E-Gov Maturity Models: A comparative Study

Prof. Aires Rover
Disciplina de e-gov e inclusão digital - UFSC

Modelos de Maturidade

- O que são?
- Tipos:
  - Governamentais
  - Abordagem Holística
  - Abordagem evolucionista (foco do artigo)

Estrutura do artigo

- Descreve os modelos de maturidade encontrados na literatura (revisão sistemática).
- Compara os modelos (25 modelos listados pelo artigo)
- Conclui com a necessidade de um modelo de maturidade que incorpore o melhor de cada modelo analisado

Resumo / compilação dos estágios encontrados

- Presença
- Interação
- Transação
- Integração Vertical
- [e-]Participação
- Melhoria contínua

Nomes dos estágios dos modelos analisados

Table 1. Maturity models' stage names.

Model \ Stage	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6
Layne and Lee [4]	Catalogue	Transaction	Vertical integration	Horizontal integration	NA	NA
Andersen and Henriksen [5]	Cultivation	Extension	Maturity	Revolution	NA	NA
United Nation [6]	Emerging information services	Enhanced information services	Transactional services	Connected services	NA	NA
Alhomod *et al*. [7]	Presence on the web	Interaction between the citizen and the government	Complete transaction over the web	Integration of services	NA	NA
Hiller and Belanger [8]	Information	Two way communication	Transaction	Integration	Participation	NA
Almazan and Gil-Garcia [9]	Presence	Information	Interaction	Transaction	Integration	Political Participation
Cisco [10]	Information interaction	Transaction efficiency	Transformation citizen centric	NA	NA	NA
Gartner group [11]	Web presence	Interaction	Transaction	Transformation	NA	NA
West [12]	Bill-board	Partial-service-delivery	Portal	Interactive democracy	NA	NA
Moon [13]	Simple information dissemination	Two-way communication	Service and financial transactions	Integration	Political participation	NA
World Bank [14]	Publish	Interact	Transact	NA	NA	NA
Deloitte and Touche [15]	Information publishing	Official-two way transactions	Multipurpose portals	Portal personalization	Clustering of common services	Full integration and enterprise transaction
Howard [16]	Publish	Interact	Transact	NA	NA	NA

Número de estágios; ano e país

Table 2. Maturity models' stage numbers, year and country.

Maturity model	Number of stages	Year	Country
United Nations	4	2012	UN member state countries
Alhomod	4	2012	-
Lee and Kwak	5	2012	US
Chen	3	2011	China
Kim and Grant	5	2010	-
Almazan and Gil-Garcia	6	2008	Mexico
Shahkooh	5	2008	-
Cisco	3	2007	-
Andersen and Henriksen	4	2006	Denmark
Siau and Long	5	2005	-
West	4	2004	US
Reddick	2	2004	US
World Bank	3	2003	-
Accenture	5	2003	Canada, Singapore, United States, Denmark, Australia, Finland, Hong Kong, United Kingdom, Belgium, Germany, Ireland, France, The Netherlands, Spain, Japan, Norway, Italy, Malaysia, Mexico, Portugal, Brazil and South Africa
Chandler and Emanuel	4	2002	-

Foco de cada estágio

Maturity stage	Focus	Maturity models
1	Presence	All models expect Andersen and Henriksen and Wescott
2	Interaction	Alhomod, Hiller and Belanger, Gartner, Moon, World Bank, Deloitte and Touche, Howard, Shahkooh, Siau and Long, Chandler and Emanuel, Kim and Grant and Windley.
	Enhanced information	UN, Almazan and Gil-Garcia and UK.
	Transaction	Layne and Lee, Cisco, Chen and Reddick.
3	Transaction	UN, Alhomod, Hiller and Belanger, Gartner, Moon, World Bank, Howard, Shahkooh, Siau and Long, Wescott, Chandler and Emanuel and Kim and Grant.
	Interaction	Almazan and Gil-Garcia.
	Integration (transformation, single point of entry)	Layne and Lee, Cisco, West, Deloitte and Touche, Chen and Windley.
4	Integration (transformation)	Layne and Lee, Andersen and Henriksen, UN, Alhomod, Hiller and Belanger, Gartner, Moon, Shahkooh, Siau and Long, Chandler and Emanuel, Kim and Grant, and Windley.
	Transaction	Almazan and Gil-Garcia, UK and Netchaeva.
	Personalization	West, and Deloitte and Touche.
5	E-participation (political participation)	Hiller and Belanger, Moon, Shahkooh, Siau and Long, Wescott, Kim and Grant and Netchaeva.
	Integration	Almazan and Gil-Garcia, Deloitte and Touche and UK.
6	Political participation	Almazan and Gil-Garcia.
	Integration	Deloitte and Touche, and Wescott.

Características contidas em cada Modelo de maturidade I

Table 4: Features coverage per each maturity model

Stages / Features	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5 and above
One stop shop			West MM, Deloitte & Touche MM	(Layne & Lee, 2001), (Hiller & Belanger, 2001), (Shahkooh *et al*., 2008), (Siau & Long, 2005)	(Almazan & Gil-Garcia, 2008), (Wescott, 2001), (N.A.O., 2002), (Netchaeva, 2002)
Customer Centricity			Deloitte & Touche MM, Accenture MM	(Andersen & Henriksen, 2006), (United-Nations, 2012), (Almazan & Gil-Garcia, 2008), (Windley, 2002)	(Rohleder & Jupp, 2003)
Interoperability	Andersen & Henriksen MM		(Layne & Lee, 2001), (Cisco IBSG, 2007), (Chen *et al*., 2011), (Rohleder & Jupp, 2003)	(United-Nations, 2012), (Alhomod *et al*., 2012), (Hiller & Belanger, 2001), (Baum & Di Maio, 2000), (Moon, 2002), (Shahkooh *et al*., 2008), (Lee & Kwak, 2012), (Siau & Long, 2005), (Chandler & Emanuels, 2002), (Kim & Grant, 2010), (Windley, 2002), (Layne & Lee, 2001)	(Almazan & Gil-Garcia, 2008), (Deloitte Consulting & Deloitte & Touche, 2000), (Lee & Kwak, 2012), (Wescott, 2001), (N.A.O., 2002)
Personalization	Cisco MM	Andersen & Henriksen MM	(Andersen & Henriksen, 2006), (Almazan & Gil-Garcia, 2008), (Cisco IBSG, 2007), (Siau & Long, 2005), (N.A.O., 2002)	(Almazan & Gil-Garcia, 2008), (Baum & Di Maio, 2000), (West, 2004), (Deloitte Consulting & Deloitte & Touche, 2000), (N.A.O., 2002)	(Deloitte Consulting & Deloitte & Touche, 2000)

Payments		Cisco MM, Deloitte & Touche MM, Windley MM, Reddick MM	(United-Nations, 2012), (Alhomod *et al*., 2012), (Hiller & Belanger, 2001), (Baum & Di Maio, 2000), (Moon, 2002), (Howard, 2001), (Shahkooh *et al*., 2008), (Siau & Long, 2005), (Deloitte Consulting & Deloitte & Touche, 2000), (Kim & Grant, 2010)	(Almazan & Gil-Garcia, 2008), (Wescott, 2001), (Windley, 2002), (N.A.O., 2002), (Netchaeva, 2002)	(Wescott, 2001)
E-participation		Layne & Lee MM, Hiller & Belanger MM, Moon MM, World Bank MM, Howard MM, Lee & Kwak MM, Windley MM	(United-Nations, 2012), (Almazan & Gil-Garcia, 2008), (Cisco IBSG, 2007), (Lee & Kwak, 2012), (Wescott, 2001), (Netchaeva, 2002)	(United-Nations, 2012), (West, 2004), (Lee & Kwak, 2012), (Rohleder & Jupp, 2003)	(Hiller & Belanger, 2001), (Almazan & Gil-Garcia, 2008), (Moon, 2002), (Shahkooh *et al*., 2008), (Siau & Long, 2005), (Lee & Kwak, 2012), (Wescott, 2001), (Kim & Grant, 2010), (Netchaeva, 2002)