

Some time ago in a galaxy actually
not so far away...

THE PUBLIC ORGANIZATIONS AWAKEN

A **STAR WARS** STORY

The Global Innovation Index 2017

Innovation Feeding the World

TENTH EDITION



#1

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WE ARE GREAT, BUT...



#64



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...DIGITIZING PAPER FORMS AND MAKING THEM ACCESSIBLE ON A WEBSITE IS NOT A GREAT ONLINE EXPERIENCE

Automobile

Changement nom /
adresse

Permis de conduire

Examens

Retrait de permis /
avertissement

Plaques
d'immatriculation

Permis de circulation
(carte grise)

Importation de véhicules

Expertises (contrôles
techniques)

Modifications techniques
(tuning, jantes,
accessoires etc..)

Véhicules spéciaux et
autorisations spéciales

Véhicules vétérans

Véhicules électriques

Personnes à mobilité
réduite

Espace professionnel


Taxe / tarifs

Formulaires

Liens et statistiques

Formulaires





Afin de pouvoir ouvrir les formulaires sur Mac Os X 10.6 et plus, nous vous conseillons d'utiliser la dernière version d'Adobe Reader. ➡ [Cliquez sur ce lien pour l'obtenir.](#)

Si toutefois vous ne parvenez pas à ouvrir les formulaires, veuillez cliquer  [ici](#) pour obtenir la procédure.

Nom du formulaire	<input type="text"/>	Numéro	<input type="text"/>
Concerne	<input type="text" value="Tous"/>		
<div>Chercher Annuler</div>			

Résultats de 1 à 15 sur 85

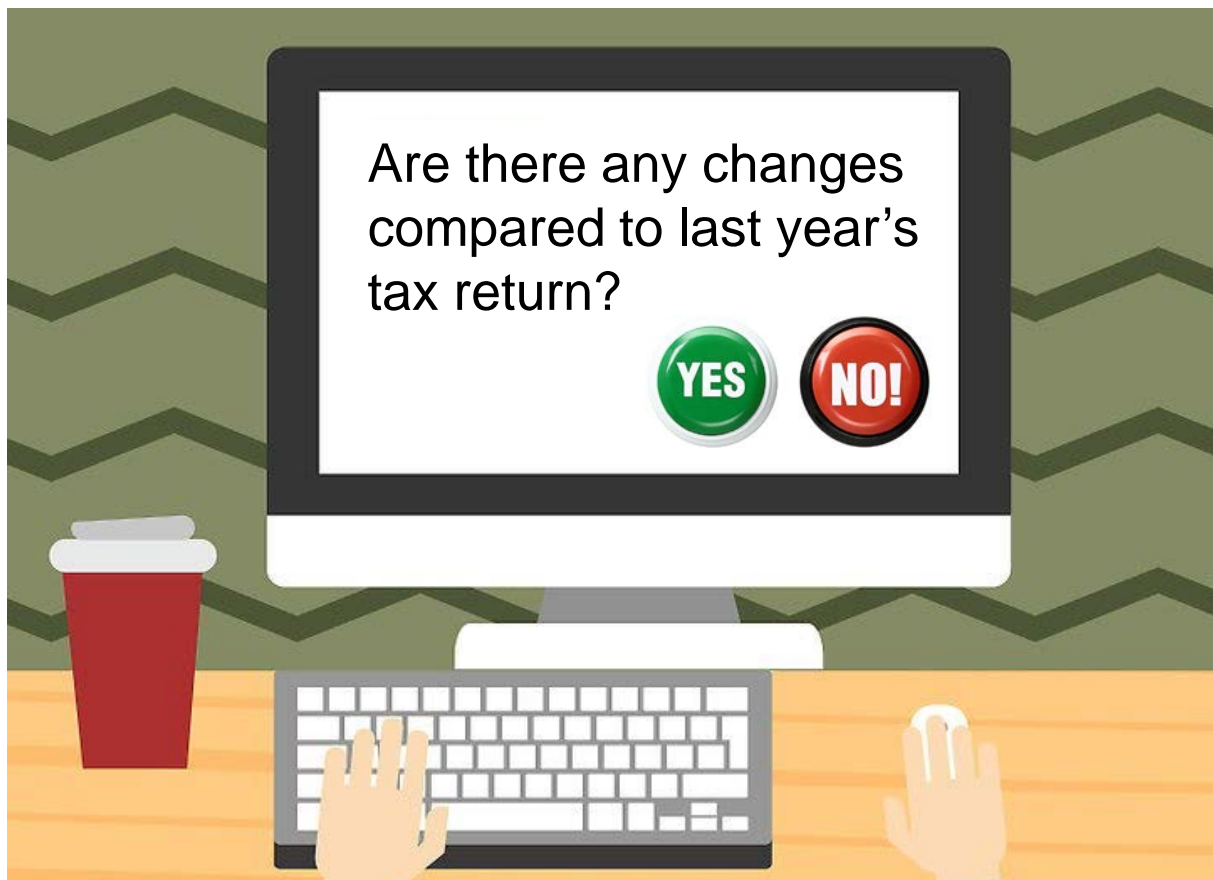
1 2 3 4 5 6 >>

Numéro	Nom du formulaire	Secteur concerné
211	 Demande d'immatriculation - cession de plaques	Plaques d'immatriculation Permis de circulation (carte grise) Espace professionnel
220	 Demande de permis d'élève conducteur ou de permis de conduire	Permis de conduire
221	 Demande / modification du permis de conduire au format carte de crédit	Permis de conduire Retrait de permis / avertissement
338	 Demande de remplacement de permis / plaques & Déclaration de vol d'un véhicule et des plaques	Plaques d'immatriculation Permis de circulation (carte grise) Expertises (contrôles techniques)

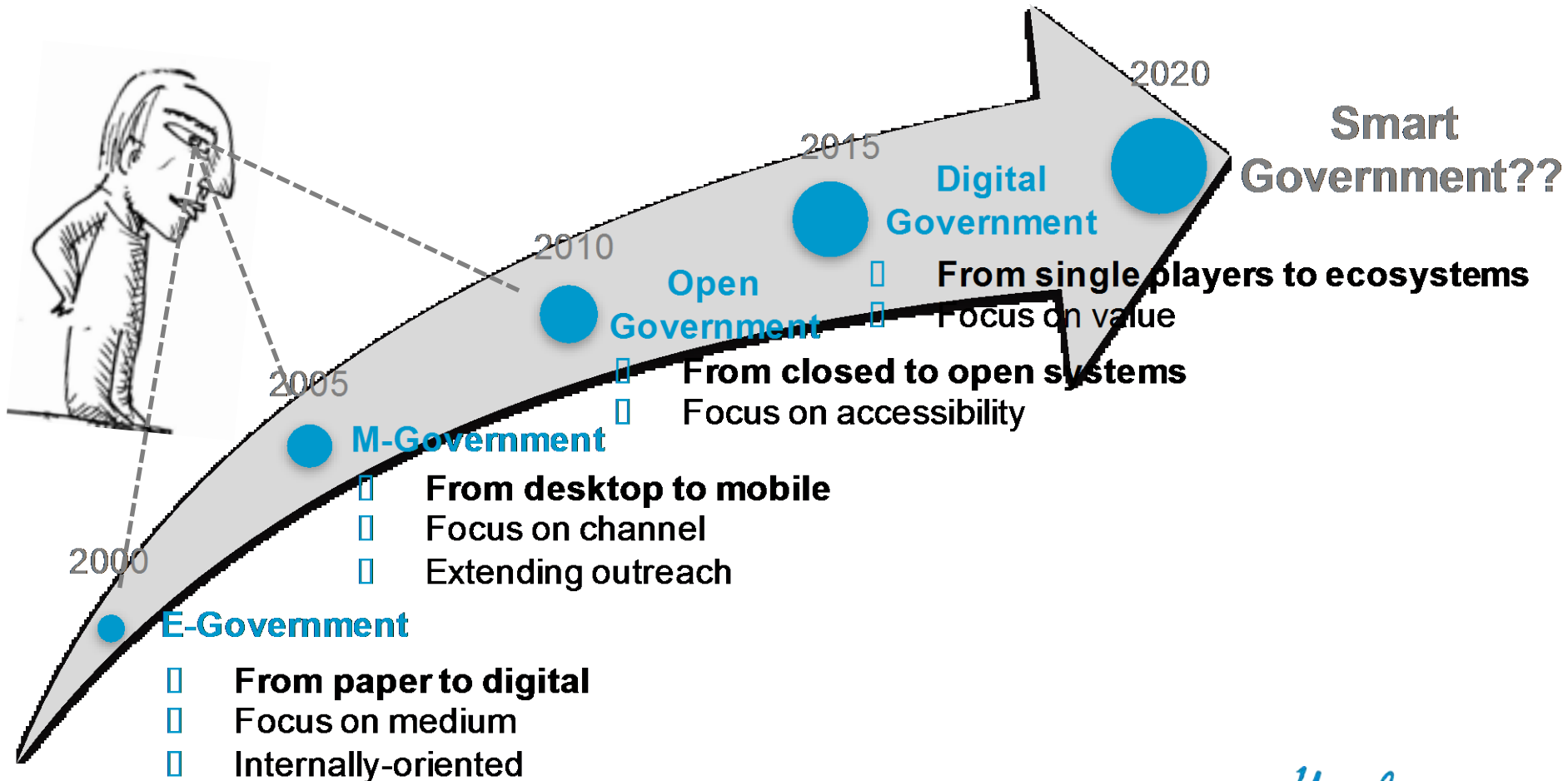
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IMAGE YOU DON'T HAVE TO FILL IN TAX RETURNS ANYMORE



WHY ARE WE NOT DOING IT? WE STILL STICK WITH OLD THINKING PATTERNS

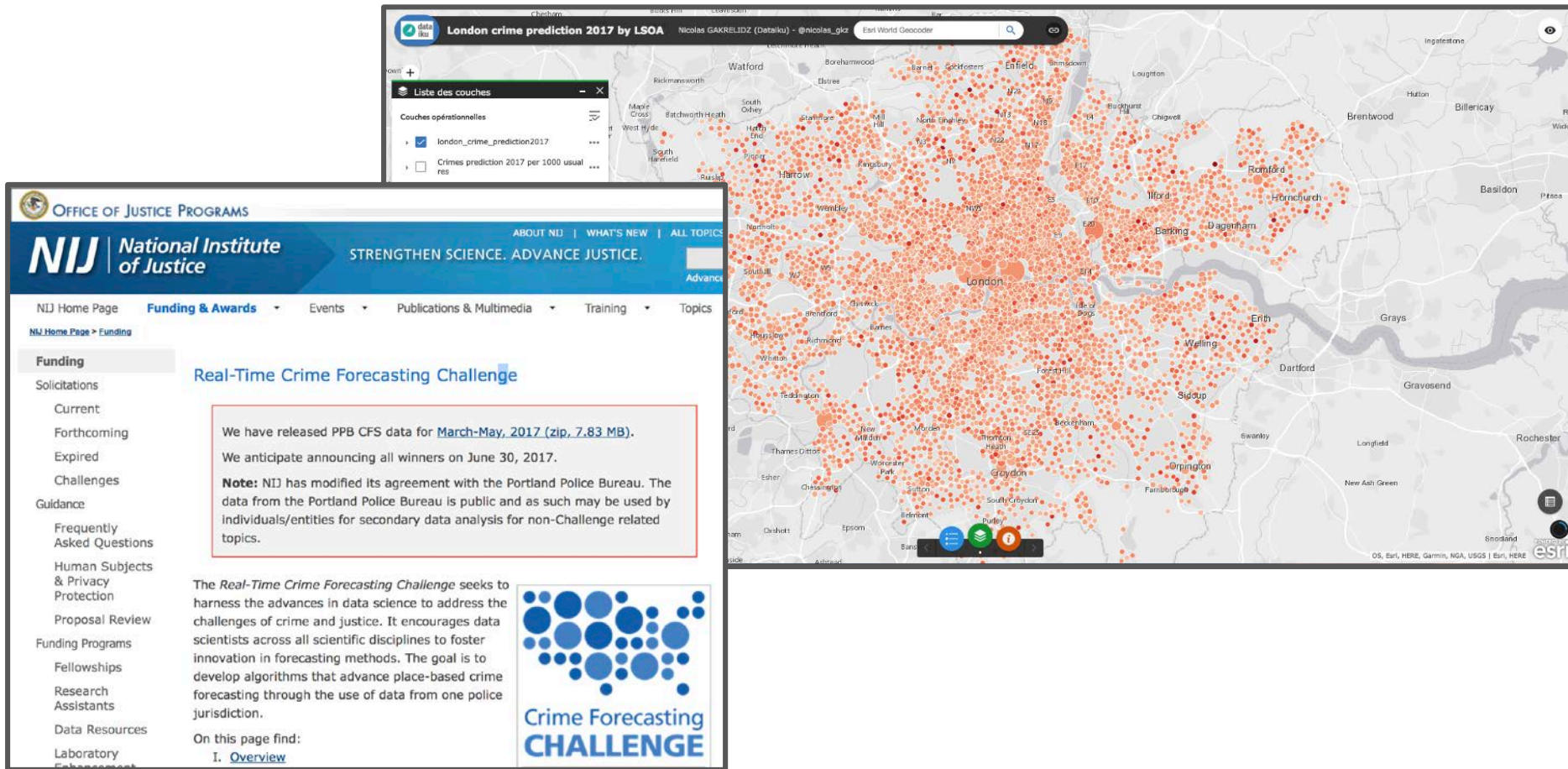


WHAT IS SMART GOVERNMENT?

Some frequently mentioned characteristics:

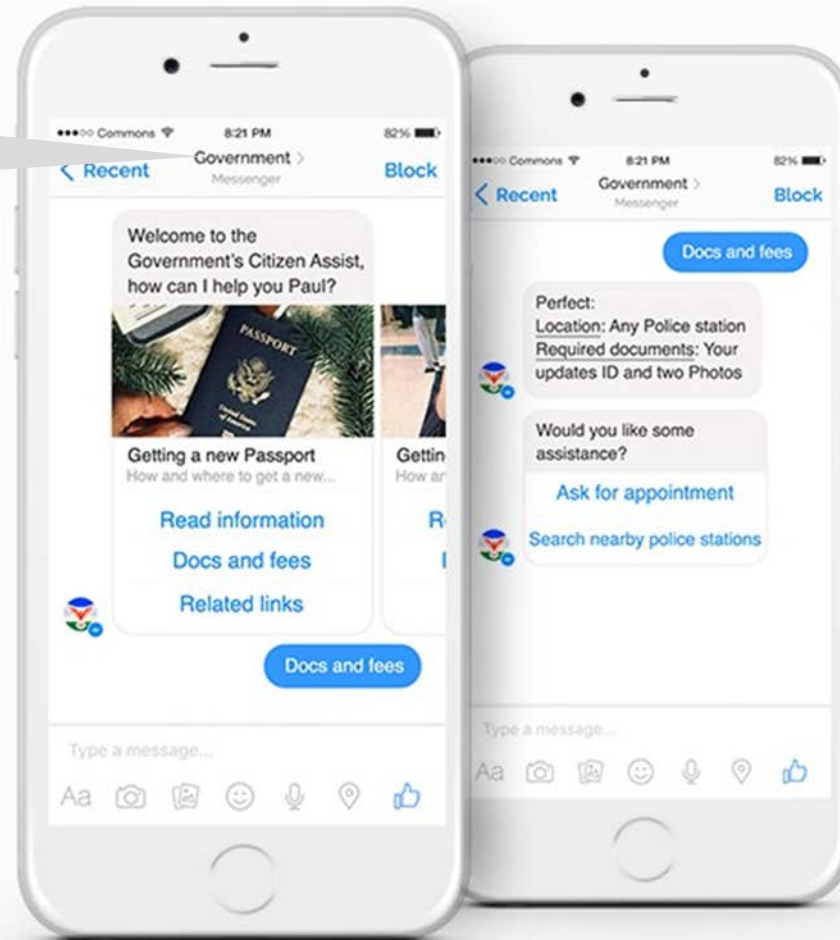
- > **Integration**: Fusion of **physical** and **digital** infrastructure for the purpose of improving government action (based on IoT platforms)
- > **Smartness**: **Anticipation** of events (based on predictive analytics on « big data »)
- > **Personalization**: **Contextualized feedback** to physical or digital cues (based on machine-learning on « little data »)
- > **Robotization**: Automation of « **fuzzy processes** » (based on bots)
- > **Interaction**: Combination of passive and active **participation** mechanisms with citizens (based on open data and citizen engagement)
- > ...

EXAMPLE I: PREDICTIVE ANALYTICS BASED ON OPEN DATA FROM IOT DEVICES

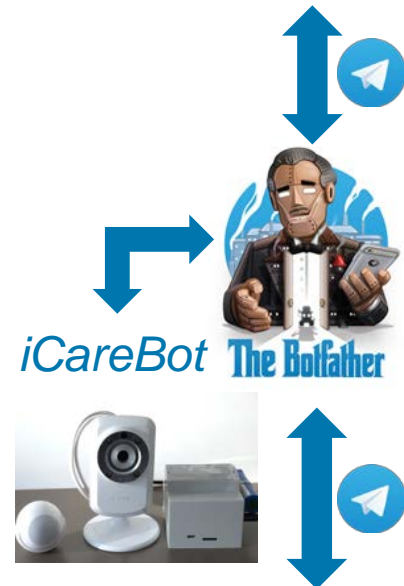
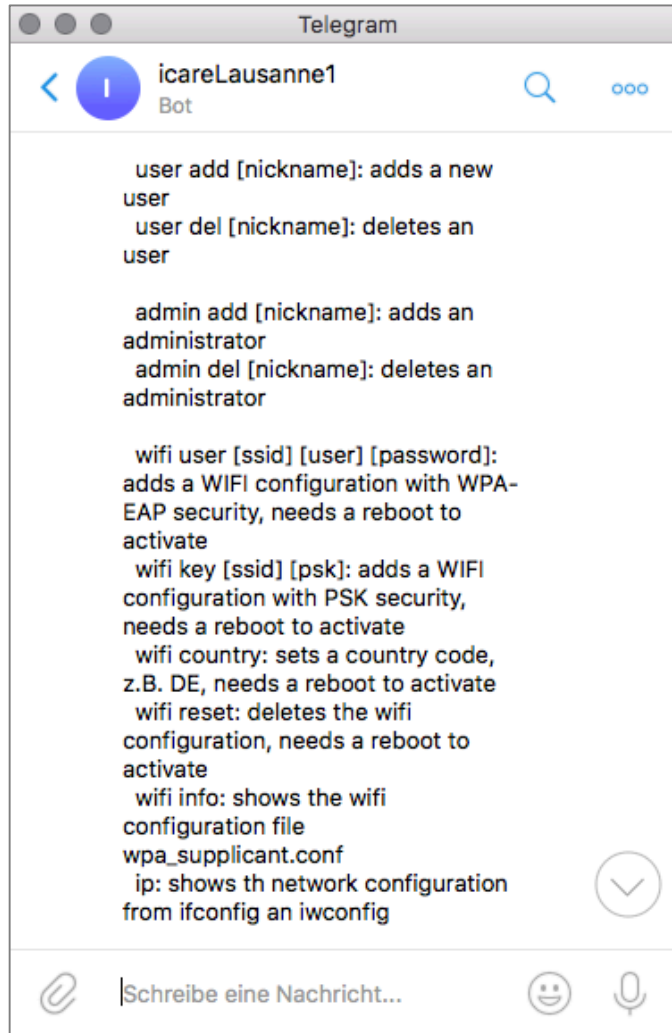


EXAMPLE II: CHATBOTS AS INTERACTION TOUCHPOINTS WITH CITIZENS

*Singapore
government
chatbot*



PLUG: COMBINING IOT WITH CHATBOTS



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HOW TO CREATE GREAT ONLINE SERVICES THAT TOUCH THE NERVES OF CITIZENS?



TWO WAYS HOW INNOVATION IS HAPPENING

Classic
innovation
perspective

- Public-private-partnerships
- IP protectionism & commercial motive
- High reliability design
- Well-planned (CE/FDA approval)
- Slow time to market

*This is what you
learn in project
management
courses*

**Decision
maker's
dilemma**

- High cost, risk, impact vs. low cost, risk, impact projects
- Regulatory control vs. quick results
- Established relationships and structures vs. unknown players and arrangements

Innovation
driven by civic
action

- Engaged citizens
- Open & altruistic motive
- Purposive design
- Exploratory (trial and error)
- Low outreach


“Grassroots”
initiatives

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ARE WE REALLY PREPARED AND WILLING TO INCLUDE CITIZENS FOR SERVICE INNOVATION?



"I'M SORRY. WHAT OTHER OPTIONS ARE THERE?"

IN EITHER WAYS, THE POINT OF DEPARTURE SHOULD BE A REAL “CITIZEN PAIN POINT”...

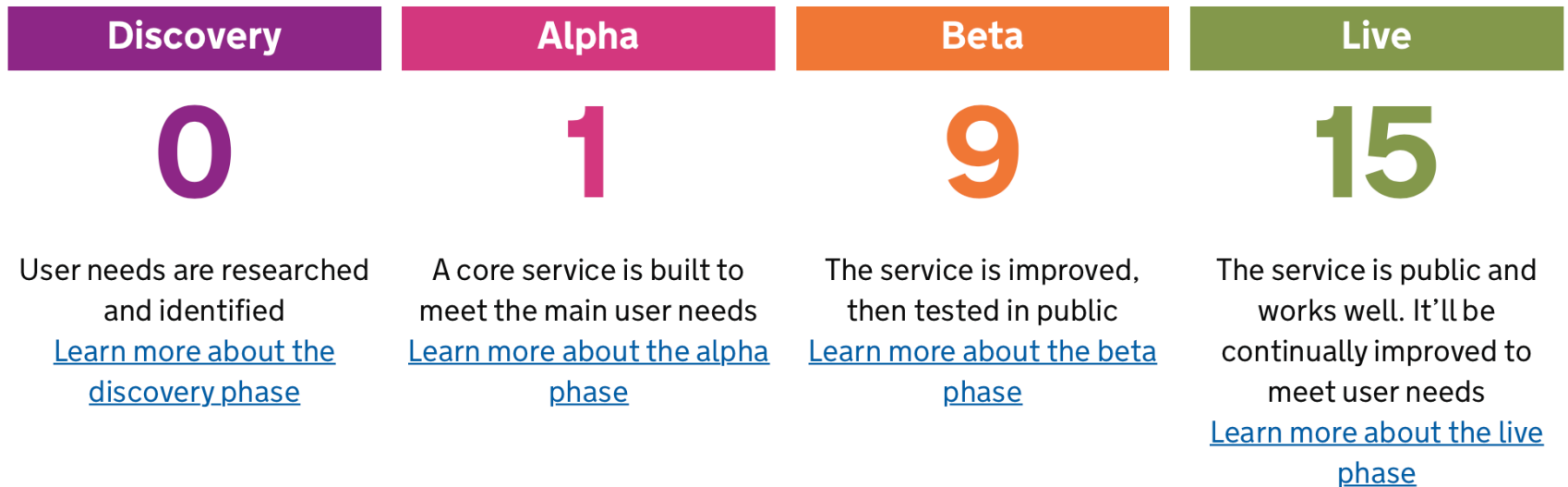
Some examples:

- > Every-day problems
 - Traffic jams, stressful situations,...
- > Getting access to personal information (i.e. information that actually should be rightfully owned and controlled by citizens)
 - without the need for physical presence to obtain information
 - without the need to make a master's degree in Law and Computer Science to understand its content and access it
- > Depositing demands or creation of requests
 - without having to search the Internet for hours to find out how to do it
 - without having to enter the same information over and over again
 - without media-breaks
 - ...



...BUT KEEP FOCUSED AND DO NOT OVERSTRAIN

- > Think big, but be pragmatic
- > Don't bet everything on one horse
- > Diversify in terms of service types (e.g. transaction-oriented vs. information-intensive services)

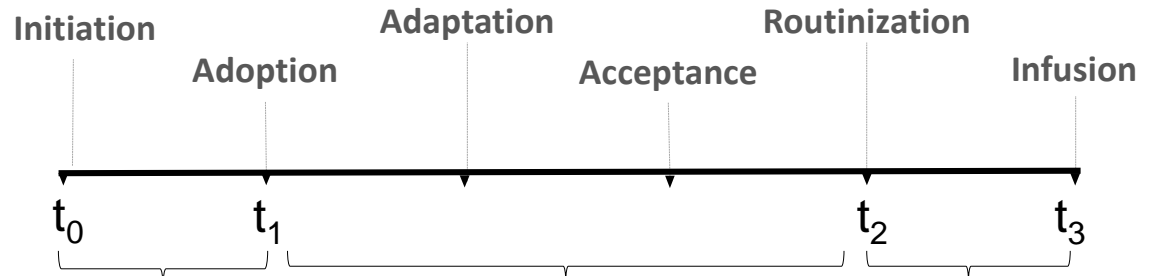
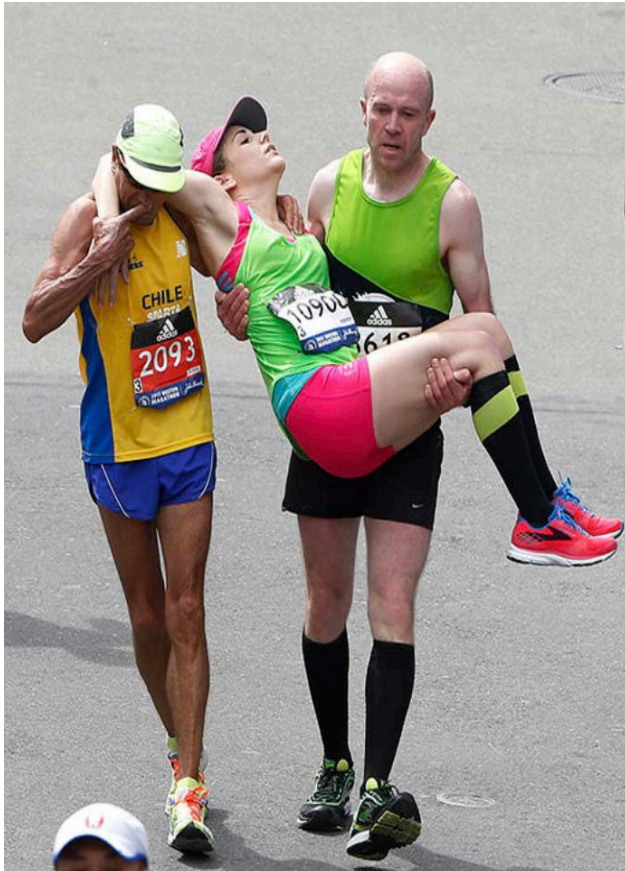


Source: UK Government. 2017. "Digital Transformation." from <https://www.gov.uk/transformation/exemplars>

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DEVELOPING GREAT ONLINE SERVICES IS NOT A SPRINT, IT'S RATHER A MARATHON



Entry problem

What does it afford to users?

Sprint distance
(100m)

Motivation problem

How can users be encouraged to participate in a continuous way?

Medium distance
(1500m)

Utility problem

What long-term impact does it have on users?

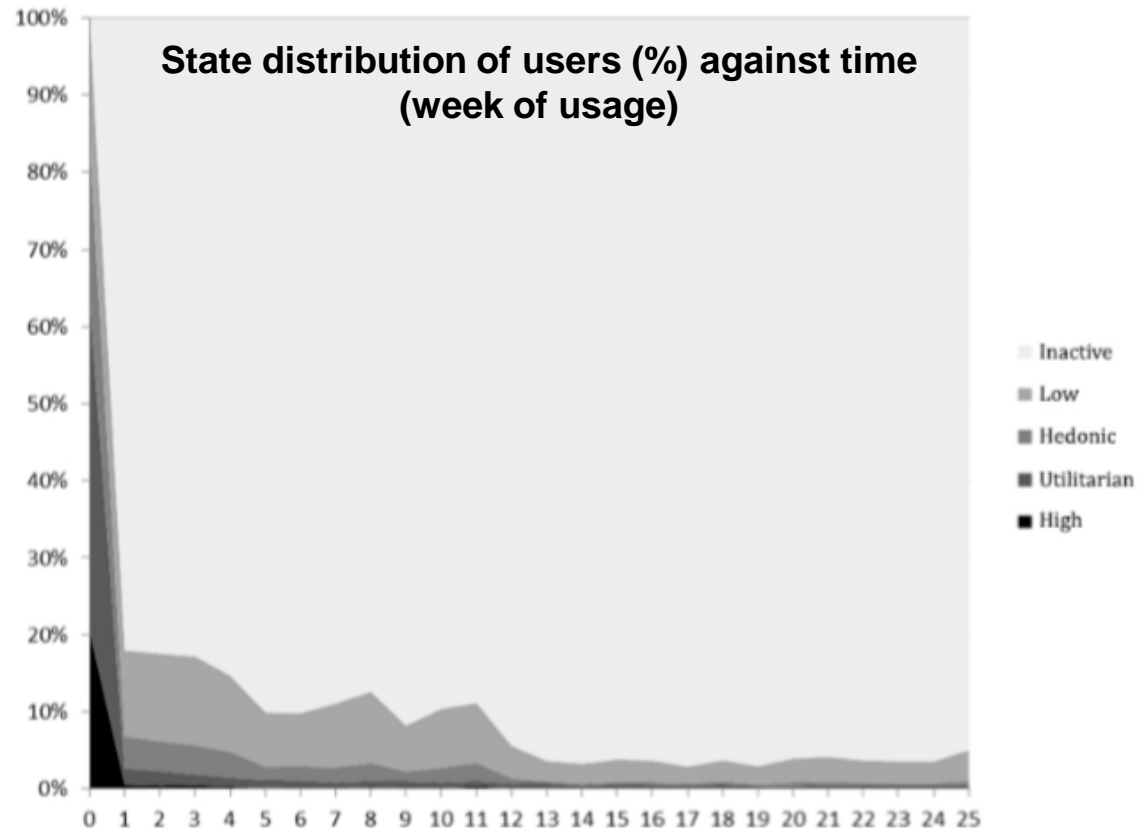
Long distance
(42 km)

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GREATEST CHALLENGE: TO KEEP USERS TO COMING BACK TO YOUR SERVICE

- > New digital services «compete» for the attention of users and against thousands of existing online and offline services
- > To be able to deliver high-quality feedback to users, a continuous participation is required
- > Even when adding some «fun elements» it is hard to keep citizens using the digital services
- > Consequently, data streams run dry in the long-run



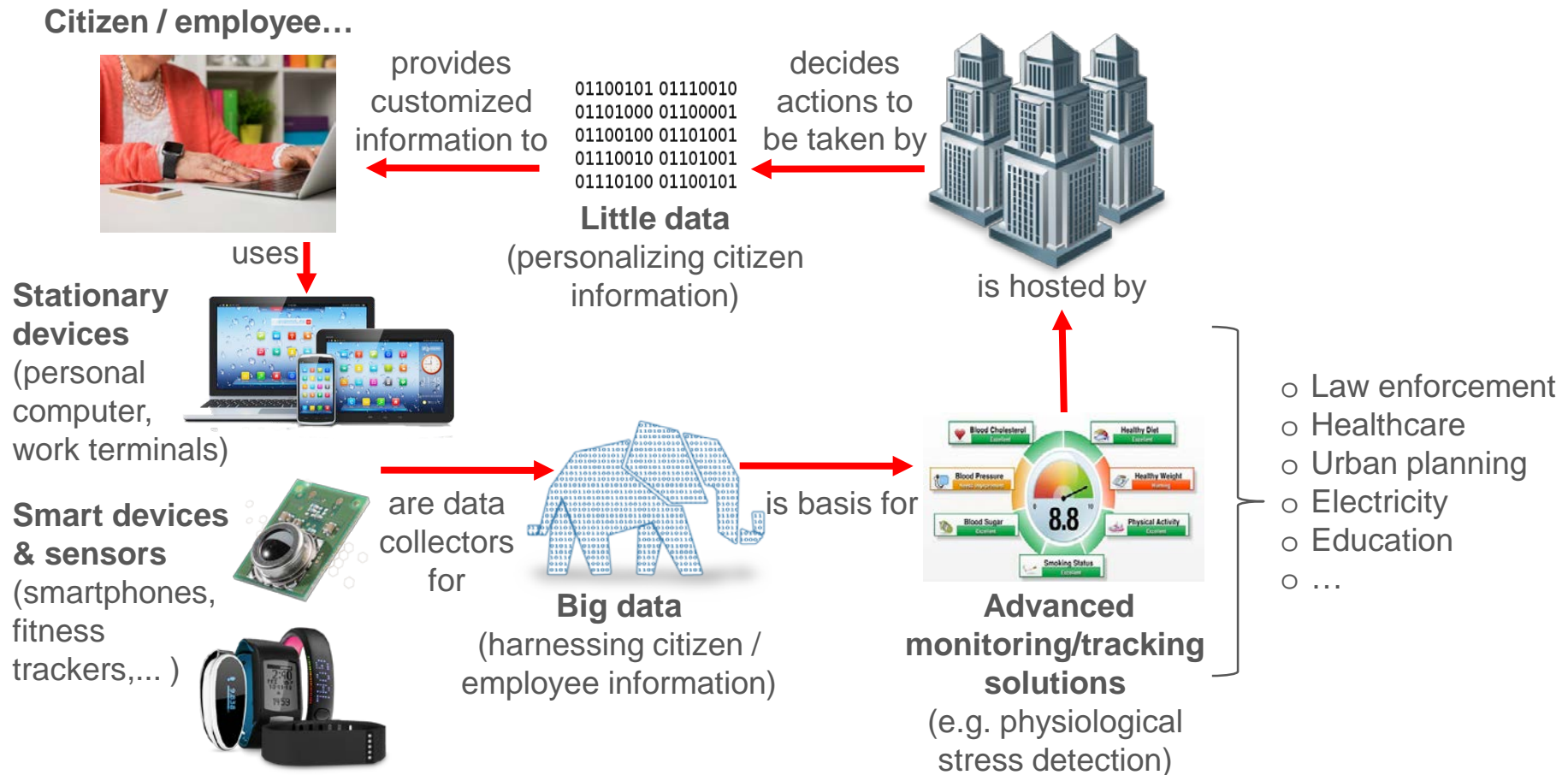
Source: Mettler, T., Wortmann, F., & Flüchter, K. (2014). How do hedonic design features influence an application's usage.

<http://aisel.aisnet.org/ecis2014/proceedings/track16/1/>

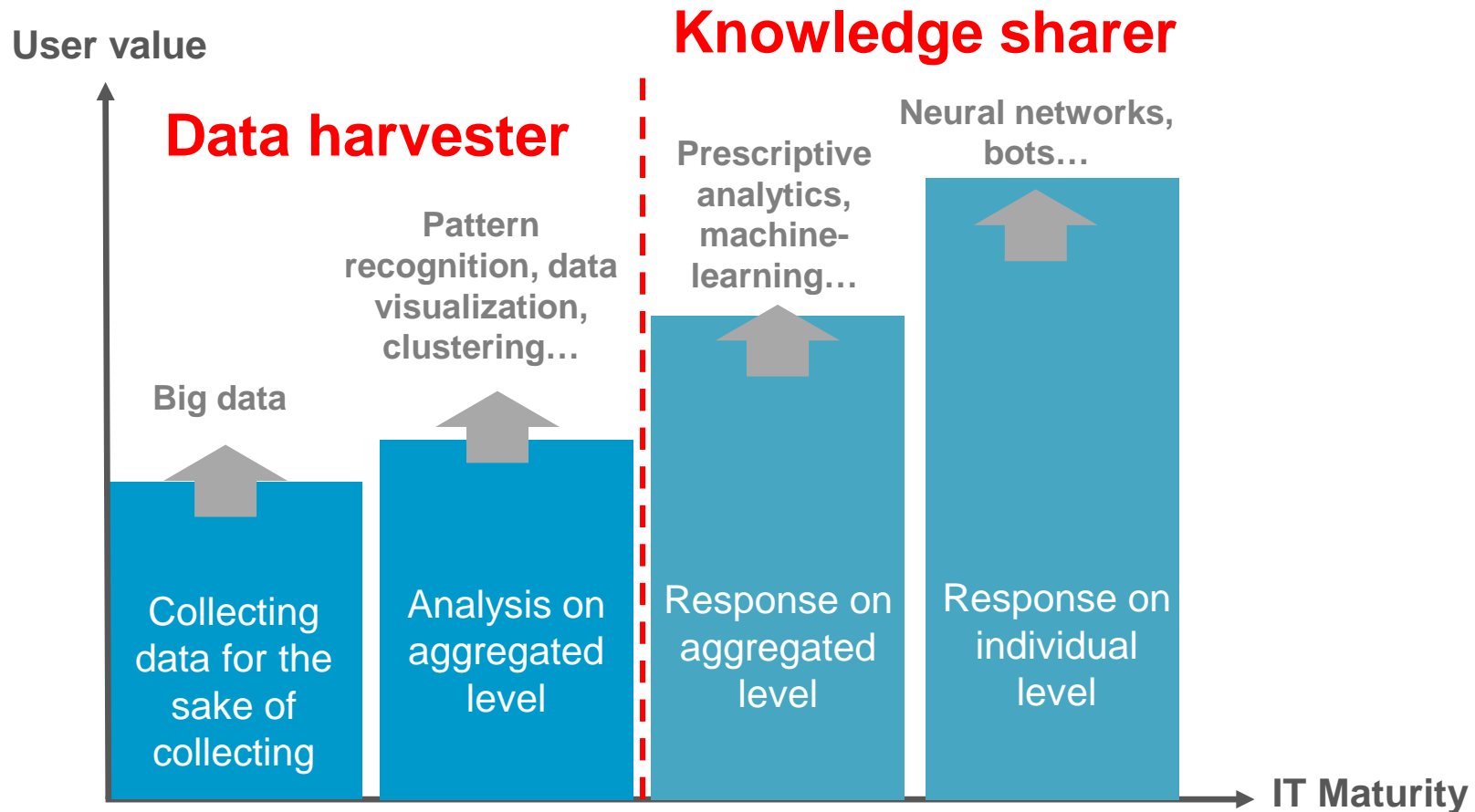
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ADVICE #1: TAKE A LIFE-CYCLE VIEW ON CITIZEN INTERACTION AND DATA SHARING



ADVICE #2: BECOME A KNOWLEDGE SHARER INSTEAD OF A PURE DATA HARVESTER

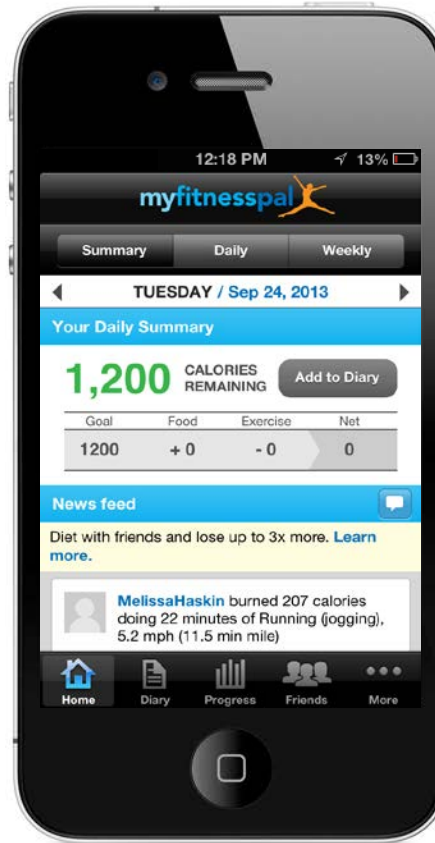


ADVICE #3: SYSTEMATICALLY THINK OF CITIZEN TOUCHPOINTS AND ENGAGEMENT

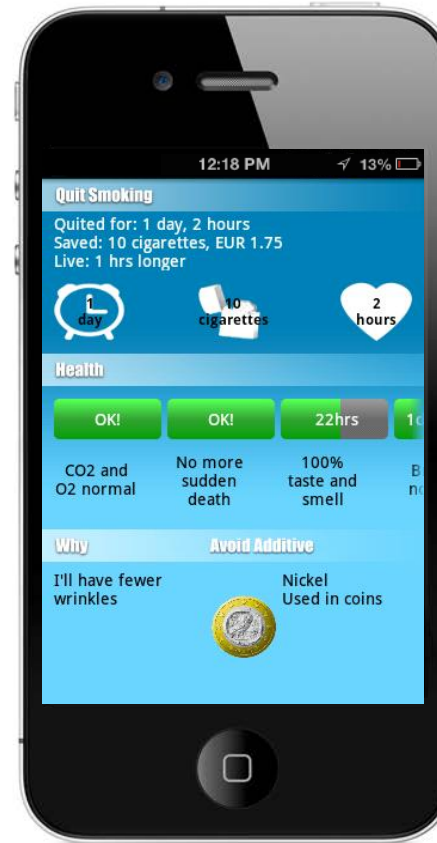
Some boring ways how to do it...



Reminders & basic advice



Comparison & peer pressure



Rationality & bad conscience

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ADVICE #3: SYSTEMATICALLY THINK OF CITIZEN TOUCHPOINTS AND ENGAGEMENT

Some more funny ways how to do it...



Source: <https://zombiesrungame.com>

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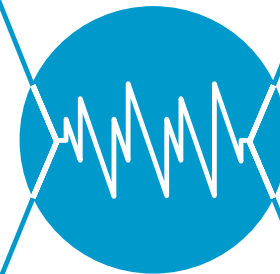
ADVICE#4: ESTABLISH A TRIAL AND ERROR CULTURE AND EXPLAIN WHY THIS IS NEEDED

“slow” speed (top-down)

- Hierarchical (policy drives digitalization)
- Well planned (technology roadmaps, technology architectures & blue prints)
- Established skills (well-known programming approaches)
- Rather long-term

“fast” speed (bottom-up)

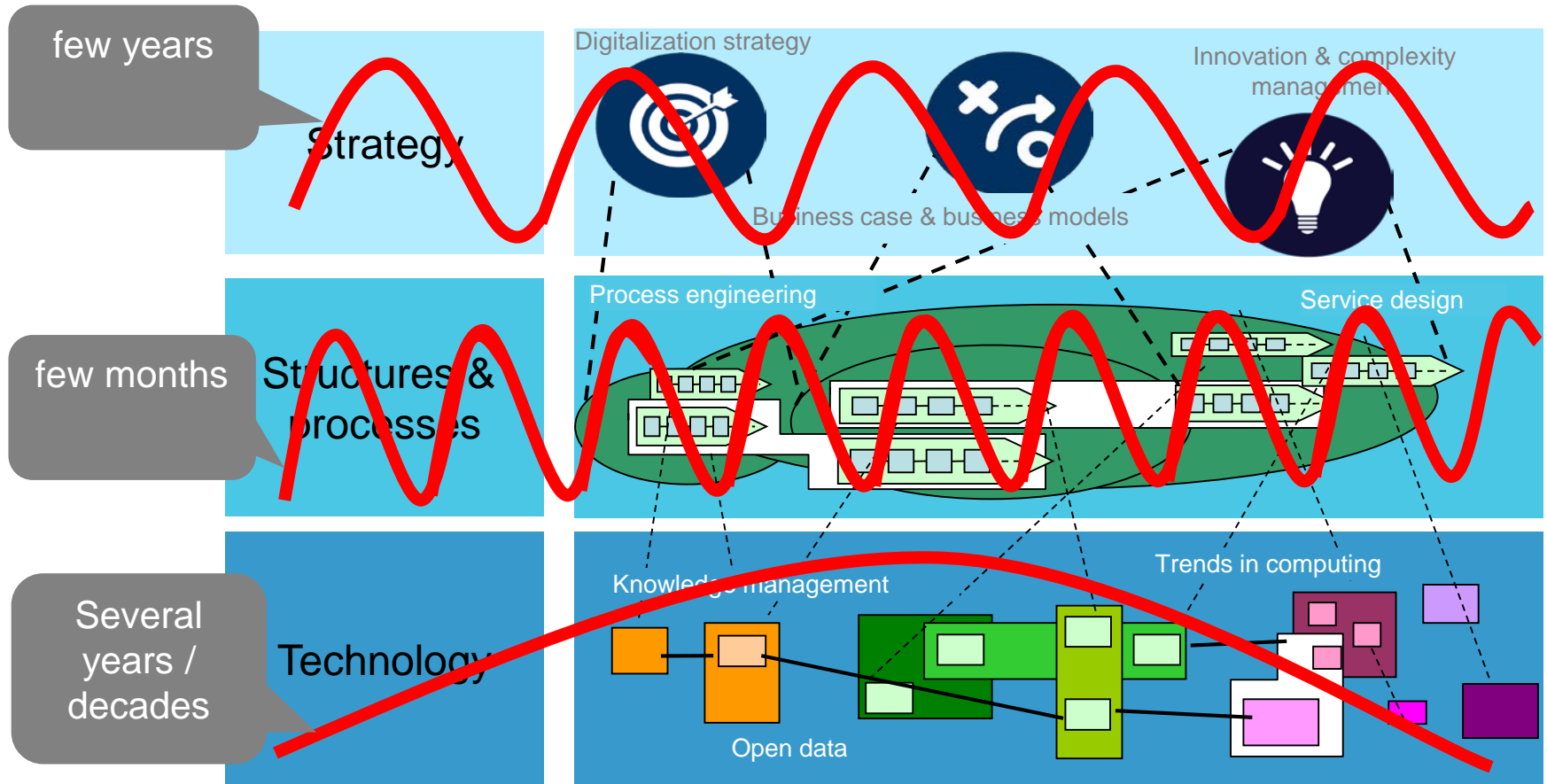
- Emergent (technological potential drives digitalization)
- Exploratory and experimental (co-creation with citizens, prototyping)
- “Unorthodox” way of working (design thinking, agile programming)
- Rather short-term



**clash of
philosophies**

Source: Gourévitch, A., et al. (2012). "Two-Speed IT." from https://www.bcgperspectives.com/content/articles/it_performance_it_strategy_two_speed_it/

ADVICE#4: ESTABLISH A TRIAL AND ERROR CULTURE AND EXPLAIN WHY THIS IS NEEDED



LAST ADVICE: KEEP TRACK OF ENGAGEMENT AND SATISFACTION LEVELS...

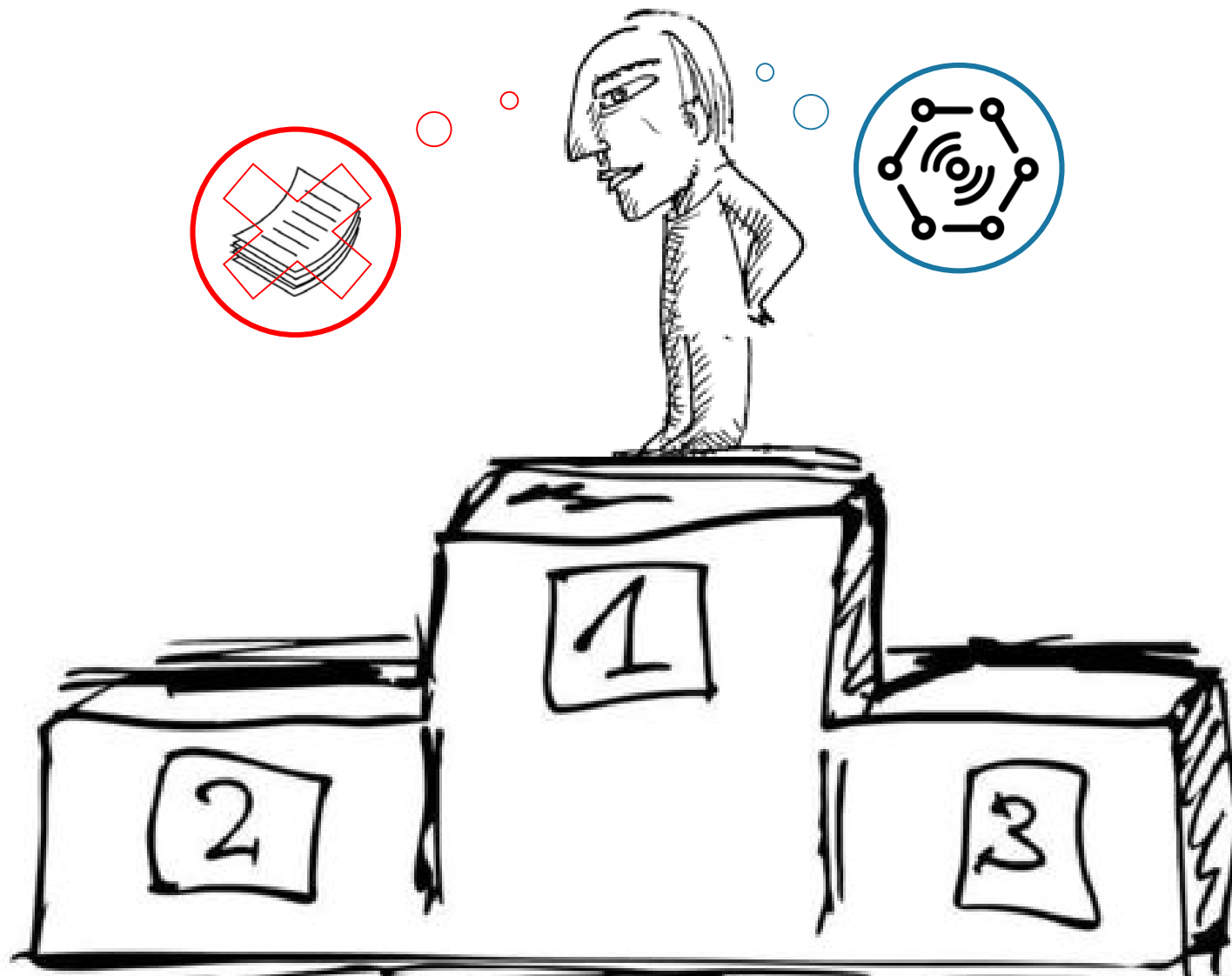


- > **RATIONAL ELEMENT** = Expected benefits from using digital service
 - **Transactional benefits** (e.g. less effort, more throughput, cheaper, ...)
 - **Informational benefits** (e.g. more information, real-time view, connected information,...)
 - **Strategic benefits** (e.g. more freedom of action, empowerment, ...)
- > **EMOTIONAL ELEMENT** = Anger, fear or envy reduction vs. sympathy and pleasure increase from using digital services
- > **HABITUAL ELEMENT** = Ability of the digital services to create new habits or change/discontinue old patterns

Source: Mettler, T. (2012). Post-acceptance of electronic medical records: Evidence from a longitudinal field study.
<http://aisel.aisnet.org/icis2012/proceedings/ITHealth/1/>

...AND BE PREPARED FOR UNANTICIPATED USE AND WORKAROUNDS





THANK YOU FOR YOUR ATTENTION



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ABOUT MY PERSON

- > Since February 2017 Associate Professor at the **University of Lausanne** and responsible for the research unit about Information Management at IDHEAP
- > 2013 - 2017 Assistant Professor at the **University of St. Gallen** and responsible for the competence center Health Network Engineering
- > 2012 - 2013 Senior Researcher at the Institute of Information Management of the University of St. Gallen and Executive Director of the PhD. program in Management
- > 2010 - 2011 Senior Research of the Internet of Services Practice at **SAP Research**
- > 2006 - 2010 Research assistant at the Institute of Information Management of the University of St. Gallen
- > 2004 - 2006 Consultant at **Solution Providers** (Synpulse AG)
- > Vice-chair of the Working group on Ambient Assisted Living of the International Medical Informatics Association (IMIA)
- > Scientific board of the Swiss IT Benchmarking Community in health care



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INFORMATION MANAGEMENT @IDHEAP



New research unit at the IDHEAP since February 2017 with currently 4 team members

Research, education and consulting related to

- > **Smart Health:** Use of sensor-based systems for health monitoring outside of public health institutions, privacy-aware tracking of patients...
- > **Smart Government:** Application scenarios of algorithmic decision-making in the public administration, use of sensor-based systems for real-time monitoring, improvement of citizen participation with IT, alternative IT innovation strategies...
- > **Value of Information Technology:** Development of optimization and assessment methods for measuring value of IT services, maturity models, new and alternative forms of digital business models,...
- > **Open Data:** Open platforms and standards, two-sided markets, new services based on open data, civic action-driven innovation ...

Current research projects:

- > **Physiolytics:** Application of biosensors at the workplace for occupational health prevention (SNF-funded project)
- > **iCare:** Application of smart IT for increasing the autonomy of people with increased need of care (EU / Interreg-funded project)

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