



Engaging Content
Engaging People

Towards an open Data Vocabulary for Canvas-driven Innovation Ethics

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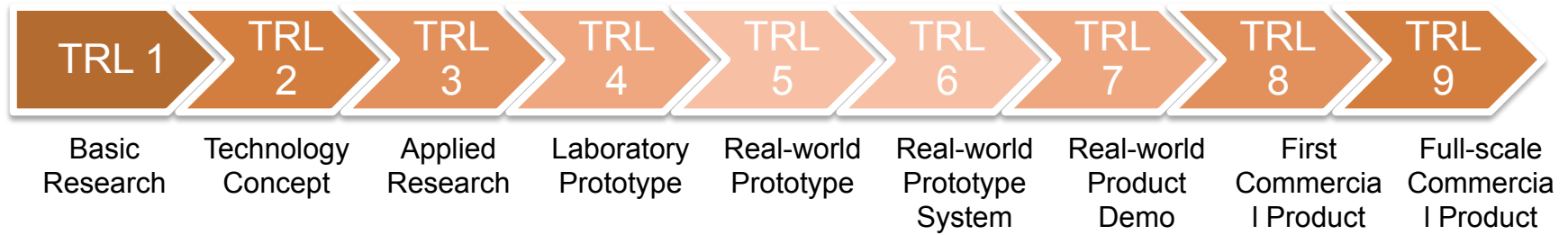
Semantic Web for Good workshop
ISWC 2018
Monteray 9 Oct 2018



European Union
European Regional
Development Fund



Innovation Ethics



Academia

Industry

Research Ethics

Technology Ethics

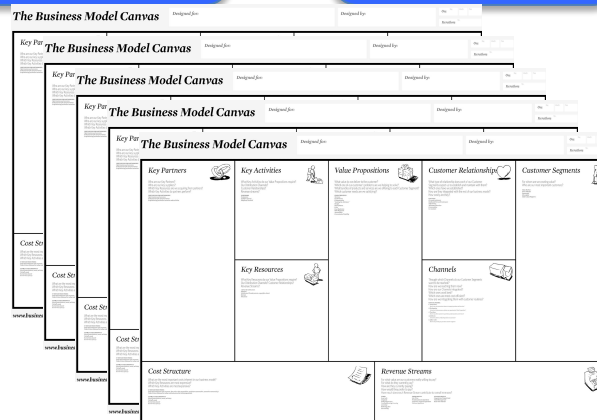
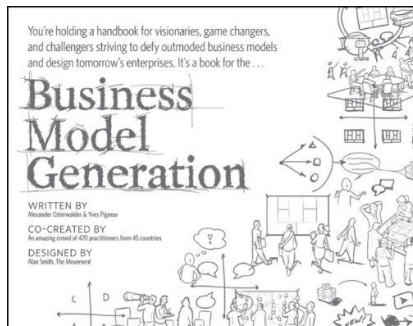
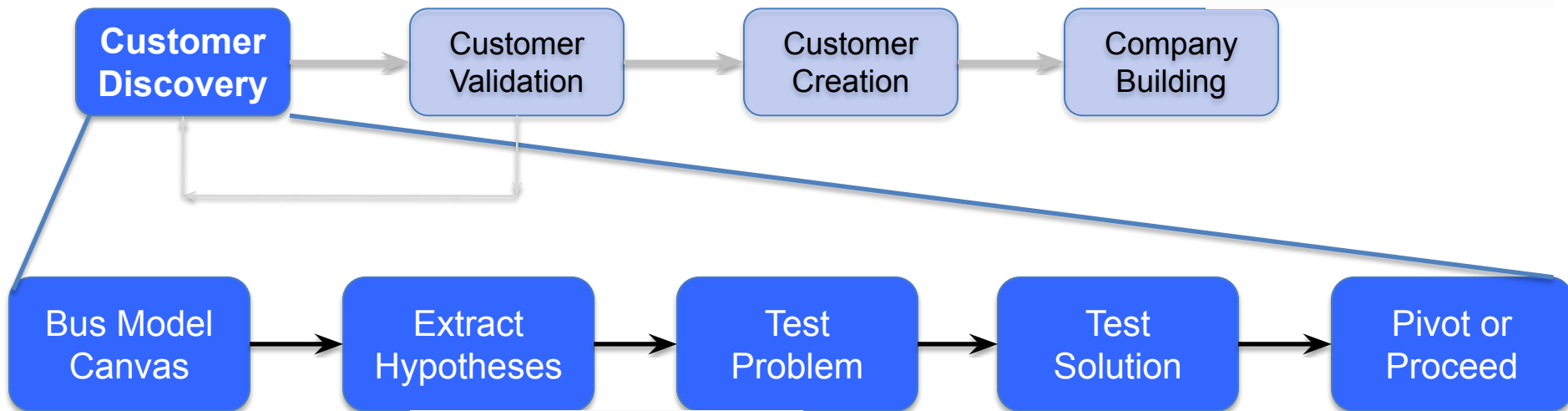
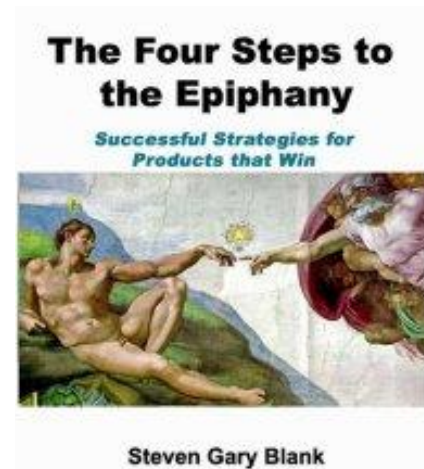
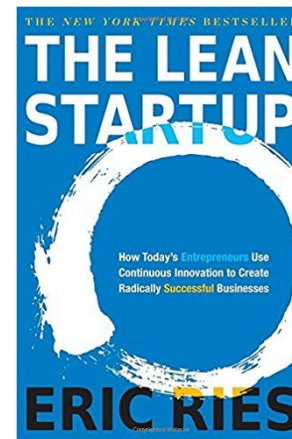
ExAnte

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ExPost

Data Hungry Innovation Methods

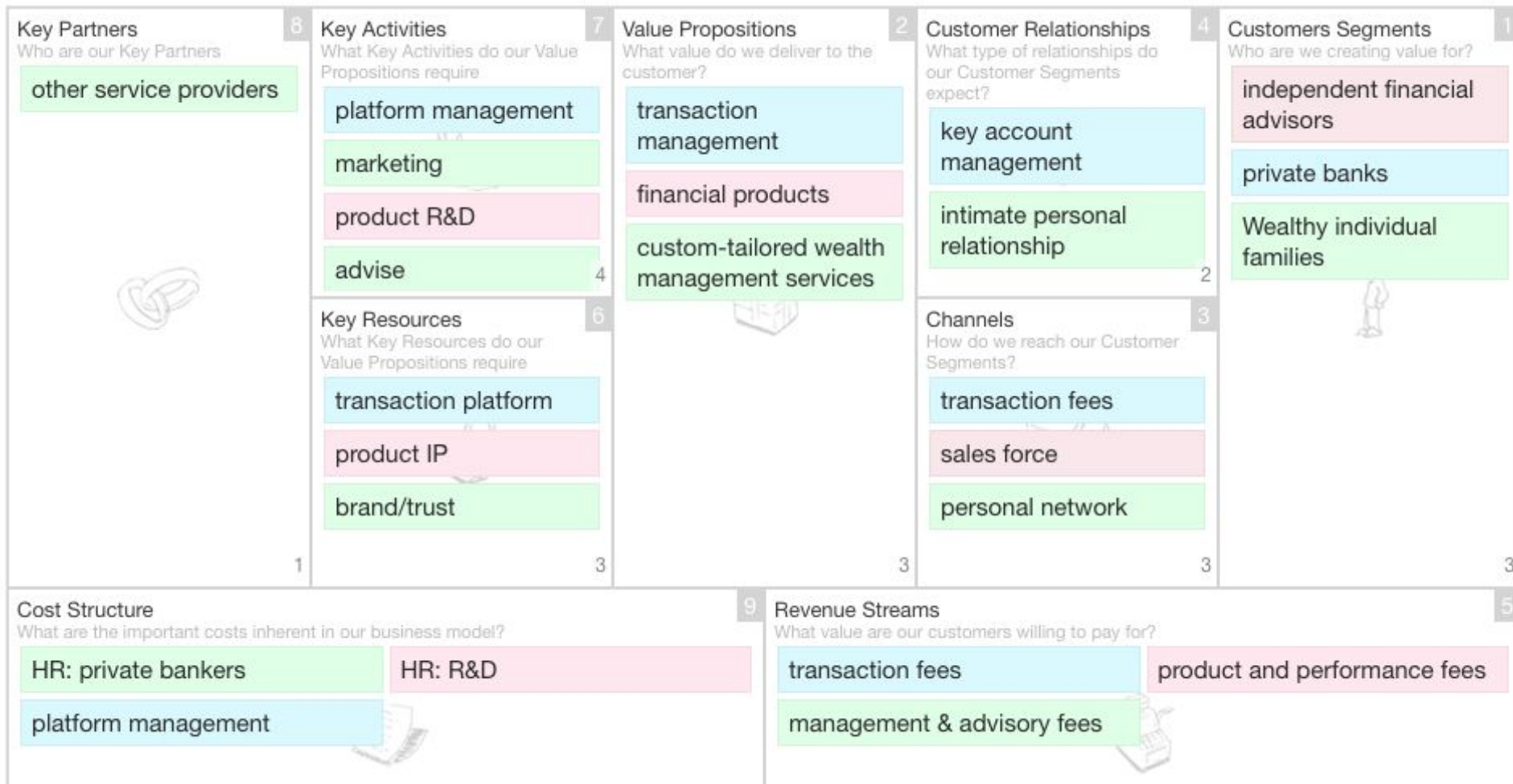
The Customer Development Process



How to make
ethics part of the
process?










Private Banking Model

a quick sample



- Need tools for **capture and reflection of ethical implications** within highly iterative data hungry, test & pivot innovation processes
- Ethics Canvas is a **reflective, unmediated & easy-to-use** approach to the analysis of ethical issues
- Applied an **iterative, usability-driven** approach to the design of the ethics canvas
- Tested it in classroom settings with **promising results**
- Freely available:
ethicscanvas.org



<p>Individuals affected</p> <p>Who use your product or service? Who are affected by it's use? Are they men/women, of different ages, etc.?</p> <p> 1</p>	<p>Behaviour</p> <p>How might people's behaviour change because of your product or service? Their habits, time-schedules, choice of activities, etc.?</p> <p> 3</p> <p>Relations</p> <p>How might relations between people and groups change because of your product or service? Between friends, family-members, co-workers, etc.?</p> <p> 4</p>	<p>What can we do?</p> <p>What are the most important ethical impacts you found? How can you address these by changing your design, organisation, or by proposing broader changes?</p> <p> 9</p>	<p>Worldviews</p> <p>How might people's worldviews be affected by your product or service? Their ideas about consumption, religion, work, etc.?</p> <p> 5</p> <p>Group Conflicts</p> <p>How might group conflict arise or be affected by your product or service? Could it discriminate between people, put them out of work, etc.?</p> <p> 6</p>	<p>Groups affected</p> <p>Which groups are involved in the design, production, distribution and use of your product or service? Which groups might be affected by it? Are these work-related organisation, interest groups, etc.?</p> <p> 2</p>
<p>Product or Service Failure</p> <p>What are potential negative impact of your product or service failing to operate or to be used as intended? What happens with technical errors, security failures, etc.?</p> <p> 7</p>		<p>Problematic Use of Resources</p> <p>What are potential negative impacts of the consumption of resources relating to your project? What happens with its use of energy, personal data, etc.?</p> <p> 8</p>		



ONLINE
ETHICS
CANVAS

Canvas Title

F-Social



Collaborators (1 active)



Dave Lewis ▾

Saved Tags for This Canvas

F-social

Users

data

ethic

individual

law

rating

service

Individuals Affected



Users of any service using the API or service provided by F-social



Any individual that is tagged or identified by F-social through updates, posts, or pictures



Users of F-social



Any holder of ID that is used

Behaviour



Incentive to post more on F-social



Incentive to post only positive things or those that increase rating



Acceptance of invasion of privacy by services, and those that use the services



Tag selected term

What can we do?



Be more open about the use-cases of data



Have a continuous ethics assessment



Investigate stronger laws and how they can continually evolve



Encourage discussion of

Group Conflicts



Natural resentment between groups based on perceived superiority over ratings



Employers might see the right to demand ratings as private information



Tag selected term

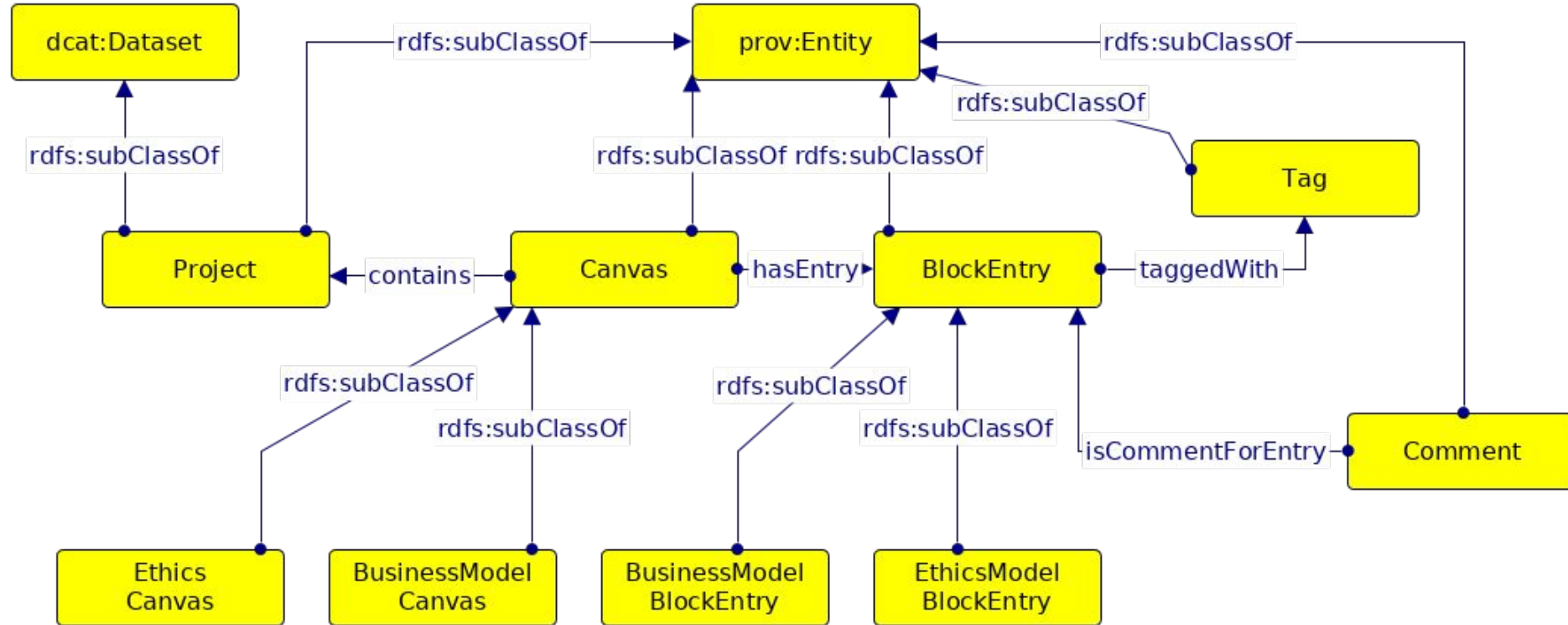
Add an idea



6

- Online version offers basic sharing of whole canvas and linking via plain text tags
 - No federation of repositories
 - No support for structuring tags
- Linked Data for sharing analyses and best practice
 - Ex-ante: share and link technology ethics analyses between researchers
 - Intra: Systematic process for ethical analysis and organisational learning,
 - Ex-post: Evidence gathering and issue generalisation for public policy studies, organisation logs for future scrutiny





PROV-O

- Track changes over iterations of canvas
- Track multi-stakeholder engagement in a canvas

DCAT as basis for sharable data



- The need for ethical consideration of the impact of Big Data and AI is clear
- BUT we lack tools and best practice – ethic canvas is an early approach
- The structure and tag sharing of the online canvas points to a way of sharing case studies and experience with innovation Ethics as interlinked Structured Data
- Future tools could further populate such data sets.
 - Have started using name entity recognition and text classification to highlight stakeholder classes, specific organisations, resources and technologies
 - Widen to structured data capture for other innovation ethics

