What to expect when you’re expecting:
the role of unexpectedness in computationally evaluating creativity

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Observer-centric creativity evaluation vs Artefact-centric creativity evaluation
Novelty occurs when an artefact violates expectations about the scope of the domain.

$P$-novel vs $H$-novel
Transformational creativity occurs when a novel event forces a restructuring of knowledge about the domain.

Impact vs Likelihood
Surprise occurs as a response to confident violated expectations. 

unexpectedness given...

...release date (Maher and Fisher 2012)
...classification (Macedo and Cardoso 2001)
...attribute relationships (Grace, Maher, Fisher and Brady 2014)
Expectations of what?
Is the expectation creativity-relevant?

“I did not expect that artist to be the creator of this.”
What about the artefact is being predicted?

“A mobile phone will fit in the palm of my hand”
Do the expectations apply to the entire creative domain?

“Smartphones have apps”
How is unexpectedness measured?
Are the expectations temporal?

“It was ahead of its time”
Literary unexpectedness
Literary unexpectedness
Analogical unexpectedness
Analogical unexpectedness
Expectation should not subsume other factors, but it can help operationalise them.

Observer-centric evaluation requires social embedding to evaluate “H”-creativity.
Workshop on evaluating creativity at DCC:
“Computable Design Creativity Metrics”
tinyurl.com/computablecreativity
Design unexpectedness
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