CSPS Technology Integration Projects Business Case

Stephen Dwnes

March 24, 2017

National Research Council Canada   Conseil national de recherches Canada

Overview

- Integrated set of proposed activities:
  - performance support and resource recommendation services
  - an expansion of events and subscription-based learning
  - pilot collaborative rapid resource authoring and curation
  - integration of programs and services with other government platforms
- Duration of 3 years (outcomes for an additional 3 years)
  - staffing is between 12.5 and 15.5 FTE
  - $4.41 million over three years
  - IT staff, instructional designers, program development staff, needs analysis and assessment.

The Challenge

- Evolving model of online learning support
  - from classes to mobile support, personalization and crowd-sourcing
  - example: Accenture Connected Learning
- Expansion of GoC intranet support
  - Gctools (GCconnect, GCcollab, GCpedia, etc.)
- Requirement to follow-up development of GCcampus
  - CSPS identified five areas for program
  - mobile, personalization, integration with GCtools, crowdsourcing and virtual library.

Analysis

- CSPS has made significant progress extending its platform beyond the LMS (to include Drupal, Moodle, Kaltura)

- The school's structural and service orientation has not aligned to new technologies and pedagogies.

- Analyst Recommendations:
  1. define and align to a contemporary model of online learning support
  2. conduct an incremental, rather than a rapid expansion of any individual service

Contemporary model of learning support

- Need for staff and learners to work with and understand new learning pedagogies as part of the process of developing a consensus
- Need to reassess its development cycle and model in order to support rapidly changing needs
- Needs to integrate a process of continuous needs generation and performance assessment into learning program development and delivery.

Incremental rather than a rapid expansion

- The school has not yet had time to implement the new functionality that has already been installed

- Changes in the wider learning technology infrastructure environment will impact GCcampus

- Need to develop experience and skills in performance support as well as course-based learning

- No single one of the services (mobile, personalization, crowdsourcing, library, integration) can be expanded without impacting the remaining four.

Strategy

- Speak to the role of the School not merely as a provider of learning and learning resources, but also to its role in developing a learning culture in the public service

- Define and align to a contemporary model of online learning support

- Develop solutions incrementally rather than a rapid expansion of any individual service

- Individual projects follow, in order of priority
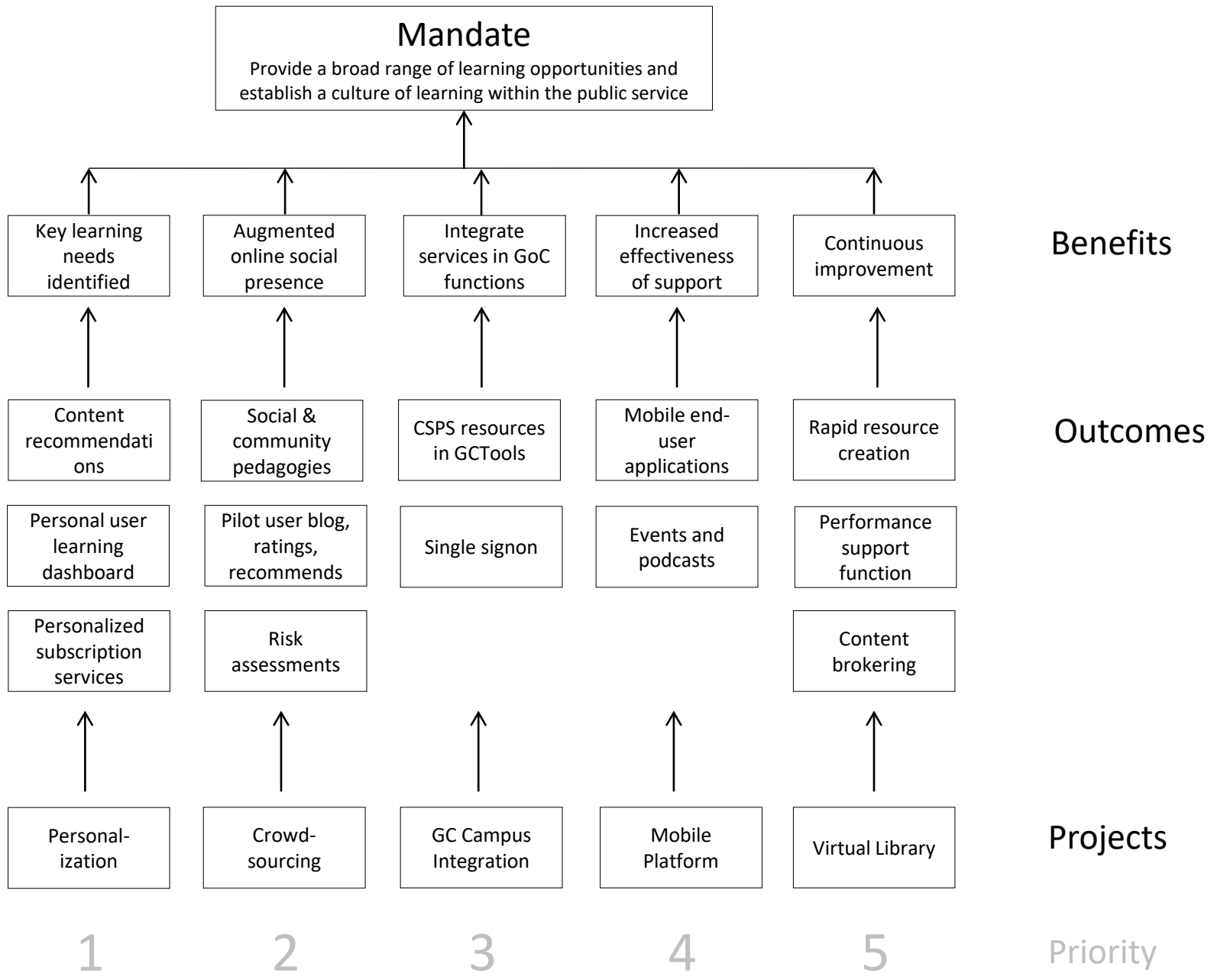
Personalization

- Existing resource base does not support personalization based on adaptive systems

- The future LMS environment (if any) must be defined

- Concrete steps can be taken to prepare staff and students
    - Content recommendations from GoC libraries
    - Personalized subscription-based services
    - User learning dashboard with metrics

Crowdsourcing

- Depends on the ability and willingness to integrate learner and third party feedback and contributions
- Necessary to develop the school's capacity and comfort level with crowdsourcing
  - Learning and development pedagogy review and pilot process
  - Pilot user blog, ratings or recommendations
  - Risk assessment for accessibility, privacy, security

Integration with other government services

- Primary target for integration is GCTools

- Desirable to integrate with human resources, competency and performance management systems

- All integration requires coordination with external services, some of which are not yet fully developed
  - Integration with single signon services – this was single most-requested feature was single-signon
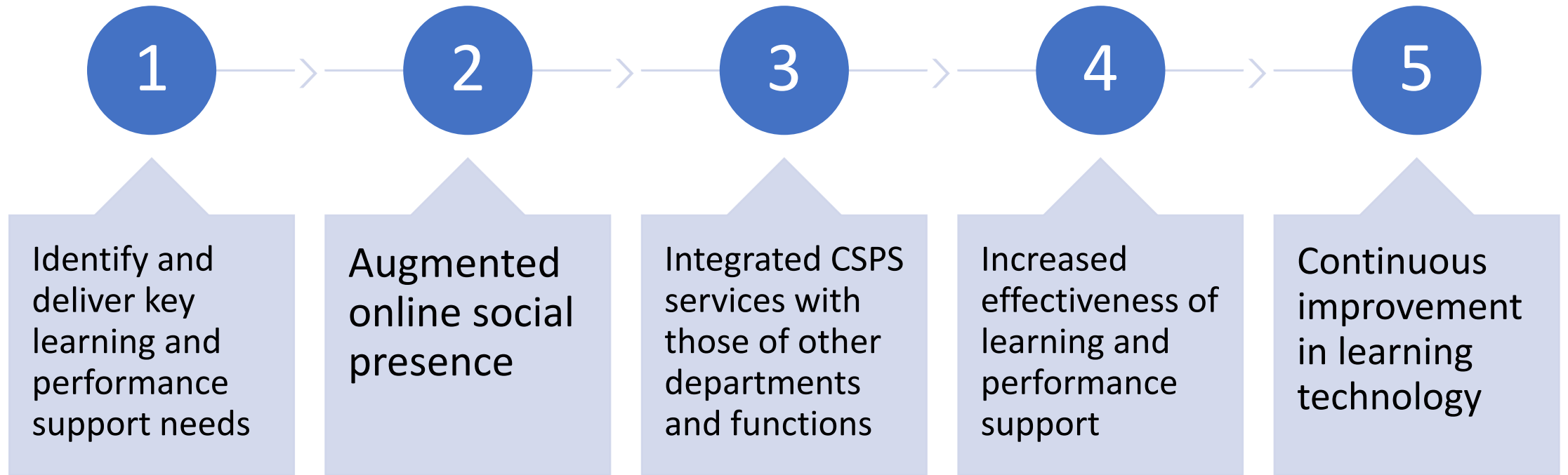 - CSPS resources launched from GCTools, GoC dashboards

Mobile

- Mobile devices are not suited to the delivery of online courses
- Not practical to develop platform-specific apps (eg. iPhone app).
  - Mobile support in this context should focus on responsive and cross-platform design (for example, HTML5-based design)
- 'Mobile learning' entails support for learner *mobility,*
  - Support for specific end-user applications
    - Includes elements of GCcampus website
    - Includes learning resources
    - Support for crowdsourcing
  - Events and podcasts in audio/video viewers

Virtual Library

- Desirable to provide access to eBooks to support online courses
- Not desirable to duplicate library services are being offered in various departments
- Purpose of a CSPS virtual library is to support performance support
- More than just eBooks; learners require access to videos, podcasts, learning objects
  - Standardized performance support function
  - Collaborative rapid resource authoring
  - Content brokering from GoC and partner libraries

Benefits

1	**2**	**3**	**4**	**5**
Identify and deliver key learning and performance support needs	Augmented online social presence	Integrated CSPS services with those of other departments and functions	Increased effectiveness of learning and performance support	Continuous improvement in learning technology

Benefits	Why*	Projects^	How	KPI
Identify and deliver key learning	- skills and competencies - assist deputy heads	P,C,M	standardize needs assessment and service requirement strategy	pre/post assessment
Augmented online social presence	- pride and excellence - purpose, values and affinity	C,I,M	responsive, personalized and relevant learning and performance support	participation rate, sense of belonging
Integrated CSPS services	- assist deputy heads	I,M	service delivery into & through 3rd party platforms	scope and relevance of support available
Increased effectiveness of learning and performance support	- growth and development - skills and competencies	M,C,L	transform service from courses to social & collaborative performance support	rate of reported errors, rate of escalated service requests
Continuous improvement in learning technology	- pursue excellence in public management - growth and development	L,C,I	ongoing needs assessment, rapid prototyping and pilots, ongoing testing and assessment	increases in other kpis

Resources

	2017-18	2018-19	2019-20	
General	0.5	2	1	3.5
Mobile	2	2	1	5
Personalization	3	3	3	9
Crowdsourcing	3	3	3	9
Library	2.5	2	2	6.5
Integration	2	3	2	7
Other	0.5	0.5	0.5	1.5
	13.5	15.5	12.5	41.5

Operational

	2017-18	2018-19	2019-20	
Software	0.04	0.02	0.02	
Travel & Training	0.05	0.05	0.05	
Other	0.01	0.01	0.01	

Budget ($ millions)

	2017-18	2018-29	2019-20	
Wages & Benefits	1.35	1.55	1.25	4.15
Operational	0.10	0.08	0.08	0.26
	1.45	1.63	1.33	4.41

Risks

	Risk	Response
	Disruption from integration of new LMS	Be involved in planning up front for LMS selection, integrate needs created by this project with LMS sourcing needs, adapt platform-agnostic approaches where possible
	Resistance from CSPS staff to employ new technology & pedagogy	Include staff in design and review process, deploy new pedagogy and technology in staff learning initiatives, ensure strong performance support and feedback mechanisms
	Resistance from GoC learners to new technology & pedagogy	Perform strong needs assessment, ensure strong staff support, be responsive and available, demonstrate results with impact assessments
	Availability of staff to run projects	Project plan will be coordinated with staffing projections
	Knowledge of new technologies	Development of learning resources by CSPS to support CSPS learning needs
	Technical issues with deployment of new technology	Employment of specialized IT consulting staff

Project Team

- Stephen Downes – principle investigator
- Bruno Emond – project lead
- Hélène Fournier – research officer
- Irina Kondratova – research officer
- Shirley MacLeod – knowledge management

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