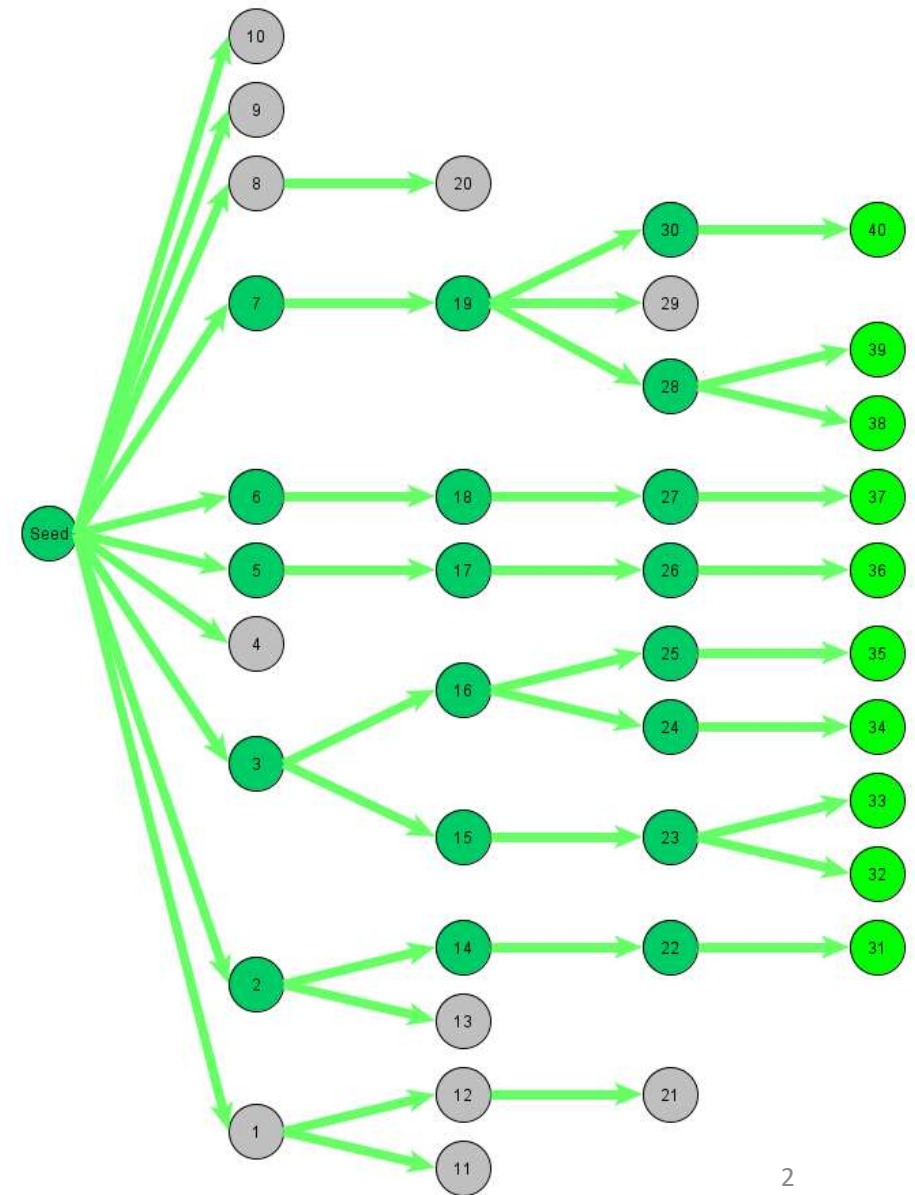
Nodes = short text description of events

Branches = storylines = sequences of events

Tree = storylines built up iteratively, in parallel

Evolutionary algorithm =

- Variation – Participants each add new text, in each iteration
- Selection – Each participant can only add one new text to one existing storyline, per iteration
- Retention/reproduction – only surviving storylines can be added to

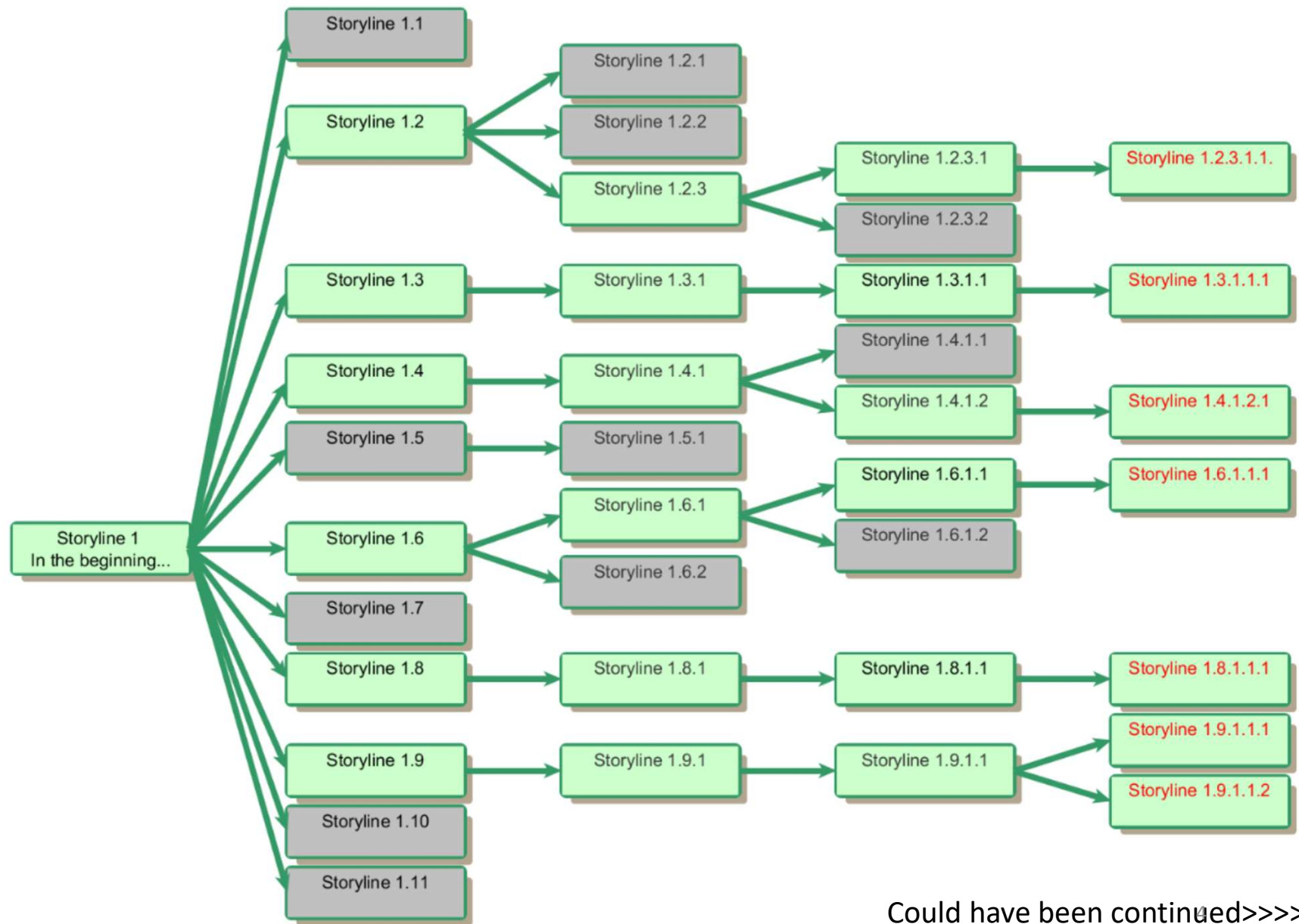


Process implementation

- One group of 10 secondary school students, Swansea, circa 1995
 - Using filing cards, bluetack and blackboard
- Two online pre-tests, late 2018 with 2 x 10 people from 13 countries
 - Using email, Excel, Yed, FileZilla, Blue Griffon, Survey Monkey, WordPress
- Development of ParEvo web app, by Aptivate, early 2019
 - Work in progress, free to use, beta testers welcome!

2018

SP subject:
How MSC was
implemented in
northern Nigeria



Could have been continued>>>>

A web-based process...

1. Allows distant *and* local participation
2. Ensures anonymity of contributions within a known set of participants
3. Provides a user friendly navigation within & between storylines
4. Speeds up the process of soliciting, organising and analysing contributions
5. Minimises errors otherwise likely if the above are done manually
6. Provides a platform for multiple users, and a means of learning between them

ParEvo

web app

User view

- Tree
- Storyline
- Comments

ParEvo

Rick's MSC pretest Exercise

Help

Logout



Welcome to ParEvo!

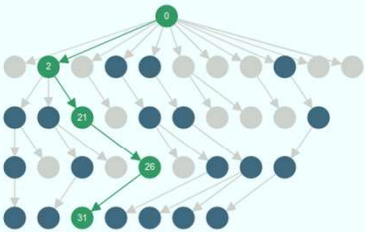
"Hi, I am facilitating this exercise. You can contact me directly at any time if you have any queries about the process we are using: (rick.davies@gmail.com)

This is the last iteration of this exercise.

Thanks again for your continuing participation,
Rick Davies

Iteration #5

Iteration #5



<

Storyline ending #31

>

In January 2017, I was recruited to manage the Household Economic Strengthening component of a USAID program in Nigeria. Its objective was that all orphans and vulnerable children would be able to access comprehensive and coordinated services and are able to realize their full rights. I had to manage state "household economic strengthening" coordinators across 5 Northern states and 2 Southern states, who in turn were coordinating 50 officers attached to the civil society organizations across the local governments where the project was implemented. Their efforts were targeted towards 675,000 children and 175,000 caregivers. My immediate concern was to check the level of knowledge and implementation of the different economic strengthening interventions at the state levels. So, I set up a scaled strength and weakness checklist of the different type of viable economic strengthening interventions for the coordinators. I wanted everyone to realise "one-size does not fit all" even if a group of people is all categorized as vulnerable. There are types and levels and as such should be provided support accordingly. We came up with a scoring system for the categories of household, taking into account context difference. We then monitored the types of services provided to each. Built into this framework was an expectation that as households progressed, they would access varied packages of services best suited to their needs. In some states I was able to meet the state coordinators and local officers during their state monthly and quarterly review meetings, to see what was happening. Elsewhere, I relied mainly on program reports and visits. Overall most of my contributions were made from a "helicopter view". I thought that MSC could help us gather evidence and ideas for potential follow-up projects, for program development and to learn about how program participants felt. My intention was to help the coordinators develop a simple template for the collection of stories at the state level, which would be shared with the local government officers to demonstrate tangible achievements at the household level and to be reported quarterly.

Most program staff have worked on other USAID projects and generally understand and support M&E. I shared my idea with other leads and management at our staff meeting, for everyone's input and buy-in, since we might make changes based on what we learn through using MSC. The Chief of Party and Deputy Chief of Party immediately raised questions of cost and resources, since we already had a robust M&E system in place, approved by USAID, with many indicators and an expensive web/phone reporting application. The M&E Director said the program's complexity means that qualitative stories will not be representative data.

I also explained that in complex setting, quantitative monitoring approaches did not provide the global either unexpected changes induced by the intervention. The MSC technic will enable programme managers to learn about the change including unexpected outcomes from the perspectives of beneficiaries and other stakeholders.

After sharing an update during the program management meeting, a recurring concern was, "How do we integrate collection of stories with the existing method of data collection and monitoring for easy and regular analysis?" The project director then proceeded to set up a task team which included focal persons from each of the various thematic program areas chaired by the M&E Advisor to propose how best to proceed within two weeks. An additional task was for the consideration of time, staff and cost implications as well as how best and when to inform senior management and the donor in the event of alterations to the already approved plans and budget.

The programme managements are highly excited to looking summary progress of the project interventions and made a plan to improve the gaps identified during MSC process. They have included in a plan for adaptation of MSC to other intervention areas and widely dissemination and publishing plan of MSC findings through annual report, blogs, website, newsletter, print media, donors and other agencies for fund generation to scaling up the project.

2 comments

We could do this

This sounds plausible...

ParEvo

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6

Site by Activate

Applications

- Within evaluation – looking back
 - Development of alternate histories of programme implementation and its effects
 - Multiple and mixed stakeholder perspectives
- Within programme planning – looking forward
 - Development of alternate views of the near future
 - Flexible planning
 - Flexible M&E systems

Evaluating ParEvo contents

- Participants evaluate contents as they:
 - Selectively extend some storylines and ignore others
 - Comment on the extensions made by any participant = meta-conversation
 - Evaluate completed storylines
- Third parties / Facilitator can look for:
 - What has been left out
 - People
 - Issues

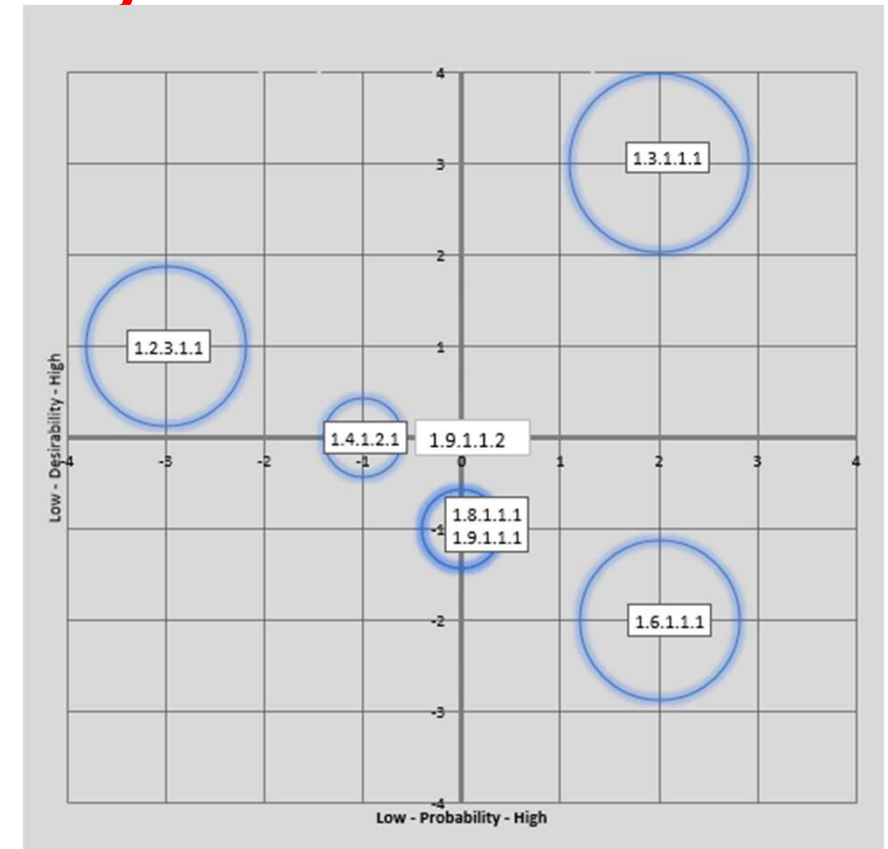
Evaluation of whole storylines

Criteria

- Pre-set: Probability, Desirability
- Emergent: From Comments

Measurement

- Summary-by-selection
 - Please identify from the list below one storyline that you think is *most* [criteria]
 - Please identify from the list below one storyline that you think is *least* [criteria]
- Aggregation
 - Subtract # of “least” from # of “most”, for each criteria
 - Plot these numbers



Numbers = numbers of participants selecting. Circles = individual storylines

Parameters that can effect storyline contents

- Participants can vary
 - Who adds what to whose contribution on which storyline
- Facilitator can vary:
 - Who participates
 - Variation: # of contributions
 - Selection: What can be continued
 - Speed of iteration
 - Number of iterations
 - Feedback on individual performance
 - Evaluation criteria



Participation data...

is continuously generated & can be summarised in two matrices

- Affiliation matrix
- Adjacency matrix



Receiving contributions

	Peter	Paul	Mary	Bob	Joan	Joni	Leonard	Ringo	John	Cat
Peter							1			2
Paul				1					1	
Mary		1			1	1				
Bob			1	1				1		
Joan	1				1		1			
Joni					1	2				
Leonard		1								1
Ringo	1								2	1
John			1							
Cat				1				1		

Storyline

Storyline 1.7
 Storyline 1.1
 Storyline 1.10
 Storyline 1.11
 Storyline 1.2.1
 Storyline 1.2.2
 Storyline 1.5.1
 Storyline 1.6.2
 Storyline 1.2.3.2
 Storyline 1.4.1.1
 Storyline 1.6.1.2
 Storyline 1.2.3.1.1
 Storyline 1.3.1.1.1
 Storyline 1.4.1.2.1
 Storyline 1.6.1.1.1
 Storyline 1.8.1.1.1.
 Storyline 1.9.1.1.1
 Storyline 1.9.1.1.2

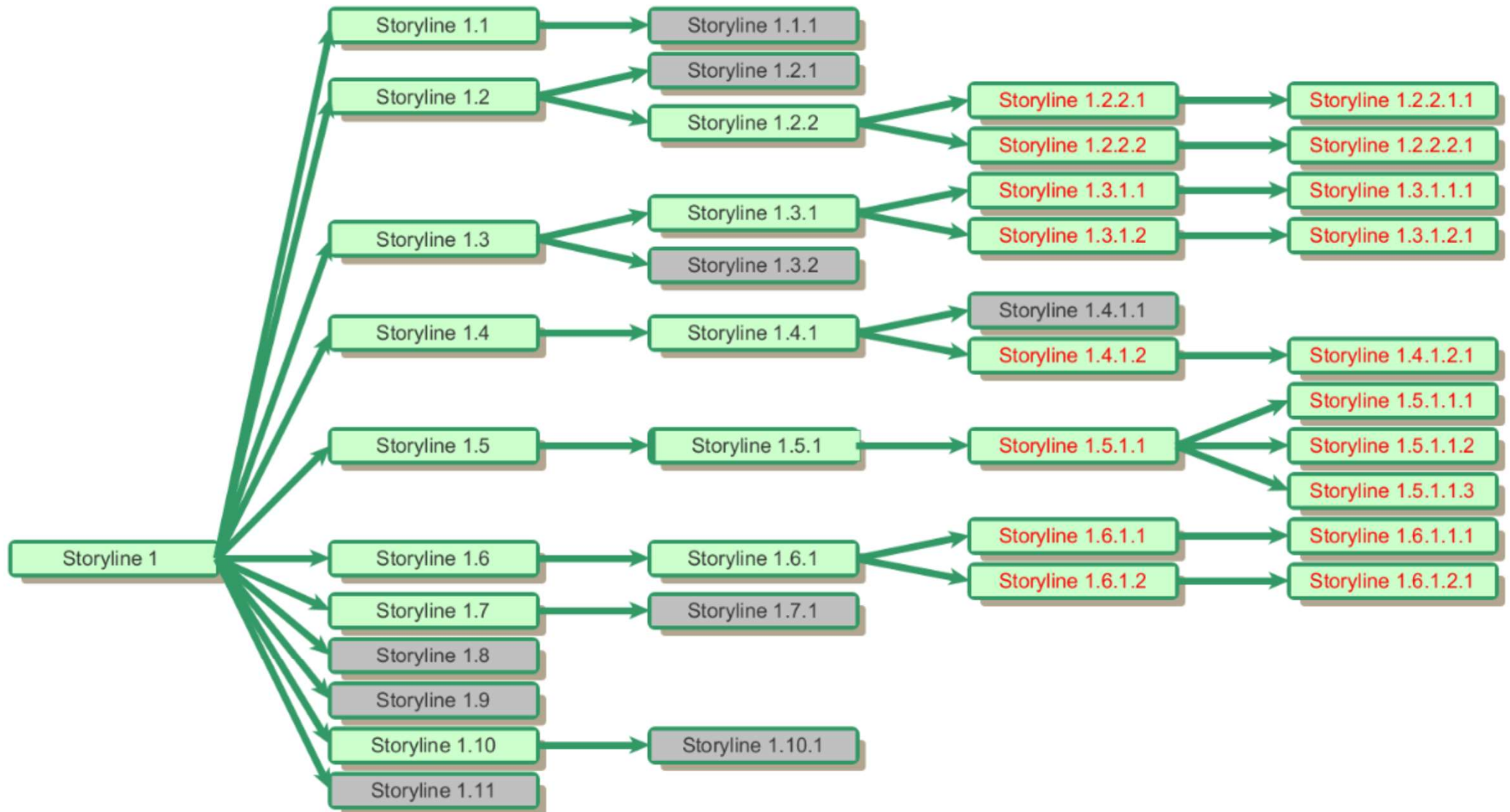
	Peter	Paul	Mary	Bob	Joan	Joni	Leonard	Ringo	John	Cat
Storyline 1.7										
Storyline 1.1							1			
Storyline 1.10								1		
Storyline 1.11									1	
Storyline 1.2.1	1			1						
Storyline 1.2.2				1						1
Storyline 1.5.1						1		1		
Storyline 1.6.2										1
Storyline 1.2.3.2		1		1					1	
Storyline 1.4.1.1			2							1
Storyline 1.6.1.2						2				1
Storyline 1.2.3.1.1	1			1					2	
Storyline 1.3.1.1.1	1	2		1						
Storyline 1.4.1.2.1			4							
Storyline 1.6.1.1.1				2		1				1
Storyline 1.8.1.1.1.					4					
Storyline 1.9.1.1.1	1					1	2			
Storyline 1.9.1.1.2	1						3	11		

Analysing participation in terms of Diversity

- Variation is intrinsic to an evolutionary process
- Diversity is indicative of a degree of agency
- Lots of research done on diversity & group performance
- Simple but sophisticated measures available, already used in other fields:
 - Ecology
 - Social Network Analysis

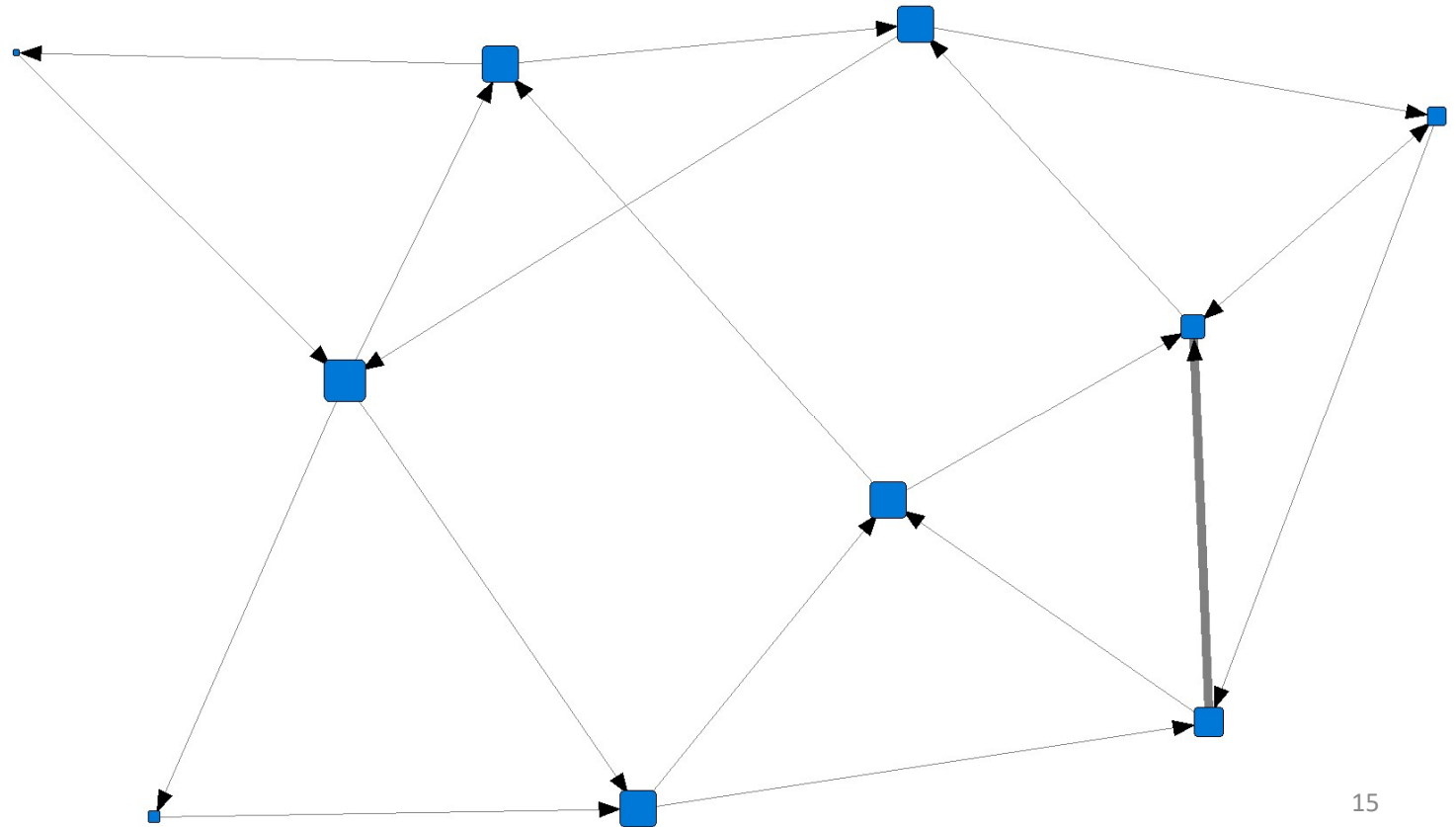
Measuring diversity

- How to measure diversity: Stirling (1998)
 - **Variety**: Numbers of types of things (aka Richness)
 - # of storylines, current and extinct
 - # of participants in role of recipient
 - # of participants in role of contributor
 - **Balance**: Numbers of cases of each type (aka Abundance)
 - # of times a participant contributes to a storyline
 - # of times a participant contributes to another participant
 - # of times a participant receives from another participant
 - **Disparity**: Degree of difference between each type (aka Distance)
 - Distance between different storylines
 - Distance between each participant



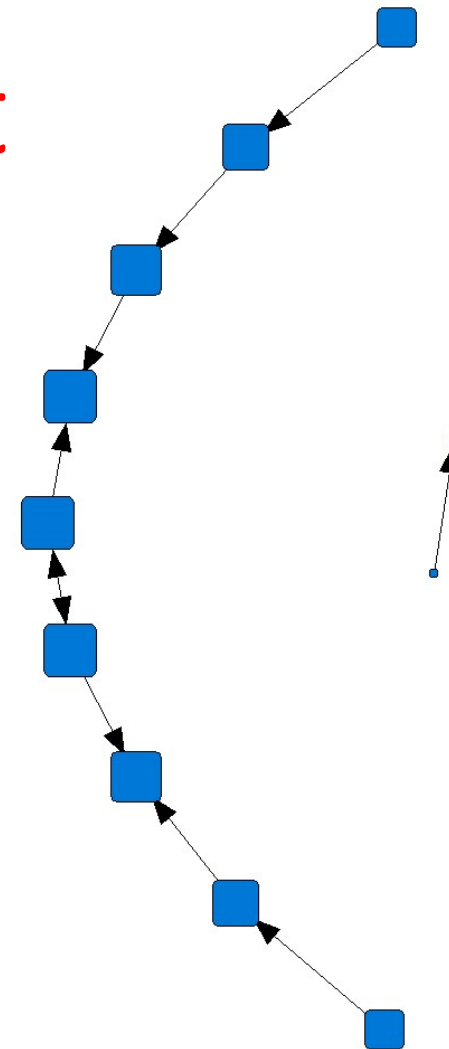
MSC pre-test participants

- Network density = 37%
- Average “closeness” = 2.4



Brexit pre-test participant

- Network density = 23%
- Average closeness = 3.6



MSC use in Nigeria and Post-UK Brexit

- Whole network view:
 - Variety: % of all possible types of participant interactions
 - MSC Nigeria = 88% vs Brexit UK = 66%
 - Balance: SD of number of each type of interaction
 - MSC Nigeria = 0.33 vs Brexit UK = 0.75
 - Disparity: Average “closeness” of each participant
 - MSC Nigeria = 2.4 vs Brexit UK = 3.6

MSC pre-testers more diverse in Variety and Balance but less so in Distance

MSC use in Nigeria and Post-UK Brexit

- Contributor view
 - Variety: % of others a participant contributes to
 - MSC Nigeria: 91% average vs Brexit UK: 70% average
 - Balance: SD of numbers of contributions to each other participant
 - MSC Nigeria: 0.15 average vs Brexit UK: 0.39 average
- Recipient view
 - Variety: % of others a participant receives from
 - MSC Nigeria: 90% average vs Brexit UK: 70% average
 - Balance: SD of numbers of contributions receive from other participants
 - MSC Nigeria: 0.15 average vs Brexit UK: 0.18 average

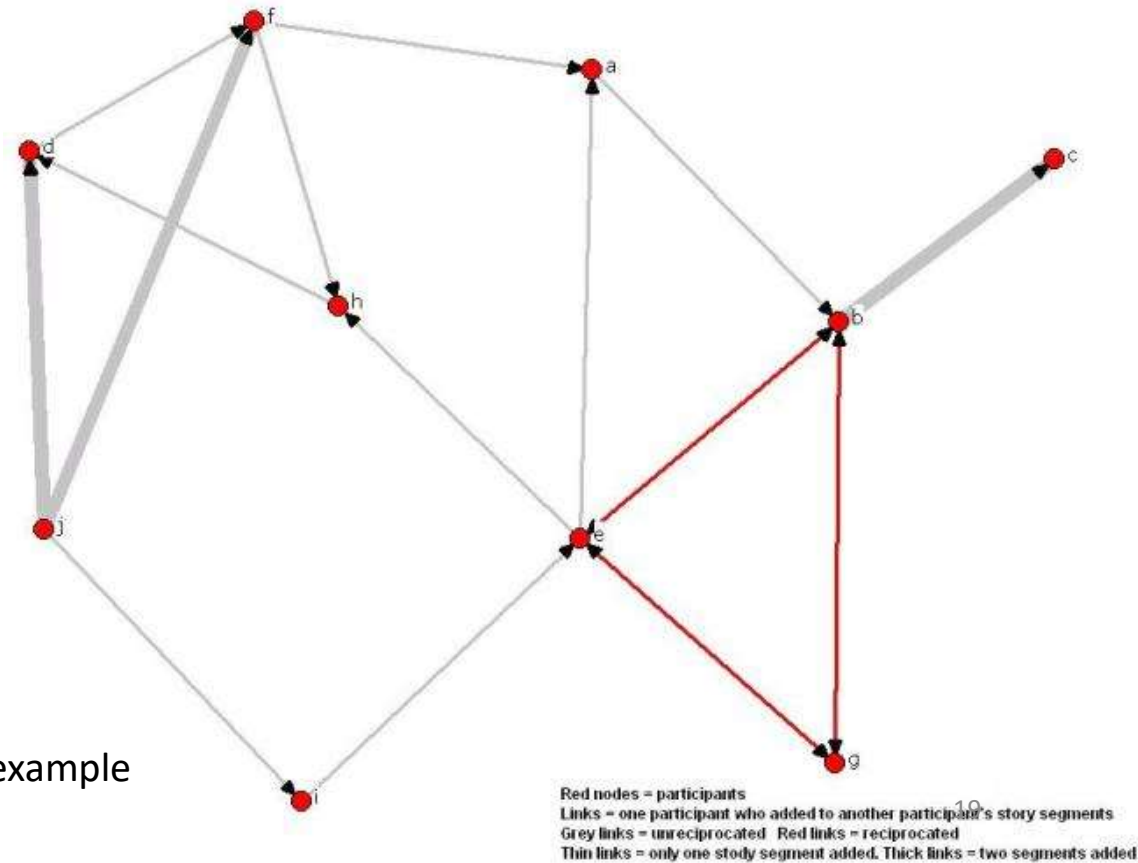
More diversity in the MSC pretest on Variety and Balance

Opposite of Diversification = Specialisation

Specialisation = Exploitation Diversification = Exploration

- Exploitation examples
 - Building on ones own storylines
 - MSC Nigeria = 27%, Brexit UK = 65%
 - Forming cliques within networks
 - Building on the storylines of 1 or 2 others only
- Exploration examples
 - Proportion of storylines that are extinct
 - MSC Nigeria = 63% vs Brexit UK = 47%

Swansea 1990s example



What's next: Finding out what works

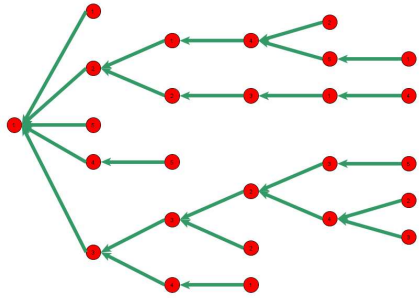
- Clarifying ParEvo outcomes of interest
 - One type of storyline e.g. MPMD), or
 - A particular mix of storylines (MPMD, MPLD, LPLD, LPMD)?
- Clarify and test hypotheses: What forms of participation are associated with storylines that “do well”
 - Collective ownership (high variety and high balance) ?
 - MSC MPMD had 75% vs 57% average
 - High level of exploration (many extinct side branches)?
 - MSC MPMD had 3 vs average of 0.23
- Gamification: What would happen if participants rated by # of contributions they received?

Bigger questions: How do we evaluate the future?

- Do we have an impoverished view of the future?
 - Most M&E still using linear models – so 19th century
 - Scenario planning – still confined to a few boxes representing cartoon /trope / archetype images of the future
- We need ways of
 - Articulating futures
 - Evaluating futures
 - Analysing how views of futures can be socially constructed

...and how do we evaluate the past?

- Construct and explore multiple stakeholder perspectives on
 - what did happen
 - what might have / could have happened
- “Implementation failure” is probably the easiest theory for an evaluation to test, and probably the most likely candidate explanation for what happened
- In large programmes recognising implementation diversity may also an important part of understanding what works for who, when and how



ParEvo website

<https://mscinnovations.wordpress.com/>

Pre-testers / users welcome

Email: rick.davies@gmail.com