Kennisland

Feed Forward Platform

Tested Tool & Review

Emergence by Design - D. 3.4.1.

Place:	Kennisland (MD participant number 5), Amsterdam
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In coordination with:	Factlink (MD participant number: 7)

1. Introduction

Feed Forward (Deliverable 3.4.1) is an online platform that connects individuals and groups of social innovators to support peer-learning and generate collaboration and supportive behaviour to move practices of social innovation forward by:

- providing feedback structures in the form of a story-template (to stimulate the quality of feedback)
- creating open access to user-generated knowledge on innovation processes (to inspire other innovators)

On Feed Forward a social innovator can connect to open or private innovation groups (moderated by a group-admin). The input in the tool is: a textual report (eg. description of a challenge, ending in a request for help). The output is feedback in three optional forms:

- Unstructured feedback: *comments*, which are uninterpreted reports from other users;
- Semi-structured feedback: *stories* that are specifically derived from people's experience and follow the logic structure of an anecdote;
- Structured feedback: a fitting *anecdote*, which contains re-ordered content of previously uploaded challenges, comments and stories (structured feedback is currently manually constructed by a dynamic evaluator by eliciting narratives on platform and re-posting anecdotes; see case study Education Pioneers D. 3.2.)

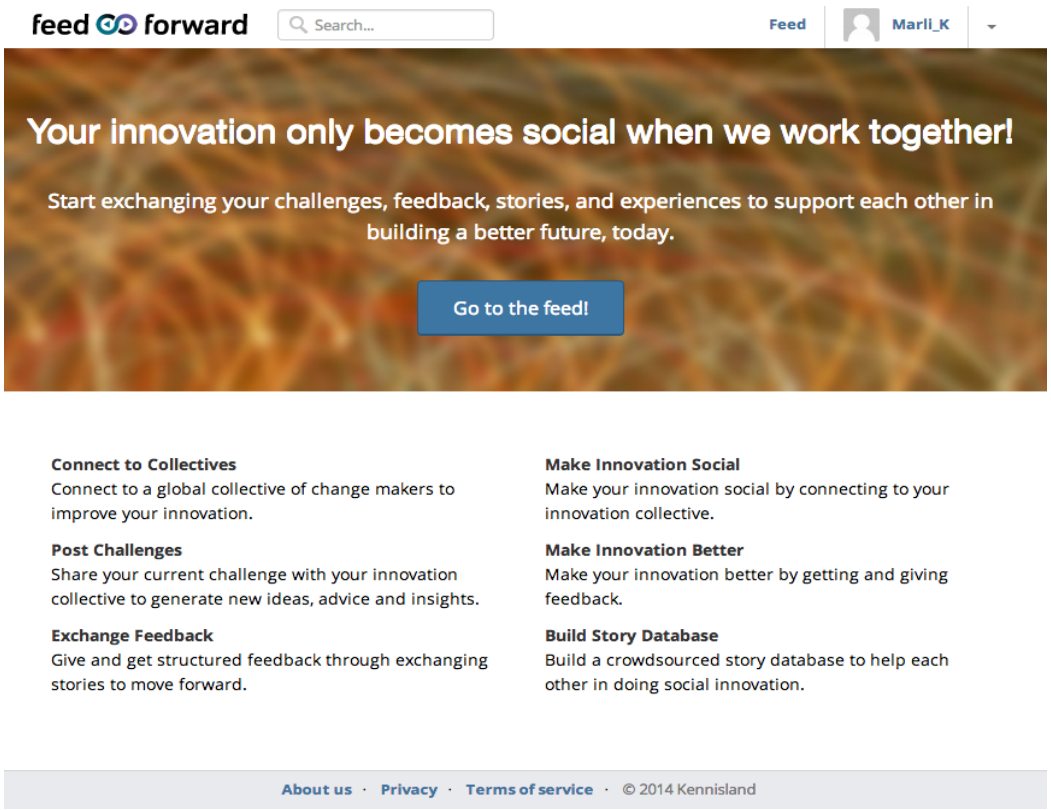
Once a challenge is resolved one can chose to publish the storythread to the general public on the platform. In this way innovators beyond the platform can benefit from the generated knowledge within innovation communities.

Feed Forward consists of tested software[1]. The web-based platform was built in Ruby and Javascript, with application hosted on Heroku. The source code is available on github and licensed under MIT and EUPL v1.2[2]. The platform is part of the MD-storyboard tool development in the EU-funded project Emergence by Design (MD).[3]

[1] http://feedforward.me/
[2] https://github.com/Factlink/feedforward
[3] grant agree no: 284625, ICT-2011.9.1

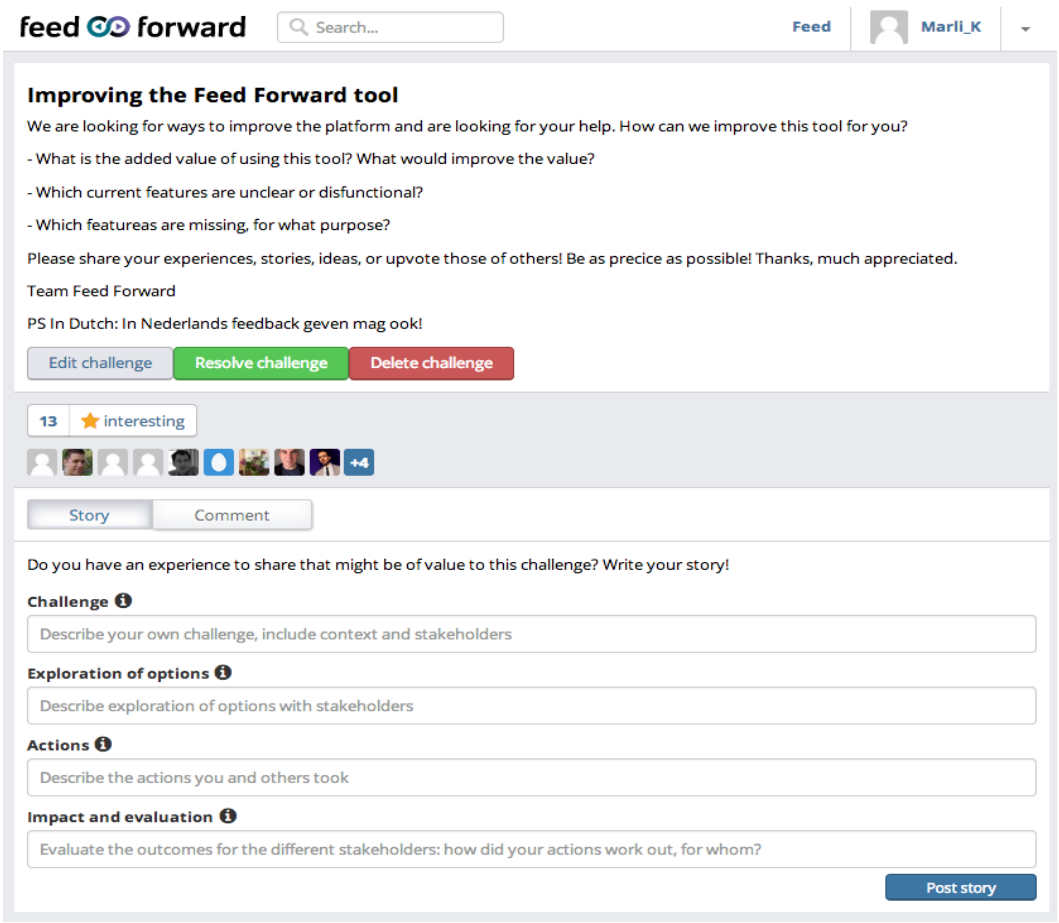
Feed Forward has a user manual[4] on how to use the platform, log-in functionality, published stories in a 'public feed', closed or open 'innovation communities' in which social innovators can share their challenges and receive feedback, a search functionality and a notification functionality.

Screenshot 1: Homepage Feed Forward



[4] http://feedforward.me/HandbookDEtool.pdf

Screenshot 2: A challenge and a story-format



Feed Forward is built on the needs that came forth from a case study with teachers who try to implement self-organised innovations in their schools (Education Pioneers in the Netherlands, Deliverable 3.2: Education Pioneers Case Study). In this search the use of stories (instead of research reports, top-down policies) emerged as particularly valuable feedback because of their stringent structure (e.g. challenge, exploration, action, evaluation) and their ability to hold instructional knowledge and normative user-value.

Rationale

The Feed Forward platform supports [the main purpose of the MD-consortium](#)[5]: "giving power back to society to direct innovation processes towards greater prosperity for all. In this conception, social innovation challenges the foundations of the "Innovation Society's" narrow ideology. It provides an alternative through which engaged citizens can mobilize to construct a socially sustainable future, and assess the impact of social innovation themselves. Feed Forward is an attempt to break free from current practice in a field that's monopolised by *experts* and limited to narrow input–output calculations. In a dynamic evaluation, every member of a group or community is given the opportunity to take part in the process by telling their story. An online platform then allows them to store these stories, compare them with each other, and identify commonalities,

5 https://www.opendemocracy.net/transformation/david-lane-filippo-addarii/social-innovation-and-challenge-of-democracy-in-europe

inconsistencies, and patterns. It's an approach to evaluation that should help people to gain more control over the process of social innovation by democratizing impact assessment, a domain where a small elite of experts usually maintains control."

General approach

In the analogue practice of developing ways to support social innovators in their daily practices (eg. pioneering teachers in schools scattered around the Netherlands, see Deliverable 3.2: Case Study Education Pioneers), we noticed day-to-day challenges that could be countered by an online platform with learning communities:

- *time delays*: an online tool can make an innovation process more real-time. At any time of the day one can give input and request output
- *physical distances*: an online tool can connect innovators over global distances to other communities of social innovators
- *scattered data collections*: an online tool can collect data in one place for both innovators and innovation managers who design support- or policy structures for social innovation processes (e.g. project leaders, school directors, researchers)
- *lost histories*: an online tool can store data, which can be revisited at a later point in time
- *receiving 'expected feedback'*: to stimulate innovation an online tool can use its datapool to generate unexpected feedback: from different angles, multi-disciplinary backgrounds of users, who reside in different countries, who have tried different directions, who will provide different feedback

By gathering social innovators in online learning communities with other social innovators (from their field or other fields) one could overcome these challenges and raise the incentive to help each other.

MD-partners Factlink and Kennisland went on an extensive search to find a tool that could connect people, support the act of storytelling and use those stories to construct feedback and provide support to social innovation processes.[6] Our search concluded that the currently available formats of modern (social) media (e.g. Facebook, Google+, Basecamp, HorYou) or research tools (SPSS, Envivo, DeDoose, SenseMaker) do not adequately combine the act of story-generating, story-using and networking with the act of research. We concluded that dynamic evaluation required a specific online platform in terms of format and structure that can benefit social innovators to:

- connect to potential guidance at any time of the day, in the form of access to other users, or helpful stored resources: previous experiences in a high quality form (anecdotes)
- structured input through guiding formats (e.g. how to ask a good question, how to give a good (structured) answer (e.g. in the form of an anecdote)
- make visible what is happening in a process of social innovation in a structured way;

[6] This research has been conducted by discussing the workings of various tools in Basecamp, our project management environment of Workpackage 3 . A summary is available in deliverable 3.1 as processed for the mid-term review of MD.

We built Feed Forward to answer these needs. Ideally anyone, from citizens, innovators, project managers, policy makers to community leaders and researchers can become part of or set up a group of innovators and crowdsource collaborative knowledge on real-time practical challenges.

2. Implementation Feed Forward

The Feed Forward platform is currently a stand-alone tool. Here we describe the effort we took to make sure that the Feed Forward Platform functions properly. Evaluation and testing needed to be done on two levels. These levels ensure that the tool works with the correct data and has no errors in its research:

- The software needed to be tested to ensure its workings.
- A public peer review process was set up to disseminate and test the Feed Forward Platform

2.1. Software architecture and software testing

The Feed Forward Platform is software that is primarily built in Ruby (with Ruby on Rails) and Javascript. Using standard techniques enables simple adoption in other Ruby on Rails projects as well as easy deployment as a rich internet application like Heroku. The software uses different modules to perform its function. Each module has a specific task. All modules were tested individually to make sure that all tasks are covered. The data was tested by using fixtures that check if the data is still in the same format.

2.2. Building and testing the tool with users

The full process for the creation of the Feed Forward Platform consisted of six basic steps, as detailed below.

Step 1: Understanding the needs of a sample group (September 2012 - June 2013)
Throughout one year Marlieke Kieboom worked with the project team of an existing innovation programme named Education Pioneers and teachers to understand their behaviour and needs for Dynamic Evaluation (see mid-term review Deliverable 3.1: proof of concept Dynamic Evaluation).

Step 2: Define users and needs (July 2013 - August 2013)
Through our case study in Education Pioneers we identified three types of users.

User 1: a person who is innovating and who is seeking peer-support (e.g. a teacher, a public servant, a development cooperation worker). Examples of users-1:

- a teacher in Rotterdam who wants to challenge language deficits with migrant children
- a public servant in The Hague who wants to challenge youth unemployment with school drop outs
- a human rights activist in Uganda who wants better gay rights

User 2: a group-admin who has the role of group-coach (e.g. a project leader, researcher or evaluator of innovation processes, e.g. in the field of education). Users-2 supports

innovations in a group of innovators. They have the responsibility to design better support structures for innovation processes. E.g.: By stimulating the exchange of information between users-1, by keeping the tool clean, by doing research on the exchanged information, by constructing and publishing anecdotes. Examples of users-2:

- A think-tank employee who supports policy-makers in the Ministry to challenge unemployment with youth
- A school director who wants to support a group of his teachers to fight language deficits with migrant children in his school
- A policy-maker who needs to design a policy for women to better benefit from access to prenatal health care
- A researcher who wants to do research on an innovation process to support users-1
- A development aid worker who is facilitating support for a group of gay activists

User 3: visitor of Feed Forward with interest in the platform. A visitor is someone who wants to learn what the tool is about and should be enabled to learn how the platform works before setting up an account. A visitor has access to disclosed stories and knowledge that is generated by users-1 and 2. A visitor also needs to be informed about privacy policies and copyright.

Step 3: Write and check use-cases (September - October 2013)
On the basis of both the needs of teachers (aka social innovators) and project managers we wrote two use-cases that were checked by both user-groups. Read use-cases here.

Step 4: Write user-stories (November - December 2013)
The user-stories were written based on the use-cases, and prioritized in such a way that the minimum of user-stories could make a functioning tool to be tested (agile scrum method). Read user-stories here.

Step 5: Implementation into code (January - June 2014)
In the final step, the user-stories were translated into code by Factlink. Factlink and Kennisland worked with Google-hangouts and with a tool named Trello[7] to track progress.

Step 6: Testing with end-users (July - October 2014)
There were 70 registered test-users with an average log-in of 4 times. The testing was mostly done online and individually/independently. Sometimes there was a skype-session with the developers to discuss the functionalities of the tool in person. The test-users left ideas on the platform and wrote the developers personally.

The test groups consisted of:

- Testgroup 1: Kennisland and MD-partners (users 1 & users 2: group-admins, social innovation facilitators)
- Testgroup 2: Two groups of teachers and school leaders (users 1: Education Pioneers 2012-2013, Innovation Impulse Education 2014)
- Testgroup 3: Global social innovation lab practitioners (users 1&2)

[7] https://trello.com/

Overall we have received positive feedback on the core aim of the tool: peer-support through story-generation and use for social innovators is needed and useful. Stories of peers are inspiring to support their actions. One user commented: *"I like the way it is essentially a discussion tool but with a very different context and purpose."* However most users found the structure that is provided to write stories too structured and rigid: *"What is the shape of a story that allows it be shareable without it being too structured?"*. And: "*The story questions are too prescriptive: how can you prompt this kind of sharing in a less prescriptive environment?*". It proved hard to get users to return to the platform: *"how can you encourage my contribution, and motivate my peers to contribute?"*. Someone said it quite apt: *"You need a double sided sword. On the one hand you need stories, thus how to get people to generate stories? On the other hand you need consumption: how can other people consume, use stories?"*.

Further (clustered) points for improvement based on user-feedback:

- (users-1) create more user unfriendliness: differentiation by colors, a lot of clicking
- (users-1) make everything open, nothing private
- (users-1) more visual functionalities: upload of other forms of reports: video's, pdf's
- (users-2) researchers are not helped with research tools (e.g. clipping) to clip posted resources and re-construct stories into new anecdotes (see deliverable 3.2: case study Education Pioneers)
- (users-2) no options yet for collaborative research and interpretation
- (users-2) no option yet to access a database of stories

Based on the user-feedback Factlink added and adjusted several functionalities, e.g.:

- less anecdotal structure (too rigid)
- notification system to follow actions of others to encourage users to return
- delete/add-rename group

3. Recommendation for future work

This platform is a prototype that needs further enhancement to make it valuable for groups of social innovators. Feed Forward is currently a stand alone tool because our research (see Deliverable 3.2) showed that the approach we took to construct and use anecdotes needed different functionalities than the other case-studies conducted in MD-Workpackage 3. However it makes the adoptability for third parties (or embedding in other tools/websites) unattractive. Emergence by Design needs a structure where the platform will remain healthy and maintained.

What are the real motivations of people to use online technology? In hindsight the product/output of the tool ("*what can you get when you use the tool?*") could have been more clear and tangible: a well-designed project page, a way to visualise a story[8], a research section for constructing stories into anecdotes (e.g. tag and store content), a database of stories. *"Is there a human layer involved in this question about peer-support, that can't be replaced by tools?"*, wondered one of the test-users from Canada with a

[8] http://www.submarinechannel.com/top-5s/top-5-storytelling-tools

social enterprise. He said: *“For 200.000 Euros, could you have hired three story-chasers who could have provided a better, more human format to reach the same goal?”.*

This makes us wonder: what is the incentive for people to share dilemmas of the real world online? *“If it is valuable feedback to move forward, than that’s something you can get at the coffee machine too",* said another test-user. *"How to get behind the question of the question, the challenge behind the challenge, on a tool without probing eyes?. Because what people want, is not often what they are looking for. To be heard, to have access to other people, gain relevant experience of where they are at. They do not need the answer to simple questions."*

A next step would be to develop new functionalities of the tool that could support social innovators in constructing new anecdotes out of existing stories (see Deliverable 3.2, Chapter 3). This would help in detecting emerging grander narratives for (narrative-based) policy making. In the future it can be integrated in the MD-storyboard to conduct other forms of research. Another suggestion to make an impact with Feed Forward is to translate the lessons of Feed Forward to functionalities of existing tools, for example in the workflow tool Slack[9], one could provide a ‘stories channel’, in which teams can specifically leave experiences and stories ordered and tagged around specific (future/past) challenges. In this way knowledge generation is integral in the workflow of groups of innovators. One important idea to take into consideration is: how to keep the knowledge circulation open access? Part of the public review process of this tool also includes a public discussion on this model.

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[9] https://slack.com/

About Emergence by Design

This document adds to deliverable 3.4.1 (Feed Forward Platform[11]) which constitutes an online platform to generate narratives to facilitate social innovation practice in the project Emergence by Design ("MD", grant agree no: 284625, ICT-2011.9.1)[12]. The Feed Forward Platform is developed and tested by Factlink (MD participant number: 7) and Kennisland as part of the MD-storyboard tool (all MD-partners). D 3.4.1 is linked to deliverable 3.2: Case Study: Education Pioneers. The research leading to these results has received funding from the European Union Seventh Framework Programme (FP7/2007-2013).

About Kennisland

Kennisland (Amsterdam, Netherlands) is an independent action-oriented think tank, founded in 1998 with a public mission to make societies smarter. Kennisland designs and implements innovative interventions to strengthen our knowledge society to provide new approaches for societal challenges. Kennisland connects different levels and sectors to create new strategies, concepts, ideas and structures that work. Kennisland currently works in the fields of educational innovation, smart government, creative economies, cultural heritage and copyright.

About Factlink

The Feed Forward platform is built by Factlink. Factlink is a social, more-than-profit enterprise aiming to increase the quality of online information. Factlink is an application that enables internet users to collectively review information found on the world wide web through an inline commenting system.

About the author

Marlieke Kieboom is a researcher at Kennisland. Marlieke's expertise is divided among conducting (action) research, designing innovation support structures, and practically managing operations. Marlieke obtained an MSc in Anthropology (Utrecht University, NL) and an MA in Conflict and Governance (Simon Fraser University, CA). She was part of several knowledge initiatives in the Netherlands, Canada, India and Central-South America. Please email her at mk@kl.nl with questions, ideas, feedback, comments or new ideas for future endeavours.

[10] http://creativecommons.org/licenses/by/4.0/
[11] http://feedforward.me/
[12] http://emergencebydesign.org/